MODELLING MORPHOSYNTACTIC VARIATION IN WORLD ENGLISHES FROM A REGISTER PERSPECTIVE

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Abstract

This paper addresses Miller’s (2000) and Brown and Miller’s (2017) hypothesis that the adverbs just, (n)ever and yet are becoming markers of perfect meaning in spoken English, and this at the expense of weakening semantically and reducing the use of the have + past participle periphrasis. The hypothesis is tested in eight varieties of Present-Day English from the perspective of Usage Based Theory (Bybee 2006, 2011, 2013) and with a corpus-based, onomasiological methodology. The results confirm the hypothesis only partially; crucially, data reveal that in order to model morphosyntactic variation in a rigorous way we need to adopt a register perspective such as that used by Biber and associates (e.g. Biber and Gray 2016), who demonstrate that language variation and change is mediated by register variation.

Key words: Perfect, register, morphosyntactic variation, onomasiology, World Englishes.

Resumen

Este artículo versa sobre la hipótesis vertida en Miller (2000) y Brown y Miller (2017) sobre los adverbios just, (n)ever y yet, según la cual estos adverbios se están convirtiendo paulatinamente en marcadores de perfecto a expensas del
debilitamiento semántico de la perífrasis de perfecto have + participio de pasado. Este trabajo comprueba esta hipótesis en ocho variedades de inglés contemporáneo desde el enfoque de la UBT (Usage Based Theory, cf. Bybee 2006, 2011, 2013), con una metodología basada en corpus y un enfoque onomasiológico. Los resultados confirman la antedicha hipótesis solamente de modo parcial pero, crucialmente, los datos revelan que para describir de modo riguroso la variación morfosintáctica se necesita adoptar una perspectiva de registro como hacen Biber y colegas (por ejemplo, Biber y Gray 2016), quienes demuestran que la variación el cambio lingüístico está mediado y depende de los patrones de variación observados en los distintos registros.

**Palabras clave:** Perfecto, registro, variación morfosintáctica, onomasiología, Nuevos Ingleses.

### 1. Introduction

This study will argue that in order to model morphosyntactic variation in World Englishes (henceforth WEs), a register perspective needs to be adopted, that is, a perspective based on the idea that “linguistic change is mediated by register differences at a highly specific level” (Biber and Gray 2013: 104). In numerous works, Biber and associates have shown that there are systematic differences in the patterns of linguistic variation between registers and sub-registers, and hence any attempt at a rigorous synchronic or diachronic description of language variation needs to take such differences into account (Biber 2012; Biber and Gray 2013, 2016). In this paper I adopt such a register perspective as a means of gaining further insights into morphosyntactic variation in WEs. As will become apparent in the organization of the paper, which describes the research in the order in which it was actually developed, the register approach was data-driven: an initial exploration of the topic – that of the entrenchment of particular grammatical markers (see below) – led to the discovery that register was the most important factor in modeling such entrenchment, and hence to the conclusion that no study here would be satisfactory without the adoption of a register perspective.

The specific focus of the present study is the variation observed in the realm of the expression of the present perfect in World Englishes. This has been a topic of considerable interest lately, especially from a semasiological perspective, comparing the use of forms, essentially the present perfect and the preterite (cf. Biewer 2008; Davydova 2011; Engel and Ritz 2000; Hundt and Smith 2009; Van Rooy 2009; Werner 2013, 2014, 2016; Werner and Fuchs 2017; Yao and Collins 2012; Yerastov 2015; most papers in Werner, Seoane and Suárez-Gómez, eds., 2016); but an
A onomasiological perspective has also been taken, looking at all the forms that are used in contexts expressing perfect meaning (Seoane 2016a; Seoane and Suárez-Gómez 2013; Suárez-Gómez and Seoane 2013; Suárez-Gómez 2017). This paper also takes a function-to-form (i.e., onomasiological) orientation, and argues that the variation observed in the expression of perfect meaning in WEs is mediated through register and can only be satisfactorily accounted for from this perspective.

In a very challenging paper, Miller (2000) dismantles the traditional account of the expression of the perfect by claiming that in spoken English the present perfect (have + past participle) conveys very little - and often ambiguous – information, and that its interpretation necessarily comes from the adverbs yet, just and (n)ever. These act as new markers of perfect meaning and are on their way to becoming obligatory in newly entrenched constructions expressing resultative (1), recent past (2) and experiential (3) perfect meaning (2000: 334).

1. I haven’t done it yet
2. I have just seen it
3. I have never heard it before

Miller’s (2000) understanding of this ongoing grammatical change is based largely on intuition, and he calls for a deeper study of “naturally occurring examples” (2000: 339). This interpretation of the perfect is further developed in Brown and Miller (2017: 245-254), where they insist that “[i]nsufficient attention has been given to the role of just in (2b) [The Minister has (just) arrived] and of ever in (2d) [Have you (ever) visited Doubtful Sound?], as demarcating the hot-news (recent past) perfect and the experiential perfect from the other interpretations”. They argue that there are grounds for considering examples such as these as separate constructions and not separate interpretations of the perfect. Like Miller (2000), Brown and Miller (2017: 246) underline the fact that it is in spoken English that this entrenchment of adverbs as perfect markers occurs, at times in combination with the present perfect, but also very often with the simple past (i.e., the preterite form), which would then indicate that perfect meaning is conveyed by the adverbs, and not the verbal form itself. In their own words, “[t]he perfect is the required construction in formal written English for reference to recent past time (possibly in combination with just). Very common in spontaneous spoken British English (standard and non-standard) is the simple past”. They illustrate the latter with the example “As Charlie just pointed out”, it is of great concern (Brown and Miller 2017: 246). One reason why Miller (2000: 337) and Brown and Miller (2017: 247-248) emphasize the relevance of adverbs to express perfect meaning is the existence of examples which are only acceptable if an adverb is added to the PP. This is shown in example (4) below:

4. ?She has blinked vs She has just blinked (Brown and Miller 2017: 248)
Previous research has shown that perfect markers of this type are frequent in British English, whereas their frequency in Asian varieties of English is significantly lower (Seoane and Suárez-Gómez 2013). This could be taken as an indication that the entrenchment of particular adverbs as perfect markers is gradually taking place in L2 or Outer Circle varieties of English (cf. Kachru 1982 for the classification of varieties of English into Inner, Outer and Expanding Circles).

Since the 1980s, a rich body of research has focused on phonological, morphological, syntactic and pragmatic variation between varieties of English as a second language (L2) worldwide. They are often referred to as World Englishes (cf. Schneider 2013: 132-133 for a discussion of terminology here), and the metropolitan varieties, British and American English. Even though many initial studies were essentially impressionistic, most current research is corpus-based, made possible by the creation and availability of various corpora (cf. Seoane 2016b for a list of such corpora). The most commonly used sources of data are the International Corpus of English (ICE, Greenbaum 1996) and the Corpus of Global Web-Based English (GloWbE, Davies 2013). The ICE corpora consist of 1 million-word corpora of different varieties of English such as L1, L2 and ESD (English as a second dialect), and GloWbE contains 1.9 billion words of internet language from various L1, L2 and ESD varieties divided into two categories, blogs and general (webpages other than blogs).

In terms of variation within the corpora, a rigorous comparison between the blogs section and the general section in GloWbE is not possible since blogs are also found in the general section (cf. Loureiro-Porto, forthcoming, for a discussion of the characteristics of and differences between ICE and GloWbE). As for the ICE corpora, these tend to be used as a whole, due to their small size; however, some studies compare data from the spoken and written parts, since the material is itself divided (40% written, 60% spoken). In fact, the contrast of spoken versus written language in ICE has been used as a proxy for diachronic change by considering differences between the two modes as a reflection of diachronic differences (cf. e.g. Collins 2009; van der Auwera et al. 2012; see Seoane, forthcoming, for a critical discussion). Studies analyzing register variation in WEs are themselves not very common, probably because corpora such as ICE, with a very fine grained distinction between registers (see section 4.3), have two main drawbacks: (i) registers are not equally represented, as with private letters, which are included in most ICE components, but which are replaced in ICE Canada by emails; and (ii) most of the categories are represented only to a limited extent, due to the corpus size. Thus, persuasive writing (represented by press editorials) contains 10 texts, amounting to only 20,000 words in total. Despite such drawbacks, ICE remains the best currently available tool for the study of register variation across WEs.
The current paper intends to extend the study to further varieties of English and to analyse the factors that model the distribution of adverbs in these. This entails the adoption of a register-based perspective, through a consideration of differences between registers in the expression of perfect meaning with and without yet, just and (n)ever. The analysis includes ten high frequency verbs in British English and in six African, Caribbean and Asian varieties of English, as represented in the *International Corpus of English* (ICE). Based on the above mentioned work of Biber and associates, I will compare varieties and registers, both written and spoken, in terms of the frequency of yet, just and (n)ever as perfect markers and their interaction with other linguistic features, such as polarity and semantic verb type. The results will be examined in a macro-level context, since the L2 varieties under scrutiny here have emerged in situations of language contact and are set in multilingual contexts. Processes of second language acquisition might also be relevant here, since L2 varieties of English are by definition used by learners of English (see e.g. Schneider 2007: 61). These two conditions have been shown to make language susceptible not only to more limited exposure to exemplar constructions, but also to mechanisms such as the principle of transparency and processes of simplification and increasing isomorphism (Schneider 2013; Szmrecsanyi and Kortmann 2011; Thomason 2001), which might account in part for the entrenchment of the adverbs under consideration here as perfect markers.2

2. Theoretical Framework

The theoretical framework adopted in this study is Usage Based Theory (UBT, see Bybee 2006, 2011, 2013 among others), the fundamental tenet of which is that language use in real social and historical contexts models the mental grammar of speakers through cognitive processes such as the entrenchment3 of exemplar categorization and schema formation (cf. also Fischer 2007: 324). Such language use can be captured by means of corpus-based studies, like the present one, which follows a variationist design to investigate proportional preferences in different varieties and registers (see, e.g., Biber et al. 2016). On the other hand, the progressive entrenchment of grammatical elements in the mental grammar of speakers, depending on the degree of exposure to such elements, is a useful means of conceptualising the degree of integration of these perfect markers. Another advantage of UBT is that it allows for the incorporation of both micro- and macro-level contextual factors (linguistic and extralinguistic), and these are especially relevant in multilingual settings such as those dealt with here (Adger and Trousdale 2007: 268, 273; Geeslin and Long 2014: 139; Trousdale 2010: 128).
3. Methodology

As noted above, this study is corpus-based and utilizes all the ICE corpora representing L2s which are available and complete (e.g. for ICE-Sri Lanka only the written part is available and for this reason it has not been included). This leaves us with the following ICE components. First, the Inner Circle or L1 varieties include: ICE-GB, British English, which is used mainly as a reference or benchmark variety. Second, there are six Outer Circle or L2 varieties, four of these from South-East Asia, ICE-HK, Hong Kong English, ICE-SIN, Singapore English, ICE-IND, Indian English and ICE-PHIL, Philippine English, and two from Africa, ICE-NIG, Nigerian English and ICE-EA, East-African English. Finally, there is one Caribbean variety of English as a Second Dialect (ESD), ICE-JA, Jamaican English. The total number of words is eight million.

