



RESEARCH ARTICLE

Going forward as an adverb

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Abstract

This article presents an exploratory study of an innovative future adverb construction, going forward, typically meaning 'in the future, from now on' (e.g. What does this mean going forward?). Going forward probably originated in the domain of business in or around the 1970s. In this study, the spread of *going* forward is examined on the basis of over 1,500 examples from six genres of the Corpus of Contemporary American English (COCA), covering the years 1990-2019. The data is analysed in terms of four morphosyntactic variables, and the developments in the frequency of *going forward* are analysed using variability-based neighbour clustering. The results show that, in the 1990s, going forward had a modest rate of occurrence mainly in texts having to do with business and finance, but its frequency rose sharply in the 2000s and the 2010s. At the same time, the discourse contexts in which it appeared broadened from business and finance to other domains. The syntactic contexts of going forward show that it has become an adverb. The results highlight the need to incorporate social meanings such as domain preferences in the description of grammatical constructions. They also illustrate the need to consider constructional innovations at the lexical end of the grammar-lexicon continuum, in addition to highly grammaticalised constructions.

Keywords: adverbialisation; construction grammar; innovation; propagation; register

1. Introduction: constructional innovation

When a linguistic innovation becomes a part of the linguistic norms of a language community, it undergoes the twin processes of actualisation and propagation. Actualisation refers to the innovative construction's spread into new linguistic contexts (e.g. Timberlake 1977; De Smet 2012). For example, the be going to V_{inf} construction has been extended semantically from movement to intention and later prediction (Budts & Petré 2016). If the innovative pattern is a reanalysis of a pre-existing, ambiguous pattern, this reanalysis only becomes clearly visible when the reanalysed pattern moves to non-ambiguous contexts through actualisation (Langacker 1977: 92); in the case of be going to V_{inf}, for example, one way in which the prediction sense became visible was the construction's use with inanimate subjects that are usually construed as incompatible with the earlier sense of intention (Budts & Petré 2016: 19–20). Propagation (or diffusion), on the other hand, refers to the construction's spread in the language community (e.g. Croft 2000). It can be operationalised as spread among users or among usage contexts such as genres and registers. For example, the early grammaticalisation

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of be going to $V_{\rm inf}$ proceeded from generation to generation such that younger speaker cohorts extended it further than older ones did (Petré & Van De Velde 2018), and later, there seem to have been gender differences in how the construction's productivity developed in the nineteenth and twentieth centuries (Säily, Perek & Suomela 2025). There are various theoretical accounts of actualisation and propagation (see e.g. Dietrich 2024), but they generally agree that both processes manifest themselves gradually in corpus data – one aspect in which these theoretical accounts differ is whether the cause of these processes is also gradual or abrupt (see Fischer 2007 for a review).

The particular case of constructional innovation that will be examined in this article is the English futurate adverb *going forward*. Its first attestation in the *Oxford English Dictionary* (*OED*) is from 1976 and is cited in (1):

(1) The kind of attitude that we talk about is going to be awfully important **going forward**. (B. Lance in *New York Times*, 4 December 12/5; cited in the *OED*, s.v. to go forward 2)

In (1), the meaning of *going forward* can be glossed as 'in the future' or 'from now on'. It bears a family resemblance to other movement-based expressions of future, such as the aforementioned *be going to* V_{inf} construction but also other adverbial or clausal expressions such as *moving forward* or the finite variant *as we go/move forward*. This study will zoom in on *going forward*, seemingly the most salient member in this family of adverbial expressions, ¹ asking (i) how *going forward* has spread (i.e. propagation) and (ii) how its usage patterns have developed (i.e. actualisation). I will seek answers to these questions through an exploratory analysis of the construction's occurrences in the *Corpus of Contemporary American English* (COCA), a one-billionword multi-genre corpus of American English as it was used in the years 1990–2019.

Previous studies on futurate expressions in English have tended to focus on will, shall, be going to V_{inf}, or some combination of them (see e.g. Bergs 2010). Studies that take futurate adverbs and adverbials into account are much rarer and even those that do exist (Hilpert 2008: chap. 6.1; Bondi 2016) do not include going forward. As we will see later on, a possible reason for this is the rarity of the expression in all but the most recent years. Accordingly, there seems to be little previous research on the use of going forward in a futurate meaning, save for a brief note in Bhatia (2008: 172). Bhatia points out the use of the expression going forward in so-called 'Chairman's letters' to shareholders in corporate annual reports; he does not provide a syntactic context for the string, however, so it is not entirely clear if he means the adverb use that is the focus of this article. In these letters, references to future are typically optimistic, and perhaps accordingly, these references are particularly prominent when the company in question is doing poorly (Bhatia 2008: 169).

In the Oxford English Dictionary (OED), the futurate use of going forward is listed as the second sub-meaning of the phrasal verb to go forward (OED, s.v. go):

to go forward

[...]

2. *intransitive*. Originally U.S. **going forward**: (esp. in business and management) in or for the future; looking ahead or moving forward; starting from now.

Apart from stating a dialectal origin in American English, this definition makes three points about *going forward*. First, it is a use of the phrasal verb to go forward. Thus, it would

¹ This salience manifests itself in lexicographic treatments (e.g. the *OED*, see below) as well as other metalinguistic commentary (see footnote 2 and a blog post by Sesquiotic (2012), which, like the present article, concludes that *going forward* is an adverb).

make sense to analyse it as a converb construction, i.e. the use of a non-finite verbal construction as an adverbial (Haspelmath 1995). Second, the definition notes a connection to business and management. There would thus appear to be a social meaning attached to it (Silverstein 2003; Eckert 2008). This point is made clearer by the informal meta-commentary of the expression that can be found online (see Agha 2007); in it, *going forward* is associated with 'corporate doublespeak' or 'prep politician talk' and labelled a 'buzzword'.² At least for some language users, it may therefore be enregistered for the register of business discourse, which to them carries negative ideological connotations. Third, *going forward* can be paraphrased with a wide range of futurate expressions, including ones related to the time immediately following the present ('starting from now'). As noted above, it is thus an originally spatial expression that has moved to the temporal domain, as is rather typical not just in English but in the languages of the world (Haspelmath 1997).

I will claim that the first point in the OED definition is erroneous, the second essentially correct (though in need of qualification and possibly undergoing change) and the third one correct. Against the first point, I will argue that *going forward* is constructionalised as an adverb that, at least in some of its uses, can no longer be said to be a verbal construction. Relating to the second point, I will show that *going forward* does indeed have an affinity to the discourses of business and the economy but that this affinity may be weakening.

The approach to *going forward* in this study broadly follows usage-based construction grammar (e.g. Goldberg 2006; Diessel 2019). In other words, I consider *going forward* to be a conventionalised pairing of form and function, and set out to find out what kind of form and function it has. Where I depart from some constructionist work is in my definition of constructions as conventions (Silvennoinen 2023), i.e. as social rather than cognitive facts (see Schmid 2020). In other words, when I discuss the innovative character of *going forward*, I mean that it is innovative with respect to pre-existing linguistic norms of the language community. From this, it also follows that this study operationalises propagation in terms of the construction's spread in registers rather than in terms of speculative inferences about individual language users' construct-i-cons, something that the present dataset does not allow me to do in a useful way in any case.

After this introduction, I will consider the place of *going forward* among the various future expressions of English in section 2. In section 3, I will present the data and methods used in this study. Section 4 presents the results of the corpus analysis. In section 5, the results will be discussed from two perspectives. First, the usage patterns will be used to justify the claim that *going forward* has become constructionalised as an adverb and to formulate an initial sketch of the construction. Second, the spread of *going forward* will be discussed against the literature on constructional innovation. Section 6 then concludes the article by summarising the main findings and by suggesting further avenues for research.

2. Expressing the future in English

Future time reference has been studied extensively in English and beyond. Quite understandably, however, most of the studies have focused on future 'grams' or grammatical morphemes with futurate meanings (Bybee, Perkins & Pagliuca 1994; Dahl 2000; Hilpert 2008; Dahl & Velupillai 2013). In English, the main focus of attention has been the future auxiliaries will and shall as well as the periphrastic semi-auxiliary construction be going to $V_{\rm inf}$, with occasional forays into other constructions such as the futurate use of the present tense (for a review, see e.g. Bergs 2010). The focus on grams has meant that other means for

² Source: www.urbandictionary.com/define.php?term=going%20forward (consulted on 9 July 2024).

expressing future time reference have been overshadowed, and this is also true for adverbial expressions.

Temporal adverbs with future reference are partly an open-ended category. In his study of the futurate present in English, Hilpert (2008: 200) uses a pre-defined set of adverbial expressions as a way to create a dataset with unambiguously futurate cases. The set of expressions is the following:

another time, before (X) long, coming / following / next Monday / Tuesday ... Sunday, coming / following / next week / month / year, coming X year, eventually, in X minutes / hours / days / weeks / months / years, in a (X) while, in the (X) future, later, one fine day, shortly, someday, sometime, soon, and tomorrow (Hilpert 2008: 200)

Even this list is incomplete: it lacks from now on, from here on out and the article-free in future as well as more specialised expressions such as come X (e.g. come spring). Following Torres Cacoullos & Walker (2009: 332-3), temporal adverbials may furthermore be divided into those that refer to a specific time (e.g. in the morning, at six o'clock, now) and those whose reference is non-specific (e.g. always, soon). Going forward belongs to the latter group: it indicates a general future time, which is determined deictically as following a reference time, similarly to many other adverbial future expressions (Quirk et al. 1985: 530-1). What going forward contributes more than other future adverbs is a notion of control: the future it describes is often portrayed as being under the control of the speaker/writer or some other person whose viewpoint is adopted. In the case of the future, this control is by nature an intention. In the literature on future grams, it is frequently noted that motion verbs accompanied by allative expressions frequently develop into future constructions through a phase of expressing an intention to move, which is then generalised into intention to commit a non-motion action (e.g. Bybee, Perkins & Pagliuca 1994). Bybee, Perkins & Pagliuca (1994: 254) hypothesise that 'all futures go through a stage of functioning to express the intention, first of the speaker, and later of the agent of the main verb'. From this intention reading, a marker expressing future prediction may develop. While the focus of Bybee, Perkins & Pagliuca is on future grams, we can presume that the same is true for nongrammaticalised or not fully grammaticalised motion-based future constructions, such as going forward. Indeed, intention is a plausible motivation for the emergence of going forward in business discourse, as suggested by Bhatia's study (see above).

As a construction that originates in the semantic field of motion, *going forward* belongs to the broad category of expressions that conceptualise time in terms of space (Lakoff & Johnson 1980; Haspelmath 1997; Moore 2014). More specifically, it draws on a cognitive schema according to which the future is in front (Boroditsky 2001) and moving forward in time is expressed similarly to moving forward in space. This link between motion in space and motion in time has a metonymic character: moving in space always takes time and is thus always accompanied by movement in time.

Two accounts suggest themselves for the origin of *going forward* as a future expression. On the first, *going forward* instantiates a conceptual metaphor (see Lakoff & Johnson 1980). The metaphor would probably be in the 'Moving ego' family of temporal metaphors, in which movement in time is expressed as movement in space (see Moore 2014); other examples include *We are approaching Christmas*. On the second account, the spatial meaning of *going forward* has become bleached, with only the temporal meaning remaining. This account, which has also been suggested for *be going to* V_{inf} (Bybee, Perkins & Pagliuca 1994), draws on the metonymic link between spatial and temporal movement discussed above. While this study cannot conclusively adjudicate between these two accounts, I find that the metonymy account is more plausible for *going forward*. One reason for this is that in many if not most

instances, it is not clear what the mover is when *going forward* is used. This renders a 'Moving ego' motivation questionable. The metonymy-based semantic bleaching of spatial meaning is also consistent with the development of *going forward* into a temporal adverb, as will be suggested in section 5.1.

3. Data and methods

This study aims at charting the spread and development of *going forward* in the (American) English language community. For this reason, corpus data representing the most recent stages of English was sought. The data for this study comes from the Corpus of Contemporary American English (COCA, Davies 2008–). COCA contains approximately one billion words of present-day American English, stratified by genre and year, from the years 1990 to 2019. COCA is particularly suited for this study because it enables me to track the spread of going forward across genres (or registers; see Biber & Conrad 2019) and time. Propagation is thus operationalised in this study as increase in genre variability. In this study, the following genres were considered: academic journals, fiction, magazines, newspapers, spoken language, and television and movies; the remaining two genre subcorpora (blogs and web texts) do not cover the entire time span and are therefore not as revealing when it comes to the diachronic genre-based spread of *going forward*. Note that the subcorpus for spoken language consists of transcripts of unscripted television and radio talk rather than casual conversation in private settings. This fact will have an effect on the interpretation of my findings. Each genre subcorpus consists of yearly subcorpora that are roughly the same size, i.e. a little over 4 million words on average; the genre balance thus stays the same throughout the time period covered by the corpus in the genres that were considered. The overall word count is approximately between 120 and 130 million words per subcorpus, and approximately 750 million words altogether (out of roughly one billion words in the corpus in total). Table 1 shows the composition of the dataset.

In a pilot study, going forward was examined in the sister corpus of COCA, the Corpus of Historical American English (COHA, Davies 2010), which represents American English starting from the early 1800s. COCA and COHA are relatively closely matched in genre composition and part of their material is overlapping. In COHA, futurate going forward only begins to appear in the 1990s, the decade from which COCA's coverage starts. Because of this, the COHA data would not have yielded any added value, and therefore this article will exclusively focus on the data from COCA.