The approach to the study of the entrenchment of just, (n)ever and yet as perfect markers is function-to-form. In other words, the data are not selected and retrieved according to their form, but according to their meaning: only contexts expressing verb meaning (independent of the form the verb takes) are selected. For this purpose, we have extracted all occurrences of 10 high-frequency verbs. The selection of these verbs, as opposed to others, follows an initial study on the expression of perfect meaning in WEs, which showed that these are the verbs which appear with such meaning most frequently in the ICE corpus (Seoane and Suárez-Gómez 2013). It is important to note that be, have and do are excluded from the study since they can function as primary auxiliary verbs and therefore their rate of occurrence is extremely high, hence the process of identifying and excluding irrelevant forms would be excessively time consuming. The ten verbs, then, are come, finish, get, give, go, hear, see, say, tell and think. The total number of tokens of these verbs was c.130,000, which were manually filtered out by reading the contexts and identifying perfect meaning. A total of 8,451 tokens were found.

4. Results

4.1. General overview of the data

Table 1 below provides the raw numbers and percentages of tokens expressing perfect meaning for each variety, with a specification of the form of the verb. Normalised frequencies are not given, since all ICE components contain the same number of words (one million each).
Table 1. Form and regional distribution of the verbs expressing perfect meaning

<table>
<thead>
<tr>
<th></th>
<th>BrE</th>
<th>HKE</th>
<th>SinE</th>
<th>IndE</th>
<th>PhilE</th>
<th>NigE</th>
<th>EAE</th>
<th>JamE</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Have + PPple</strong></td>
<td>749</td>
<td>951</td>
<td>669</td>
<td>980</td>
<td>542</td>
<td>702</td>
<td>797</td>
<td>604</td>
<td>5994</td>
</tr>
<tr>
<td></td>
<td>85.4%</td>
<td>70.0%</td>
<td>65.5%</td>
<td>78.0%</td>
<td>65.1%</td>
<td>68.1%</td>
<td>80.0%</td>
<td>56.1%</td>
<td>70.9%</td>
</tr>
<tr>
<td><strong>Preterite</strong></td>
<td>108</td>
<td>334</td>
<td>312</td>
<td>238</td>
<td>261</td>
<td>303</td>
<td>172</td>
<td>298</td>
<td>2026</td>
</tr>
<tr>
<td></td>
<td>12.3%</td>
<td>24.6%</td>
<td>30.5%</td>
<td>18.9%</td>
<td>31.3%</td>
<td>29.4%</td>
<td>17.3%</td>
<td>27.7%</td>
<td>24.0%</td>
</tr>
<tr>
<td><strong>Be + PPple</strong></td>
<td>10</td>
<td>25</td>
<td>18</td>
<td>18</td>
<td>25</td>
<td>12</td>
<td>14</td>
<td>36</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>1.1%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>1.4%</td>
<td>3.0%</td>
<td>1.2%</td>
<td>1.4%</td>
<td>3.3%</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Base form</strong></td>
<td>9</td>
<td>33</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>10</td>
<td>9</td>
<td>70</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
<td>2.4%</td>
<td>1.1%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>1.0%</td>
<td>0.9%</td>
<td>6.5%</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Past Pple</strong></td>
<td>1</td>
<td>12</td>
<td>7</td>
<td>14</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>0.1%</td>
<td>0.9%</td>
<td>0.7%</td>
<td>1.1%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.3%</td>
<td>6.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.1%</td>
<td>0.4%</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>877</td>
<td>1357</td>
<td>1022</td>
<td>1258</td>
<td>833</td>
<td>1031</td>
<td>996</td>
<td>1077</td>
<td>8451</td>
</tr>
</tbody>
</table>

Most notable in Table 1 is the fact that the present perfect periphrasis, *have + past participle* (henceforth PP), is by no means the only way of expressing perfect meaning in L1, L2 and ESD varieties of English. Also reasonably frequent in all varieties is the use of the preterite, illustrated in (5) below, as also noted by Elsness (2009) and Hundt and Smith (2009). Other forms registered in Table 1 are clearly productive in the corpus, such as periphrasis with *be* as an auxiliary (6), the base form (7), the past participle alone, this exclusive to the verbs *see* (8a) and *go* (8b), and finally some other forms, which are considered either as performance errors or as transcription mistakes, given their marginal character (9a) to (9c).

(5) In what particular sense unintelligible-students Miss you **said** degree modif modifiers are used as adjectives in that ways (ICE-JA S1B-015)

(6) *I’m* just **come** here on a holiday (ICE-IND S1A-001)

(7) You **see** gun like this one before Yes sir (ICE-JA S1B-065)

(8) a. You never <-_>You never<-/> **seen** this movie <-_>this movie<-/> called The Disclosure (ICE-EA conversation 1k)

b. Since then they’ve moved on to eighty-six for three Brian Lara **gone** without scoring uh (ICE-JA S2A-006)
(9)  a. Reports from Phnom Phen has say the agreement is reached at the meeting of the next military working (ICE-SIN S2B-008)

b. I am busy now. Now I am finish my half yearly Exam (ICE-HK W1B-010)

c. Uh many people Americans on the North Coast that ain’t ever seen no white Jamaican before (ICE-JA S2A-040)

Figure 1 below compares the proportion of the different forms in written and spoken British English, as represented in ICE-GB. These proportions do take into account normalized frequencies, since the number of words from the written and spoken sections is different (400,000 and 600,000 words respectively).