Table I. The data

Subcorpus	N
Academic journals (ACAD)	120,988,348
Fiction (FIC)	119,505,292
Popular magazines (MAG)	127,352,014
Newspapers (NEWS)	122,959,393
Spoken (SPOK)	127,396,916
TV/movies subtitles (TVM)	128,013,334
Total	746,215,297

The COCA data was collected by querying the lemma go followed immediately by forward.³ This yielded 2,660 cases. After that, examples were analysed manually and non-futurate tokens of the string going forward were discarded (e.g. (2)). Unclear tokens of futurate going forward were removed from the dataset as well (e.g. (3), in which it is not clear that the meaning is futurate, and (4), in which the sentence structure is unclear). This resulted in 1,717 cases of futurate going forward (64.5% of the raw data).

- (2) Let us overcome the temptation before us by going forward with women's liberation and human liberation. (COCA, FIC, 1995)
- (3) Charles, going forward from here, what does this event do for the president? (COCA, SPOK, 2011)
- (4) And again, he is building the case, which is coalition of the unwilling will repeat, I'm sure, going forward, that there are other steps to take between inspections and going to full war status (COCA, SPOK, 2003)

Finally, to guard against skew caused by idiolectal preferences or priming effects, duplicate tokens were removed manually, and each corpus text was allowed to contribute only one token to the data.⁴ Extra tokens were removed using the function distinct in the dplyr package in R. When the same text has several tokens, this function only includes the first one. This yielded a final dataset of 1,517 tokens.

These tokens were then analysed using both corpus metadata and manual annotations of their morphosyntactic properties. Corpus metadata (year, genre, subgenre) was used to analyse genre distribution and the diachronic frequency distribution of *going forward*; this corresponds to the first research question, about propagation. The diachronic frequency distribution was analysed further by using variability-based neighbour clustering to detect temporal stages in the use of *going forward*. Variability-based neighbour clustering is an application of hierarchical agglomerative clustering in which the clusters must be temporally adjacent (Gries & Hilpert 2008, 2012). It thus creates a bottom-up, data-driven periodisation of historical data. For this study, variability-based neighbour clustering was performed using the vnc.individual function of Gries & Hilpert (2012). In this function, similarity between two clusters is measured in terms of standard deviation. The two clusters that are the most similar are amalgamated using the method of averaging (see Levshina 2015: 310–11). In other words, the algorithm calculates the average distances between the

³ The same query was also performed for *forwards*. Since it only yielded two tokens of futurate *going forwards*, these were not included in the analysis.

⁴ A reviewer questions the methodological choice of allowing only one token per text on the grounds that priming can have an effect on linguistic innovation. In this study, the corpus is used as a sample of the language use of a community. Allowing only one token per text is an attempt to avoid accidental oversampling caused by the choice of texts that happen to be included in the corpus. To illustrate the kind of over-sampling that can happen if this precaution is not taken, one of the corpus texts, a transcript of CNN's Cuomo Prime Time, contains no fewer than five variations of the pattern 'what does this mean going forward?':

⁽i) (a) No, listen, let's take – let's take a quick break, and then let's talk about what this means tomorrow, and going forward, and what the A.G. is going to have to answer for.

⁽b) Phil Mudd, Mike Rogers, thank you very much for helping us understand what this will mean **going forward**.

⁽c) So, we're going to bring in Cuomo's Court into session, two very capable legal minds, to figure out what this reporting means, going forward, and not.

⁽d) The question is what does it mean tomorrow and **going forward**?

⁽e) All right, few more thoughts of what this is going to mean **going forward**. (COCA, SPOK, 2019) Allowing all these cases into the dataset would potentially lead to overestimating the importance of this pattern.

members of each cluster, and the two clusters whose average distance is the smallest are combined into one cluster. The procedure is continued until there is only one cluster.

Finally, manual annotations were done for four variables to analyse the usage patterns of going forward; this corresponds to the second research question, about actualisation. The variables are (i) the structure modified by going forward, (ii) the position of going forward in the structure that it modifies, (iii) the form of the VP in clauses modified by going forward and (iv) the person and animacy of the subject in finite clauses modified by going forward. The first two variables are based on previous studies of adverbial expressions (e.g. Hasselgård 2010), while the latter two are based on previous studies of other future constructions, notably will and be going to $V_{\rm inf}$ (e.g. Torres Cacoullos & Walker 2009; Denis & Tagliamonte 2018).

4. Results

This section presents the results of the corpus analysis. Section 4.1 will answer the first research question ('how has *going forward* spread?'), while section 4.2 will answer the second one ('how have the usage patterns of *going forward* developed?').

4.1. How did going forward spread?

In this section, the focus will turn to the diachronic distribution of *going forward* in the data. Figure 1 shows the distribution of tokens of futurate *going forward* by year. The figure displays a steep rise in the construction's frequency, which becomes steeper in later years, especially after 2015.

To further analyse the development in the frequency of *going forward*, I applied variability-based neighbour clustering to the data shown in figure 1. According to a scree plot, four clusters is an optimal solution for the dataset (see the Appendix for details). The

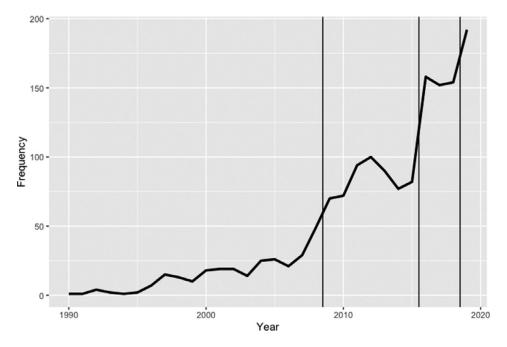


Figure 1. The temporal distribution of going forward in COCA

periods to which these clusters correspond are distinguished by black vertical bars in figure 1. The first period corresponds to the years 1990–2008, during which the frequency of *going forward* is low in all genres studied. The second period is the years 2009–15, during which the frequency remains rather steady but higher than in the first stage. The third period is the years 2016–18. In this stage, the frequency is again higher than before. Finally, the last year of the corpus, 2019, forms its own cluster (and thus period), in which the frequency of the construction is at its highest. The number of tokens per period, as well as the proportion of data in each period, is shown in table 2 (note that, because of rounding, the percentages do not add up to 100.0).

Figure 1 displays the overall rise in the frequency of the construction in the data. Next, we will turn to its distribution according to the genres of the corpus, shown in figure 2. Note that, because the corpus is balanced in terms of genre and the genre subcorpora are thus of roughly even sizes, the data in figure 2 are presented as raw frequencies. The subcorpus with the highest prevalence of *going forward* is the one for spoken language, which accounts for

Table 2.	Periods	and num	bers of	f words
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Period	N (%)
1990–2008	276 (18.2)
2009–15	585 (38.6)
2016–18	464 (30.6)
2019	192 (12.7)
Total	1,517 (100.0)

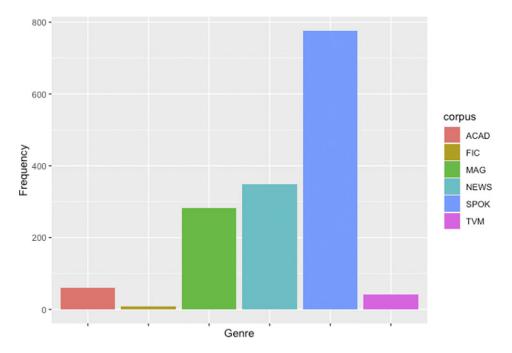


Figure 2. Genre distribution of going forward in COCA

over half of the data. The other two subcorpora in which *going forward* is rather common are magazines and newspapers. What is common for all these subcorpora is that they represent media genres that typically discuss current affairs. The other subcorpora contain very modest numbers of *going forward*.

Figure 3 shows the genre distribution according to year. The spoken subcorpus has the highest frequency of *going forward* from the late 1990s onwards. However, it is only in 2008 that we see a steep rise in this subcorpus; recall that the first period identified in the variability-based neighbour clustering corresponds to these years. Newspapers are the next genre to display a rise in frequency, starting in 2009; this corresponds to the second period in figure 1. Finally, after the mid 2010s, magazines quickly increase their rate of occurrence for *going forward*, which corresponds to the third period. In the fourth period, comprising only of the year 2019, the spoken subcorpus and magazines reach even higher rates of *going forward* than before.

To summarise, going forward has spread from one genre to the next, starting with television chat shows and radio (the spoken subcorpus) and moving on to print media, first in newspapers and then in magazines. Recall from section 2 that going forward has been assumed to have originated in business discourse. This leads to the hypothesis that its spread should begin from texts that discuss financial and commercial issues before moving on to other topics. To check this hypothesis, I will consider the subgenre distribution of going forward in two subcorpora: magazines and newspapers (the spoken subcorpus is divided into subcorpora by television channel, which makes it less informative). Figure 4 shows the overall subgenre distribution of going forward in the magazines, while figure 5 shows the same data by year. Figures 6 and 7 do the same for the newspapers. The data in figures 4 and 6 have been normalised to 1,000,000 words, but for figures 5 and 7 this was not feasible due to the fact that the corpus documentation does not provide this information for each year. In both genres, the subgenre in which going forward has the highest normalised frequency has

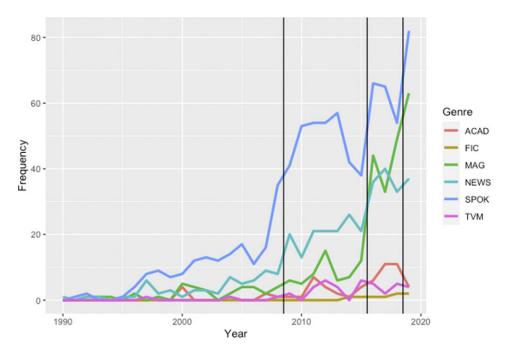


Figure 3. Genre distribution of going forward by year in COCA

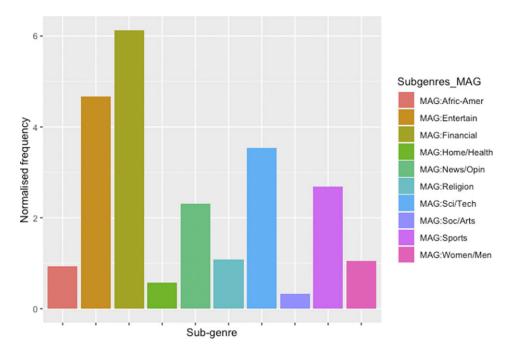


Figure 4. Subgenre distribution of *going forward* in the magazines subcorpus; frequencies normalised to 1,000,000 words

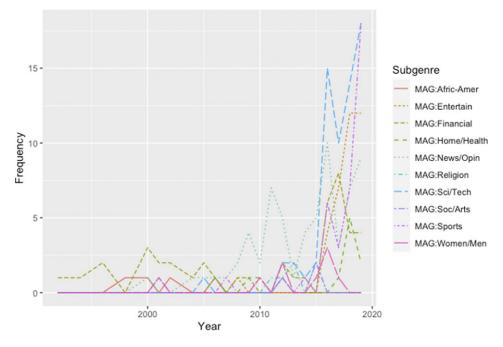


Figure 5. Subgenre distribution of going forward by year in the magazines subcorpus

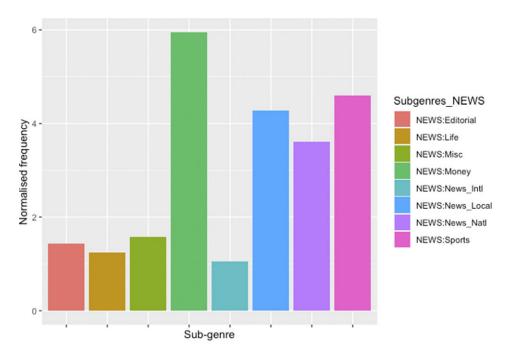


Figure 6. Subgenre distribution of $going\ forward\ in\ the\ newspapers\ subcorpus;$ frequencies normalised to 1,000,000 words

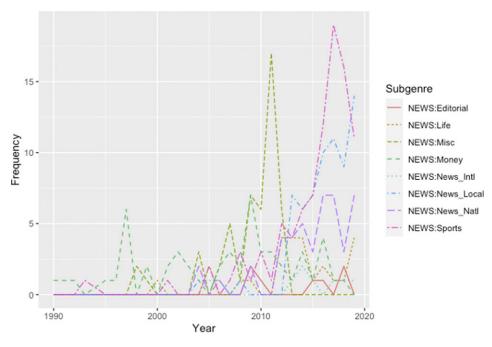


Figure 7. Subgenre distribution of going forward by year in the newspapers subcorpus

to do with business and the economy: in the magazines, the subcorpus in question is MAG: Financial, while in the newspapers, it is NEWS:Money. When we look at the temporal distribution, these subgenres are particularly prominent in the early years of the corpus (albeit with low overall rates of occurrence), and other subgenres begin to use *going forward* later. These findings are consistent with the hypothesis that *going forward* has spread from the domain of business to other domains.

Indeed, a manual inspection of the earliest examples shows that they predominantly discuss business and finance, as in (5) and (6), the first two examples from the dataset:

- (5) "It would look like a good market for us going forward," Schipke said. (COCA, NEWS, 1990)
- (6) I have a feeling that yes, we should have paid more taxes in the early 80's, yes, we should paid [pay] higher taxes **going forward**. (COCA, SPOK, 1991)

By contrast, the cases are thematically much more varied in the later years of the dataset. While business discourse continues to appear, as in (7), other themes are also prominent, as shown in (8), which is about sports. Nevertheless, even in domains not directly about money or the economy, cases of *going forward* often appear in texts that discuss business. A case in point is (9), which is from MAG:Entertainment but discusses the business prospects of an entertainment company.