The results set out in Figure 1 contradict the findings in Elsness (2009), Hundt and Smith (2009) and Brown and Miller (2017), in which the preterite is reported to be more frequent in spoken than written English. The same goes for the frequency of the PP, which, according to these previous studies, might be expected to be higher in written English.

Turning to the question of the relevance of adverbials in the expression of perfect meaning, Table 2 below gives the raw numbers and percentages for the use of adverbial support, that is, the distribution of verbal forms with and without the presence of an adverbial of time, by geographical variety. Adverbials of time here do not refer to just, (n)ever and yet exclusively, but include prepositional phrases and other adverbials that indicate the time frame in which the action takes place, as will be illustrated in section 4.2.
So, an initial view of adverbial support in the expression of perfect meaning shows that verb forms take adverbial support in more than 20 per cent of cases, and that this tendency is more pronounced in the L1 variety, British English, than in others, with the sole exception of Singapore English. In general, therefore, the combination of a verbal form plus an adverb is more frequent in native than non-native varieties. From a UBT perspective these results make sense, since the degree of entrenchment of adverbs as perfect markers in mental grammars depends on the degree of exposure to exemplars of such a use, and this is naturally weaker in L2s, which will tend to have more limited exposure to these forms.

It is important to interpret the results here against a backdrop of contact linguistics and second-language acquisition, since we are examining varieties of English which emerge from language-contact situations and which hence can be subject to various cognitive processes derived from contexts of multilingualism and language contact. Moreover, since these varieties are L2s, we can also find parallels with linguistic phenomena typical of second-language acquisition settings. One of these effects is a generalized tendency towards increased isomorphism, “an explicit one-to-one matching of form and underlying meaning” (Schneider 2013: 145), which is common not only in multilingual settings but also as a process derived from second-language acquisition. The L2s currently under discussion coincide in these two characteristics: they are learned as second languages and they develop in language-contact contexts. In the constructions that interest us here, increased isomorphism would entail the use of PP forms together with adverbial forms in order to increase the explicitness of the time frame in which the action occurs. This tendency, in the case of English, in general leads to results similar to those observed as a consequence of yet another tendency observed in L2 varieties, that of the shift towards analyticity (Szmrecsanyi and Kortmann 2011). In terms of the present study, this would imply a simplification of the verbal form (in line with the simplification of the target language typical of language contact, cf. Thomason...
2001: 148) in favour of a greater presence of adverbial markers. As can be seen in Table 2, none of these tendencies is seen at work in the corpus as a whole. Curiously enough, the L2 that shows the highest number of adverbial markers, Singapore English, is the most advanced variety of the L2s under consideration. According to Schneider’s (2003, 2007) Dynamic Model, Singapore English had already reached phase 4, ‘nativization,’ by the early 1970s (2007: 155-161), which means that for almost 50 years it has been developing “locally distinctive linguistic forms and structures” (Schneider 2007: 71); one of these could very well be the frequent use of adverbial markers of perfect meaning, as is the case in the L1, British English, in the corpus. It is interesting to note that the L2 varieties with the highest incidence of adverbial markers, namely HKE and SinE, are precisely those which have typologically isolating or agglutinative languages as the substratum. In other words, the verbs in their main substrate languages, Cantonese in the case of HKE, and Hokkien, Malay and Mandarin in the case of SinE, show not inflection to express tense and aspect but grammatical markers.

Whereas Table 2 shows a generalized absence of increased isomorphism in L2s, an examination of the proportion of the different verbal forms with adverbial support in the L2s here provides a more fine-grained account. Figure 2 below, which also divides the data into spoken and written modes, shows that the more analytical forms, that is, the two periphrases (with have and with be), require less adverbial support. This general finding is contra Miller (2000), where he asserts that in spoken English the PP is becoming semantically empty and needs adverbial support to express perfect meaning. According to the data in ICE (see Figure 2), the PP is the most self-sufficient of the forms to express perfect meaning. The other forms (preterite, base form and past participle) show a relatively higher adverbial presence, which would lend support to another of Miller’s suggestions, namely that yet, just, (n)ever might be on their way to becoming perfect markers in spoken English. They also illustrate the tendency towards isomorphism (presence of adverbial to make the time reference explicit) and analyticity (morphological simplification in the verbal form – base forms, auxiliary deletion – and the addition of independent markers) mentioned above, as pointed out by Thomason (2001) with regard to language-contact situations.