- (7) What could be more of a headache to Facebook than the monetary costs of the settlement is any oversight of its business **going forward**. (COCA, MAG, 2019)
- (8) All things considered, Gibbons was optimistic about the fighter's prospects **going forward**. (COCA, MAG, 2019)
- (9) Horn also made it clear to the audience made up of exhibitors from around the globe that theatrical is still "the cornerstone" of Disney **going forward**. (COCA, MAG, 2019)

4.2. How did the usage patterns of going forward develop?

Section 4.1 described the spread, or propagation, of *going forward* in the language community of American English. This section will focus on usage patterns, i.e. the linguistic context of *going forward*, both synchronically and diachronically, by considering four morphosyntactic variables that were annotated manually (see section 3). The purpose of this is to analyse the actualisation of *going forward* as an innovative construction. In addition, it will provide evidence for the preliminary sketch of the construction that will be provided in section 5.1.

The first variable is the structure modified by *going forward*. This variable is a two-way classification between cases in which *going forward* modifies a clause, as in (10)–(11), or a noun phrase, as in (12). The clause may be either finite (10) or non-finite (11).

- (10) But I would learn from that mistake, going forward. (COCA, FIC, 2015)
- (11) Do you think this experience has made you better able to handle conflict as a couple, now and **going forward**? (COCA, MAG, 2010)
- (12) And that's the question for the 57 days **going forward**. (COCA, SPOK, 2012)

Cases were counted as modifying a phrase only when this was unambiguous. In (12), for example, the only plausible scope for *going forward* is *the 57 days*. Because of the unambiguousness requirement, cases such as (13) were not counted as modifying a phrase since it is possible that *going forward* modifies the entire clause as a clause-medial adverbial.

(13) The path **going forward** is clear. (COCA, ACAD, 2017)

The results of this analysis are shown in figure 8. The left-hand side of the figure shows the overall frequency of the categories, while the right-hand side shows their distribution in the four periods identified in the variability-based neighbour clustering analysis. As expected, clauses were by far the more frequent category, and this finding is consistent across periods (right-hand side of figure 8) and genres. Approximately 12 per cent of the cases of *going forward* in the data modified a noun phrase. Interestingly, the share of this category decreases over time. An examination by genre (not shown here) indicates that this change is driven by the spoken subcorpus, in which the second period has a much higher number of phrasal cases than do the other periods. The possibility of modifying noun phrases along with clauses has implications for the categorial status of *going forward*. I will return to the phrase-modifying use of *going forward* in section 5.1.

The second variable is the position of *going forward* with regard to the structure that it modifies. Position was divided into three categories that are commonly used in studies on adverbials: initial, medial and final (see Hasselgård 2010 for extensive discussion). These are illustrated in (14)–(16), respectively. Note that the medial category also includes cases that are ambiguous between a medial clausal reading and a phrasal one. These cases form a majority in the medial category (59 out of 83). In phrasal cases, *going forward* is virtually always final, and accordingly, the position of *going forward* is

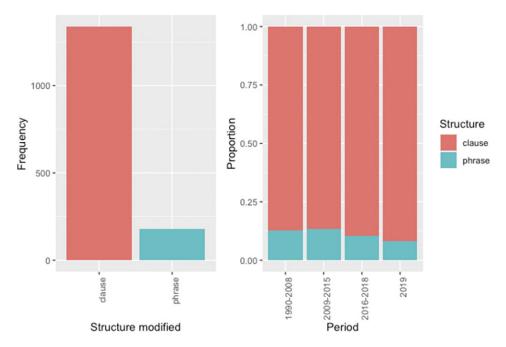


Figure 8. Structure modified by going forward

only really variable in clausal contexts; for this reason, phrasal cases were not considered for this variable.⁵

- (14) But **going forward**, my department is going to be devoting more resources and attention to Chinatown. (COCA, TVM, 2011)
- (15) So, your message **going forward** is what? (COCA, SPOK, 2019)
- (16) I hope we can be helpful **going forward**. (COCA, TVM, 2011)

Temporal adjuncts generally favour final position, although initial and even medial position are also found fairly often (Biber *et al.* 1999: 801–2; Hasselgård 2010: 57). Similarly, non-finite clauses functioning as adverbials heavily favour final position (Kortmann 1995: 205; Hasselgård 2010: 58). These findings are replicated for *going forward*: as shown in figure 9, final position is overwhelmingly the most frequent option, followed by initial position at approximately 15 per cent. These findings are consistent across genres (data not shown here).

The third variable is the VP of the modified clause. Cases that modify a noun phrase are not included in this variable. The categories are present tense, past tense, will, be going to V_{inf} , other modal, and non-finite. These are illustrated in (17)–(22), respectively. Will and be going

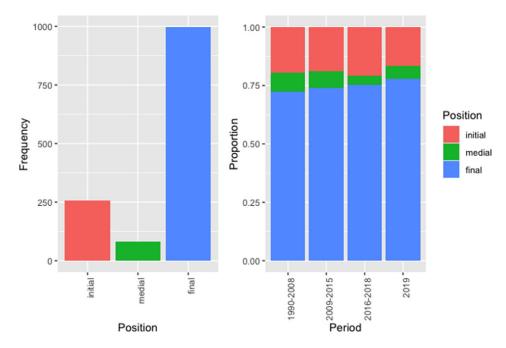


Figure 9. Position of going forward

 $^{^{5}}$ In (i), a phrasal case appears to have a medial *going forward*:

 ⁴⁸ minutes from now, the president of the United States in the Oval Office for the first time in his
presidency addressing the American people, his plan going forward to deal with the BP oil spill.
(COCA, SPOK, 2010)

In (i), going forward is positioned between the head noun of the noun phrase (plan) and its complement (to deal with the BP oil spill). Even in this case, going forward appears after the noun.

to $V_{\rm inf}$, are considered separately because they are widely perceived to be the main future constructions in present-day American English, with neither having a definite edge over the other in terms of frequency (Torres Cacoullos & Walker 2009; Denis & Tagliamonte 2018).

- (17) The path **going forward** is clear. (COCA, ACAD, 2017)
- (18) **Going forward**, he said, the children carried the family's hope. (COCA, NEWS, 2014)
- (19) The Latino population will help lead the economy going forward. (COCA, NEWS, 2001)
- (20) All right, few more thoughts of what this <u>is going to</u> mean **going forward**. (COCA, SPOK, 2019)
- (21) But I would learn from that mistake, **going forward**. (COCA, FIC, 2015)
- (22) <u>To influence</u> our nation's path **going forward**, both words and actions are needed from the higher education community and its leaders. (COCA, ACAD, 2016)

The genre distribution and diachronic development of the VP categories are shown in figure 10. The most common category is the present tense. This is followed by will and other modals. The be going to $V_{\rm inf}$ construction is approximately tied with non-finite forms (which is equivalent to the non-finite category in figure 8). The much lower frequency of be going to $V_{\rm inf}$ compared to will is not in line with previous studies of future expressions in English (Torres Cacoullos & Walker 2009; Denis & Tagliamonte 2018), which have found the two constructions to be approximately level in prevalence.

For this variable, it is worth zooming in on the diachronic developments in genres. Figure 11 shows the distribution of the VP categories across genres and the four periods. As expected, the VP categories pattern differently in different genres. The futurate present is

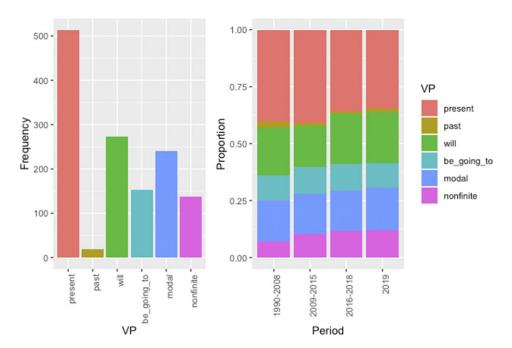


Figure 10. VP of the clause modified by going forward

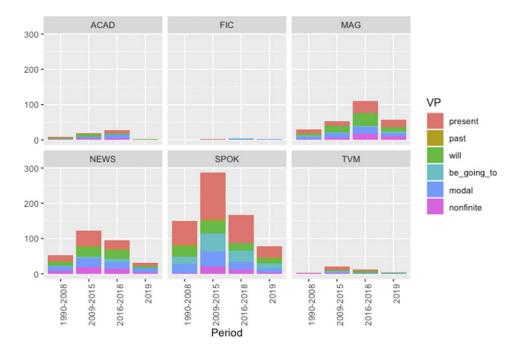


Figure 11. VP of the clause modified by going forward by genre and period

particularly strongly represented in the spoken subcorpus, which also has high rates of be going to $V_{\rm inf}$. By contrast, magazines and newspapers have hardly any cases of be going to $V_{\rm inf}$. One explanation for this pattern is the horror aequi phenomenon, i.e. the avoidance of similar or identical segments in close proximity (e.g. Rohdenburg 2003). This would lead to the disuse of going forward in clauses in which the future is marked by be going to $V_{\rm inf}$. It is likely that this principle is followed more closely in edited written genres, such as magazines and newspapers, compared to spoken language, even television chat shows.

The fourth and final variable to be considered is the person and animacy of the subject in the clause modified by *going forward*. The subject is taken to indicate the degree of volition and intention of the future meaning in the clause: only animate subjects are capable of having intentions (Bybee, Perkins & Pagliuca 1994: 155–6; Torres Cacoullos & Walker 2009: 331–2; Denis & Tagliamonte 2018: 418–19). If *going forward* stems from a converbal source construction (in which the implied subject of *going forward* would be the same as that of the clause modified by it), we would expect it to favour subjects that are the moving, intentional entity, especially in its early uses. As many other studies do, this study conflates animacy with person, arriving at a six-part categorisation: first person, second person, third person animate, third person collective, third person dummy and third person inanimate. These categories are illustrated in (23)–(28), respectively. The first and second persons are by definition animate. Organisations and other collective entities form their own category because they can be regarded as metonymically human. In addition, this is a salient subject type in business discourse (e.g. companies, teams), which is the origin of *going forward*. Dummy subjects are also categorised separately. They are placed between the animate and

⁶ Following Zaenen *et al.* (2004), the demarcation point between (a group of) humans and an organisation is 'having a collective voice/purpose'. Accordingly, *Republicans* is categorised as an organisation (i.e. the Republican party), while *investors* is classified as a group of humans.

inanimate categories because, while they do not refer to an animate entity, they frequently express subjective judgements, which presuppose an animate cogniser's perspective.

- (23) And so, even if he drops out tomorrow, <u>we</u> have a lot to reckon with **going forward**. (COCA, MAG, 2016)
- (24) You won't see much more shopping from them **going forward**. (COCA, NEWS, 2016)
- (25) But **going forward**, Hillary Clinton has to take this campaign on. (COCA, SPOK, 2008)
- (26) **Going forward**, the company ought to recover its 13% historic growth rate. (COCA, MAG, 2000)
- (27) **Going forward**, it will be interesting to see what role he takes on as the hip-hop landscape shifts rapidly around him. (COCA, MAG, 2016)
- (28) <u>Innovation</u> is going to be the driving force of this company **going forward**. (COCA, MAG, 2006)

Figure 12 shows the distribution in subject person and animacy. Inanimate subjects are the most common category, accounting for almost half of the data in all periods. First-person and animate third-person subjects are also reasonably common.

One striking diachronic pattern in figure 12 is the decrease in second-person subjects. Figure 13 shows that this decrease is mainly driven by the spoken subcorpus and, to a lesser extent, magazines and newspapers. In all of these genres, second-person subjects are attested in the first two periods but they disappear almost completely from view in the latter two. A reviewer suggests that this could reflect a decreasing association with volition. At the same time, the other animate subject types (first person and animate third person)

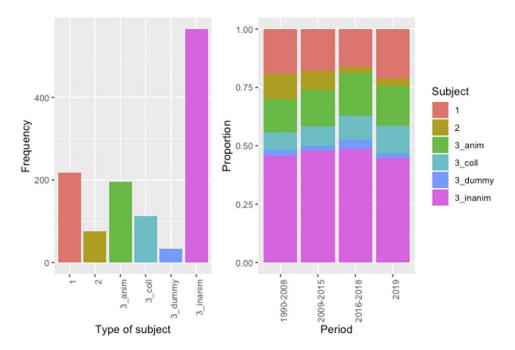


Figure 12. Subjects in clauses modified by going forward

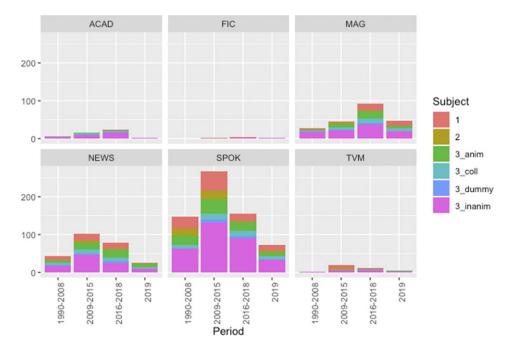


Figure 13. Subject of the structure modified by going forward by genre and period

remain frequent or even increase their share of the cases, which makes this explanation hard to sustain.

5. Discussion

5.1. Going forward as a construction

In this section, I will provide a basic constructional sketch of *going forward* on the basis of its usage patterns and genre distribution. In particular, I will defend the view that *going forward* has developed into an adverb, and I will contrast this analysis with the alternative view, embodied in the *OED* entry for *going forward*, which takes it to be the *-ing-*participle of the phrasal verb *go forward*.