If we compare the results for spoken versus written English, we see that with the exception of the PP, where hardly any differences are observed, there is a fairly strong contrast between the two modes. In the case of the preterite and the base form, both verbal forms clearly favour (or demand) adverbial support in the spoken language. In contrast, when perfect meaning is expressed via a be-periphrasis or a past participle, adverbial support is hardly ever present in the spoken mode. These general results partly reinforce Miller’s hypothesis, which deals with spoken English exclusively.
4.2. Polarity, lexical factors and type of perfect meaning

In section 1 we mentioned that some clauses containing a PP form can only be acceptable if an adverbial is present (cf. example (4) above), as shown by Miller (2000: 337) and Miller and Brown (2017: 427-428). Another context that facilitates the acceptability of verbs in PP form is negative polarity contexts, as in (10), where the two factors, negative polarity and presence of an adverb, converge:

(10) ? I have wanted to go vs I have never wanted to go

A study of the correlation between presence of adverb and negative polarity yields the results set out in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>With adverbial</th>
<th>Without adverbial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive</strong></td>
<td>1654 (22.3%)</td>
<td>5757 (77.7%)</td>
<td>7411</td>
</tr>
<tr>
<td><strong>Negative</strong></td>
<td>454 (43.6%)</td>
<td>586 (56.3%)</td>
<td>1040</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2108</td>
<td>6343</td>
<td>8451</td>
</tr>
</tbody>
</table>

Table 3. Distribution of adverbials according to context polarity

Table 3 shows that negative contexts privilege adverbial support, since 43.6% of them have an adverbial, as can be seen in examples (11) and (12). In positive
polarity contexts, the percentage of adverbial support is much lower, at only 22.3%. These data might be seen as corroborating Brown and Miller’s (2017: 247-248) intuition that negative polarity contexts and the presence of adverbs favour the use of present perfect meaning. However, the fact that almost half of the negative polarity contexts (42.5%) contain never (cf. example 11) undermines the force of these results.

(11) Now so far you haven’t really come up with any uh argument any strong argument you have mentioned (ICE-SIN S1B-001)

(12) She don’t come yet? (ICE-JA W2F-015)

In the study of verbal periphrases, the interface between lexical and syntactic factors cannot be ignored, given that lexical semantics and lexical collocations can shape syntactic variation. In this case, particular verbs could trigger or facilitate the use of adverbial support. Table 4 below shows the distribution of adverbs per lexical verb.

<table>
<thead>
<tr>
<th></th>
<th>With adverbial</th>
<th>Without adverbial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come</td>
<td>267 (23.6%)</td>
<td>863 (76.4%)</td>
<td>1130</td>
</tr>
<tr>
<td>Finish</td>
<td>105 (36.5%)</td>
<td>183 (63.5%)</td>
<td>288</td>
</tr>
<tr>
<td>Get</td>
<td>180 (38.0%)</td>
<td>294 (62.0%)</td>
<td>474</td>
</tr>
<tr>
<td>Give</td>
<td>125 (14.4%)</td>
<td>742 (85.6%)</td>
<td>867</td>
</tr>
<tr>
<td>Go</td>
<td>201 (18.9%)</td>
<td>860 (81.1%)</td>
<td>1061</td>
</tr>
<tr>
<td>Hear</td>
<td>191 (21.7%)</td>
<td>691 (78.3%)</td>
<td>882</td>
</tr>
<tr>
<td>Say</td>
<td>412 (28.6%)</td>
<td>1027 (71.4%)</td>
<td>1439</td>
</tr>
<tr>
<td>See</td>
<td>405 (28.3%)</td>
<td>1027 (71.7%)</td>
<td>1432</td>
</tr>
<tr>
<td>Tell</td>
<td>148 (21.4%)</td>
<td>542 (78.6%)</td>
<td>690</td>
</tr>
<tr>
<td>Think</td>
<td>74 (39.4%)</td>
<td>114 (60.6%)</td>
<td>188</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2108 (24.9%)</td>
<td>6343 (75.1%)</td>
<td>8451</td>
</tr>
</tbody>
</table>

Table 4. Presence / absence of adverbial support by lexical verb

The verbs with the highest percentage of adverbial support are think (39.4%), get (38.0%) and finish (36.5%). The semantic disparity between them, in that think is
a mental verb and both get and finish are action verbs (Biber et al 1999: 360-364), seems to show that adverbial use is not related to verbal semantics in this case. Rather, as UBT theory predicts, each verb has its own unique ‘footprint’ of syntactic behavior, that is, its own unique set of collocational patterns, which are entrenched and stored as such in our mental grammar (Fox 2007: 301). Frequent collocations for think, get and finish in the corpus are illustrated below in examples (13) to (18). These three verbs also happen to be the verbs with the lowest frequency in the corpus (as noted by one of the reviewers, for which I am grateful). The potential connection between their low frequency and their higher proportion of adverbial support is indeed a question for further study.

(13) Will I be successful. But I have always thought that if I <,> went to talk to a fortune teller and ask him about the (ICE-HK S1A-057)
(14) what are the issues which they have also not attended to they have never thought of so we have invited resource people from a cross section of you know (ICE-EA br-discK)
(15) I think it’s not that India’s got in danger today I don’t see so (ICE-IND S1B-054)
(16) us to meet at eight thirty before eight thirty we have already gotten the copies of our songs so probably we’ve gone through (ICE-NIG con_05)
(17) It’s 12 noon now and I’ve just finished breakfast in bed (ICE-SIN W1B-009)
(18) The the frame the the structure and the external work tasks have been finished already and uh it looks very good (ICE-HK S1B-074)

Thus far I have referred to ‘perfect meaning’ in general. However, four distinct types of perfect meaning have been widely recognized in the literature (cf. Comrie 1976; Dahl 1999: 290-291; Dahl and Hedin 2000: 385-388; Huddleston and Pullum 2002: 143-145; Miller 2000: 327-331: Brown and Miller 2017: 253). These are resultative meaning, as in example (19), recent-past meaning (20), experiential meaning (21) and persistent situation (22).

(19) If she can’t settle the thing you have come to the state you might just go back to your place to your mother’s place (ICE-EA br-discK) - Spoken private dialogue
(20) The news in detail The Home Minister Mufti Mohammed Sayeed has said the inter-state problems should be resolved through mutual discussion (ICE-IND S2B-002)
(21) and all the kinds of influences that have gone I think into making me what I am (ICE-JA S2A-036)
(22) You haven’t gone out for a long time (ICE-SIN S1A-099)
The semantic classification is not always obvious, especially as far as the distinction between resultative and experiential meaning is concerned. According to Van Rooy (2009: 320), such a distinction is a matter of degree, and as a result of this, some scholars have changed or added new terminology to the distinction. For example, Brown and Miller (2017: 253) equate persistent situation (as in 22 above, or as in the prototypical example of perfect meaning with *always*, cf. *She has always worked very hard*) with the meaning "extended now", that is, a situation that persists in the present. In our classification, as well as in the classic studies of Comrie (1976) and Dahl (1999: 290-291), this ‘extended now’ meaning is categorized as resultative perfect meaning, illustrated in (19) above. Table 5 below sets out the number and percentage of examples found for each semantic type.

<table>
<thead>
<tr>
<th></th>
<th>ICE-GB</th>
<th>L2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resultative</td>
<td>548 (62.5%)</td>
<td>4488 (59.3%)</td>
<td>5036 (59.6%)</td>
</tr>
<tr>
<td>Recent past</td>
<td>169 (19.3%)</td>
<td>1675 (22.1%)</td>
<td>1844 (21.8%)</td>
</tr>
<tr>
<td>Experiential</td>
<td>146 (16.6%)</td>
<td>1305 (17.2%)</td>
<td>1451 (17.2%)</td>
</tr>
<tr>
<td>Persistent situation</td>
<td>14 (1.6%)</td>
<td>106 (1.4%)</td>
<td>120 (1.4%)</td>
</tr>
</tbody>
</table>

Table 5. Subtypes of perfect meaning in ICE-GB and L2 varieties.

Given the relatively low number of occurrences expressing persistent situation, with percentages barely higher than 1%, I will focus exclusively on the other meanings. Table 5 shows that resultative meaning is by far the most frequent meaning of the perfect, with values at around 60%, making it the prototypical meaning of the perfect. In order to determine the association between type of perfect meaning and adverbial support, we cross-tabulated the two factors, as shown in Figure 3 below. As mentioned in section 4.1, the analysis is not restricted to *just*, *(n)ever* and *yet*, but includes all adverbial expressions which specify the time frame of the action. Briefly, these include (i) for expression of resultative meaning, *already* (171 occurrences), *yet* (93), *now* (44), *since* + point in time (29) and *today* (29), among others; note that the predominance of *yet* for the expression of resultative meaning predicted by Brown and Miller (2017: 245-248) is not confirmed in the ICE corpus, since *already* is more frequent with this meaning; (ii) for the expression of recent past meaning, *just* clearly takes the lead with 289 examples, followed by *now* (166) *today* (127), *this* + point in time (58), *recently* (39) and *in* + period of time (15), among others; finally (iii) for the expression of experiential meaning there is a clear predominance of *(n)ever*, with 377 occurrences, although other adverbs are registered, among them *for* + period of time (18 examples), *since* (17), and *so far* (7).
From Figure 3 it becomes apparent that adverbial support is very much dependent on meaning, since the prototypical resultative meaning is predominantly expressed independently of adverbial support, whereas the expression of recent past strongly depends on the presence of adverbs, and, the same is true of experiential meaning. In other words, the entrenchment of perfect markers would be taking place in the expression of recent-past perfect meaning and, to some extent, in the expression of experiential meaning, but would not be confirmed for the predominant meaning of the perfect, that is, the resultative one.

In sum, while lexical factors and polarity do not have a bearing on the use of adverbial support, semantic factors do have a strong and crucial influence on the use of adverbials and their entrenchment as perfect markers, as will be further illustrated in section 4.3.

4.3. Register variation

So far I have presented data regarding the corpus as a whole, or have focused on regional and mode differences. I have therefore ignored register dependent variability. In this section I adopt a register perspective on language variation, a factor for which register is a strong predictor of language change, and the failure to include register in the description of language variation can only lead to a distorted picture of the variation being described (see Biber and Gray 2013). One reason for the claim that register is an important factor in the present study is the strong effect that semantic factors have on the distribution of adverbial support (cf. section 4.2). Different registers make use of the perfect and its sub-meanings in different ways and to a different extent, depending on their content and communicative purpose, and this will therefore have an effect on adverb use.7
As a first approximation to the relationship between adverbs and registers, I have analysed the distribution of adverbs per register, as Figure 4 below shows:

Figure 4 sets out all the text categories in ICE. Spoken registers are on the left in capital letters and written registers on the right in lower case. Since not all text-types are equally represented, all data provided for registers are based on normalized frequencies. The results clearly confirm that adverb use is dependent on register. Whereas Table 2 above shows that in the corpus as a whole 24.9% of the examples expressing perfect meaning take adverbial support, Figure 4 shows how this proportion can oscillate between 9.7%, the level for printed popular writing, and 30.8%, for non-printed letters, this despite the fact that both are written registers and their audience is not markedly dissimilar. More surprising is the contrast between academic and popular writing, since both registers have exactly the same corpus: 10 texts each from the Humanities, Social Sciences, Natural Sciences, and Technology; only the readership changes, from a more to a less specialized one. However, the difference in the use of adverbial support is fairly dramatic, with values around 20.6% and 9.7% for academic and popular writing respectively. From Figure 4 we can confirm that the results derived from the corpus as a whole are register mediated results, and thus they cannot be taken at face value, lest that register should act as a confounding factor.
Whereas Figure 4 seems to establish that adverbial support is register-dependent, we still need to ask why registers exhibit such different rates of adverbial use. A broad interpretation of register, such as that of Neumann (2013: 16), who defines registers as “sub-systems of the language system or, when viewed from below, as types of instantiated texts reflecting a similar situation”, proposes that the discourse conventions of each register depend on their topic, social function, intended audience and communicative purpose. This is what Bybee and Hopper call “the pressure of discourse” (2001: 3), which shapes the structure of grammar as it occurs. The distribution of adverbs presented in Figure 4 clearly reflects this interplay of factors, so that even if two registers have relatively similar topics and communicative purposes (e.g. academic writing and popular writing), they are still going to differ in their use of linguistic devices for other reasons pertaining to register-dependent factors, such as the readership and the social function of the texts. Szmrecsanyi and Hinrichs (2008: 307) reach similar conclusions in their multivariate analysis of genitive variation, which includes register: they find that register variation is indeed a strong predictor for variation in this area. In a similar vein, Hundt and Smith (2009: 57) study the distribution of present perfect forms in British and American English and find that whereas there is a significant decrease of PPs in British newspapers and American general prose, there is an increase in fiction, which serves to illustrate that register differences override geographical ones. As a final example, Mair (2015: 214) argues that in his study of modals he was also confronted with “considerable genre-dependent variability as a confounding factor”.

Once we have uncovered the close relationship (i) between adverbial support and register (see Figure 4) and (ii) between adverbial support and type of perfect meaning (see Figure 3), we clearly need to see whether the variability observed between registers depends on the type of perfect meaning that the registers favour. For this purpose I examined the distribution of perfect meaning per register (Figure 5). As expected (see Table 5 above), resultative meaning is the most frequent in all registers, but the relative proportions of this and the other two meanings differ greatly in the different registers. To give just one example, we can compare the high frequency of instances of recent past in two spoken genres, that of spoken scripted monologue (43.7%) and spoken private dialogue (9.7%). The correlation between register, meaning and the entrenchment of adverbs is clearer if we consider some specific text-types: printed popular writing, non-printed letters and printed academic writing (Figures 6 to 8).

To take printed popular writing first, the register with the lowest adverbial support: as can be seen in Figure 4, it shows a correlation between high values for resultative meaning, which appeared predominantly without an adverbial (see Figure 3), and
low frequency of adverbial use. Since it is experiential meaning and, above all, recent past meaning which require adverbial support, the low frequency of the latter results in low rates of adverbial support. Let us now turn to non-printed letters, the register with the highest level of adverbial presence (see Figure 7):

The high rate of adverbial presence for non-printed letters (the highest of all registers) is clearly correlated in Figure 7 with the low rates of resultative meaning associated with this register (55.8% compared to 90.3% in printed popular writing, cf. Figure 6) and also with higher proportions of experiential and recent past meanings, with which adverbs frequently appear (cf. Figure 3). Finally, the data on academic writing, a register with topics and purposes similar to popular writing (see Figure 6), are set out in Figure 8.

Here the use of adverbs is intermediate (see Figure 4), as is the rate of resultative meaning (74.8%, that is, between popular writing, 90.3%, and non-printed letters, 55.8%). The values for experiential and recent past meanings, which tend to have an adverbial, are also intermediate (higher than in popular writing but lower than in non-printed letters).
Figure 6. Types of perfect meaning and adverb use rate in printed popular writing

Figure 7. Types of perfect meaning and adverb use rate in non-printed letters

Figure 8. Types of perfect meaning and adverb use rate in printed academic writing
Discussion and Conclusions

This paper set out to test Miller’s (2000) and Brown and Miller’s (2017) hypothesis that just, (n)ever and yet are undergoing a process of becoming perfect markers in spoken English, which would make the PP redundant and hence would see its meaning weakened. This process was understood in terms of UBT, in such a way that the process would involve the progressive entrenchment of these adverbs as markers of perfect meaning in the mental grammar of speakers. The study did not limit itself to spoken L1 language but included comparable data of spoken and written language in L1, L2 and ESD varieties. The inclusion of these varieties made it possible to check whether this ongoing process of entrenchment had filtered through to other Present-Day varieties of English, and, if so, whether the process was more or less advanced than in the L1. The results showed that rates of adverb use were higher in the L1 variety analysed, which was explained in terms of L2s having more limited exposure to exemplars of this recent use of particular adverbs as perfect markers, thus making their entrenchment weaker.