As pointed out in section 1, the *OED* considers *going forward* to be a special use of the phrasal verb *to go forward.* Formally, this would make it an *-ing-*clause used adverbially. It would thus feel natural to place *going forward* in the category of free adjuncts (Kortmann 1991, 1995; Fonteyn & Van De Pol 2016), illustrated in (29):

(29) **Inflating her lungs**, Mary screamed. (Kortmann 1991: 1)

However, there are reasons to believe that *going forward* has constructionalised as an adverb. Its use as an adjunct would therefore follow from its categorial status, since adjuncts are one of the major syntactic functions of adverbs. For one thing, *going forward* readily appears in coordination with other adverbs, such as *now* in (30):

(30) Do you think this experience has made you better able to handle conflict as a couple, now and **going forward**? (COCA, MAG, 2010)

Another, more serious argument for analysing *going forward* as an adverb is provided by the syntactic structures that it modifies. An adjunct modifies a clause or a verb (e.g. Hasselgård 2010). This applies to most cases of *going forward*, but not all: those cases that modify a noun phrase, such as (31), fall outside the class of free adjuncts. In (31), the only plausible interpretation is that *going forward* modifies *the company's strategy*. The head nouns are often forward-looking items such as *strategy*, *opportunity*, *choice*, *plan* and *policy*.

(31) It pointed us to a newly posted piece by O'Neill in which he outlines the company's strategy **going forward** (COCA, MAG, 2018)

Accepting the analysis of *going forward* as an *-ing* clause for a moment, the use of *going forward* as a phrasal modifier is syntactically somewhat unusual. NPs can have non-finite post-modifiers, but *-ing* participials are typically interpreted as being similar to relative clauses (e.g. the people practising yoga ~ the people who practise yoga) (Biber et al. 1999: 630; Huddleston & Pullum et al. 2002: 1256). This kind of interpretation is not available for (31) (*?the company's strategy that goes forward*). NPs can also have non-finite complements, but these are assumed to always be to-infinitive clauses (e.g. a plan to change the world) (Huddleston & Pullum et al. 2002: 1259) or *-ing* clauses augmented by of (e.g. the idea of making a soufflé) (Biber et al. 1999: 645–6, 653–5). Because of this, a clausal interpretation of going forward is unlikely, at least in its phrasal modifier use. I propose that, instead, going forward should be regarded as an adverb. On this proposal, going forward has undergone adverbialisation. It would thus join the ranks of constructions such as maybe and, historically, methinks as clausal structures that have become reanalysed as adverbs (see Palander-Collin 1999; López-Couso & Méndez-Naya 2016).

To readers familiar with traditional grammar, justifying adverb status by an appeal to nominal modification may seem outlandish. It is true that, as a main rule, it is adjectives that modify nouns, while adverbs modify clauses, verbs, prepositions, adjectives and other adverbs, as well as the phrasal projections of all these lexical categories. There are, however, exceptions to this generalisation, and one of them is that adverbs can occur as nominal modifiers (Quirk et al. 1985: 453–4; see also Payne, Huddleston & Pullum 2010). Consider (32) and (33):

- (32) (a) [The people **outside**] have impeccable taste.
 - (b) [The **downstairs** neighbours] are being loud again.
- (33) During the early part of last season, it was anticipated that the low markets for stock in the west would materially reduce importation, but [the **revival subsequently** of business] led to a demand for improved stock. (Payne, Huddleston & Pullum 2010: 44)

The words *outside* and *downstairs* would usually be classified as adverbs, and (32) suggests that nominal modification is a function available for this lexical category. The phrasal modifier use of *going forward* would thus be analogous to (32a). While the category status of these kinds of items is sometimes in dispute,⁷ even uncontroversial adverbs such as

⁷ There exists an alternative analysis for the cases in (25). Proponents of this view (most prominently Jespersen (1924) and Huddleston & Pullum *et al.* (2002)) admit such cases but note that the lexical items in this class behave rather differently from manner adverbs derived with *-ly. Outside* has unambiguous prepositional uses (e.g. *the people outside the house*), and because of such cases, Huddleston & Pullum *et al.* propose that even what they call intransitive uses, such as (25a), should be counted as prepositional. Once the class of intransitive prepositions is established, words like *downstairs* can be ascribed to it as well. As in (25b), some of such 'prepositions' can also function attributively, i.e. pre-modifying a noun. On this view, *going forward* might be analysed as an intransitive preposition. According to Huddleston & *Pullum et al.* (2002: 615), other temporal 'prepositions' of this type are *now, then, when, afterward(s), beforehand, henceforth* and *thenceforth*. An unexpected advantage of analysing *going forward* as an

subsequently in (33) can appear as nominal post-modifiers (Payne, Huddleston & Pullum 2010). In my data, it is possible to coordinate *going forward* with a -ly adverb used as a nominal post-modifier, as in (34).

(34) This opens the door to a great discussion of our responsibility **both historically and going forward** to live out our faith in protecting the sanctity of human life. (COCA, NEWS, 2008)

As noted, *going forward* frequently attaches to a noun with a future-oriented meaning. Another context in which it may co-occur with such nouns is when it is used in medial position, as in (35). In fact, as noted in section 4.2, the medial position is ambiguous between two syntactic analyses: in (35), *going forward* can be considered to be either a clausal or a phrasal modifier. It is possible that the medial position has been a bridging context (Heine 2002), or 'enabling use' (Dietrich 2024), for the adverbialisation of *going forward*.

(35) The plan **going forward** will be to continue building out the services that it offers around its sales enablement software, alongside the core product itself. (COCA, MAG, 2019)

To summarise, we have established that *going forward* has become constructionalised as an adverb (cf. Rostila 2006; Traugott & Trousdale 2013). It is thus a separate node in the construct-i-con rather than just an inflectional form of *to go forward*. Represented in the Construction Grammar formalism of Hoffmann (2022), *going forward* would look something like (36). Formally, it is phonologically fully specified (apart from the variation between *forward* and *forwards*) and, as a whole, has the lexical category of adverb; it inherits the morphosyntactic behaviour of this wider category. Functionally, it is a future operator that has either an event (clause) or entity (noun phrase) in its scope; this modified element is marked with subscript 2. It also often marks this larger unit as belonging to the discourse domain of business or administration. This kind of social meaning is specified as pragmatic information.

(36) The going forward construction

FORM: PHONOLOGY: / gouin 'forward /1

MORPHOSYNTAX: ADV₁

MEANING: SEMANTICS: FUTURE₁(EVENT₂) **or** FUTURE₁(ENTITY₂)

PRAGMATICS: [often associated with business and

administration]₂

5.2. Constructional innovation

The diachronic register analysis showed that *going forward* has spread from one main COCA genre to the next over the thirty-year period covered by the corpus. The spoken subcorpus was the first in which *going forward* had a sustained presence, and while the construction has spread to other genres, notably magazines and newspapers, it has also increased its frequency in the spoken data. At the same time, *going forward* has spread from the domain of business to other domains, such as sport and politics.

intransitive preposition would admittedly be that it establishes a parallel to other free adjunct -ing participials that have become conventionalised, such as regarding and considering. They are now often analysed as (transitive) prepositions. Unfortunately, the notion of intransitive preposition extends the notion of preposition almost beyond recognition. Since the majority of linguists do not seem to have adopted the preposition analysis, I will not do so either.

The analysis of the linguistic features of *going forward* revealed few changes in how the construction is used. It thus seems to have entered the language more or less as a readymade, fully actualised package. This contrasts with verbal future constructions such as *be going to* V_{inf} , whose grammaticalisation had a slow gestation period that some would argue is still on-going (e.g. Danchev & Kytö 1994; Budts & Petré 2016; Denis & Tagliamonte 2018).

In the network model of grammar assumed in this study, the patterning of *going forward* can be accounted for as a case of multiple inheritance. Constructions are said to inherit properties from more general constructions that motivate them. For example, the resultative construction in English (e.g. *Lisa sent him wild*) is motivated metaphorically by the caused-motion construction (e.g. *Lisa sent him home*) (Goldberg 1995: 81–9; examples from Trousdale 2013: 502). Constructions have multiple inheritance when they are motivated by several higher-level constructions (Trousdale 2013: 502). In the case of *going forward*, the construction has at least three sources that motivate its properties: the lexical item *go forward*, the *-ing* clause construction and the temporal adverb construction. The lexical item *go forward* gives *going forward* its phonological substance. Additionally, the metonymy from the spatial to the temporal domain is motivated by the phrasal verb. The *-ing* clause construction motivates the overt participial form of *going forward* and its adverbial use. Finally, the temporal adverb construction motivates the external syntax of *going forward*, including its use as a phrasal modifier.

What the network-based account makes clear is that *going forward* has strong motivation from other parts of the grammar. It instantiates the well-known metonymic connection between spatial and temporal motion, which is also present in other, lexically related constructions such as *moving forward* and *as we go forward*. The position of *going forward* in the structure that it modifies represents a convergence point between temporal adverbs and *-ing* clauses, with both favouring final position. These kinds of analogous constructions may favour the emergence and spread of innovative constructions (De Smet 2016; De Smet *et al.* 2018). In addition, temporal adverbs are a well-established category in English grammar that provides a blueprint for the behaviour of new items. A similar case is the Spanish intensifiers formed with the suffix *-mente* (Aaron 2016). In this family of adverbs, the analogical model provided by one of the adverbs, *altamente* 'highly', expedited the development of other, functionally and formally similar adverbs into degree modifiers.

This study has not attempted to test different accounts of constructional innovation (see Dietrich 2024 for a review). At first sight, the findings might be seen to support a reanalysis-based account of innovation since I am arguing for a new form–function pairing, the *going forward* construction in (29), to have emerged rather rapidly. However, in other respects, the account of *going forward* offered here is more in line with gradualist views of grammaticalisation (e.g. De Smet 2012, 2016; Dietrich 2024). The syntactic difference between a converbal, non-futurate use of *going forward* does not require syntactic ambiguity to work but is plausibly explained through distributional overlap. This is also the case with medial and post-nominal phrasal modification uses of *going forward*, for example. Similarly, the semantic difference between non-futurate and futurate *going forward* is based on a strong motivation, for which there is ample independent cognitive and linguistic evidence. Because of this, I would argue that my results are at least compatible with models in which innovations proceed through imperceptible extensions of existing patterns. However, further work is needed to establish this kind of account for *going forward* in a more robust way.

6. Conclusion

This article has described the spread of *going forward* as a future adverb. It has also described its genre distribution and spread from business discourse to other spheres of language use. While the connection to business, finance and administration probably remains, *going*

forward has become a more versatile expression type, and much more common. Whether it has permanently entered the language remains to be seen. On the theoretical level, it was argued that *going forward* may represent a seamless innovation. Thus, constructional innovations do not necessarily need to be formally or functionally extravagant to count as innovative, and to be subject to social evaluation and possible enregisterment by language users.

Compared to some other types of adverbial expressions, temporal adverbs are comparatively understudied, especially when we consider the fact that they are among the most frequent of adverbial expressions. In future studies, it would be useful to compare and contrast *going forward* with other future adverbs, notably *in (the) future, from now on* and especially its minor variant *moving forward*. This kind of contrastive approach would shed light on the interaction between the specific type of future semantics each of these expressions contributes on the one hand and the usage patterns that they have in corpus data on the other. Additionally, and available data permitting, future studies could zoom in on the beginnings of *going forward* in business discourse, something that a general-purpose corpus such as COCA or COHA cannot give access to with sufficient resolution. Such a study could examine whether the emergence of *going forward* was abrupt even in business discourse or whether it proceeded in a more gradualist fashion.

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Appendix: Variability-based neighbour clustering

Variability-based neighbour clustering was conducted using the vnc.individual function provided by Gries & Hilpert (2012). In this function, the measure of similarity is standard deviation, and the amalgamation rule is averaging. The cluster analysis is displayed in a dendrogram. In addition, the algorithm produces a scree plot, which shows the goodness-of-fit for different numbers of clusters and which therefore can show the optimal number of clusters for this particular dataset. The number of clusters is shown on the x-axis, while the fit is on the y-axis; the lower the value, the better the fit. The optimal clustering solution is

the one where the scree plot 'elbows', i.e. where adding new clusters does not improve the amount of fit in a meaningful way. Figure A1 shows the result of the cluster analysis, while figure A2 shows the scree plot. The scree plot 'elbows' at the fourth cluster, which suggests that four is the optimal number of clusters. In the dendrogram, the first partition is made between 1990–2015 and 2016–19. The second partition splits the first cluster into two (1990–2008 and 2009–15) and the third partition places 2019 in its own cluster.

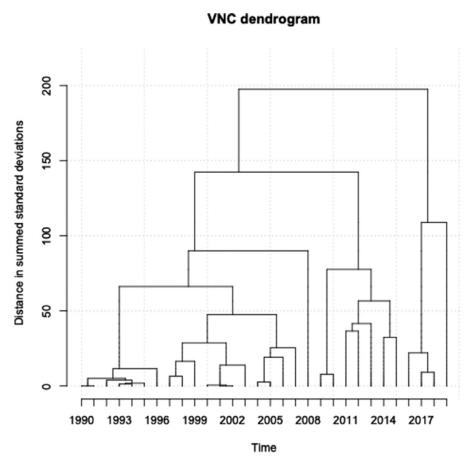


Figure A1. Clusters for variability-based neighbour clustering

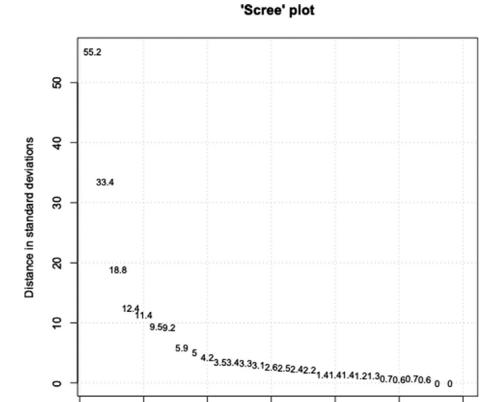


Figure A2. Scree plot for variability-based neighbour clustering

Clusters

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