The data for the study were extracted from the ICE corpus, and the onomasiological (or function-to-form) approach proved essential in demonstrating that the study of the entrenchment of adverbs as perfect markers needs to consider not only the PP and preterite forms, as is usually the case in other studies (cf. Section 1), but all the forms that are used productively to express perfect meaning, such as the be + past participle periphrasis, the base form, and the past participle in isolation (see Table 1). These forms were seen to occur in different ratios in the different varieties, but were not exclusive to L2 and ESD varieties, since British English also exhibits a fair number of preterites, be-periphrases and base forms (cf. Table 1). The entrenchment of adverbs seems to be taking place only in the synthetic forms, that is, the preterite, the base form and the past participle, whereas the analytical forms, have + past participle and the historical perfect periphrasis be + past participle, do not require adverbial support so often. Another aspect of the hypothesis that was examined is whether or not the entrenchment of adverbs takes place predominantly in spoken English, and this was confirmed: Figure 2 shows that in synthetic forms adverbs are much more frequent in the spoken than in the written mode. Miller’s hypothesis, therefore, proves right only with synthetic ways of expressing the perfect. If there is any semantic weakening in the PP periphrasis, it is not due to the presence of adverbs as perfect markers. As for the adverbs themselves, just and (n)ever clearly predominate for the expression of recent past and experiential meaning respectively. However, already surpasses yet in the expression of resultative meaning, contra Miller (2000) and Brown and Miller (2017).
Sections 4.2 and 4.3 looked at potential factors motivating the distribution of adverbal markers in the corpus. The factors explored first were those quoted in the literature on the perfect: correlation between negative polarity and presence of adverbs, which was only partially confirmed (cf. Table 3), and lexical factors, in which we observed the entrenchment of certain collocations for the verbs think, come and get, which are semantically unrelated (cf. Table 4). This was interpreted in terms of UBT, which predict that verbs are stored with their own particular collocations, not necessarily according to their semantics.

A lack of explanatory force in these two factors led me to explore the distribution of adverbs according to the semantic type of perfect expressed. The results revealed that while verbs with resultative meaning, in this case the prototypical meaning of the perfect, are independent of adverbia support, experiential and recent past meanings do show a greater dependence on adverbs (cf. Figure 3). Therefore, Miller’s hypothesis can be refined as applying to the expression of experiential and recent-past meaning, but not to resultative perfect meaning in general.

The onomasiological approach to the data entailed reading thousands of examples. In doing so it was possible to appreciate the differences between registers in terms of their topic, audience and style, these in turn determining the type of perfect meaning they use. For this reason I examined the connection between type of perfect meaning and register (cf. Figure 5), and the results showed that register variation needs to be accounted for in any such study, since all previous results are mediated by register differences. This was illustrated with three registers in particular, as shown in Figures 6 to 8, which exemplified the strong correlation between register, semantic type of perfect and adverbia support. These findings led to the conclusion that the right approach to morphosyntactic variation in Present-Day English must include and measure register variation, in that it is a potentially distorting factor (Mair 2015: 141; Hilpert and Mair 2015: 181). This in turn calls for the compilation of corpora representing comparable types of language use across different varieties and across different periods of time; corpora, that is, which can facilitate the rigorous analysis of variation in WEs.
Notes

1 I am grateful to my colleague Cristina Suárez-Gómez for working with me on the data retrieval and analysis, and to the two anonymous reviewers of this paper for their helpful comments. For funding, I am grateful to the Spanish Ministry of Economy and Competitiveness (grants FFI2014-53930-P and FFI2014-51873-REDT).

2 Also at the macro-level, it would be interesting to explore sociolinguistic variables (gender, age, education), but only with the second generation of ICE corpora, such as ICE Nigeria, can results be easily contextualized here; the importance of metadata and the limitations of most ICE corpora in this respect are discussed in Hundt (2015), Schaub (2016) and Seoane (forthcoming).

3 The term entrenchment is used here as understood in UBT theory (cf. Bybee 2006, 2011, 2013). It refers to the integration of a particular linguistic element (construction, lexical item, phonological feature) in the mental grammar of speakers. Langacker’s (2000) term for this process of consolidation in the grammar is conservation.

4 I appreciate and take note of a reviewer’s comment that it is not recommendable to draw any generalizations on L1 use of the perfect based on ICE-GB only, as Hundt and Vogel (2011) demonstrate. Indeed in their study of the progressive in ENL (L1), ESL (L2) and EFL varieties, Hundt and Vogel find that the L1-L2 distinction is not so clear-cut since L1 varieties such as New Zealand English exhibit patterns that are closer to L2 use (2011: 161-162).

5 As might be expected, the selection of relevant examples was far from easy. Cristina Suárez-Gómez and I agreed on the criteria to follow, filtered the data separately, then compared results. Of particular difficulty was the semantic discrimination of examples (see section 5.2), which entailed the careful reading of generous amounts of context in order to clarify the time frame in which the action is set.

6 Only clean data have been included in the analysis. That is, we carefully excluded all tokens expressing perfect meaning that belong to extra-corpus material (interviewers, speakers of a different variety of English), marked with <X> in the corpus.

7 I refer here to the effect that the distribution of the different types of perfect meaning per geographical variety will have on adverb distribution in these varieties. However, we should also bear in mind that since adverbs express time relations, their distribution (independent of type of adverbial meaning) is also register-dependent. For example, a register such as academic writing, which is concerned with timeless truths (Xiao 2009: 438), could be expected to use fewer adverbials.

8 I am aware that cultural differences between the territories concerned and decisions related to the compilation of the different components of the corpus have made some of the registers heterogeneous, and hence that comparing the same register across different varieties of English using ICE is not always free of problems (cf. Mukherjee and Schilk 2012: 191; Hundt 2015: 384-385; Schaub 2016: 269). However, ICE remains a useful tool for the observation of general trends and patterns of variability across registers.
Works Cited


Suárez-Gómez, Cristina and Elena Seoane. 2013. “‘They have published a new cultural


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