**Charting ongoing change: The emergent complex subordinators *the moment* (*that*) and *for fear* (*that*)**

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**Abstract**

This paper seeks to develop an analytical framework for corpus study of emergent complex subordinators (henceforth CSs). We address two main questions. Firstly, how can complex subordinator uses be identified within the synchronic layering of lexical and grammatical meanings found in data concordances? How can we distinguish expressions that have come to conventionally code CS meanings in corpus data from contexts in which the CS meaning is only an inference or only one of two possible readings (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006))? That is, how can the semantic, syntactic and categorial changes discussed in the grammaticalization literature be operationalized in corpus study? Secondly, how can we measure and compare the degree of grammaticalization of CSs? To shed light on these questions, we focus on two CSs, *the moment* and *for fear*, which derive from preposition + noun + embedded clause, viz. *at/from the moment that* and *for/out of/in/on fear(s) that*. They represent two subtypes that diachronic studies have shown to be potential sources of CSs, noun + relative clause, e.g. *the while that*(Hopper & Traugott [2003](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_traugott_2003)), and noun + complement clause, e.g. *in order that/to* (Łęcki & Nykiel [2016](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#%C5%82%C4%99cki_nykiel_2016)). We show that the data of the two CSs are informative about semantic and syntactic reanalysis and decategorialization in slightly different ways because of the differences in their specific source structures and grammaticalization stages. We propose to measure different degrees of grammaticalization in terms of decategorialized variants and Diewald’s ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)) context types. This allows us to compare the degree of grammaticalization of *the moment* and *for fear* as such, as well as differences for each individual CS across varieties (British English, American English, Australian English). The qualitative and quantitative case studies are based on data extracted from the categories BrNews, USNews and OzNews from [WordbanksOnline](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#wbo).

**1. Introduction**[**[1]**](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn1)

Contemporary corpus-based grammars like Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)) and Quirk et al. ([1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985)) recognize the existence of a class of complex subordinators (henceforth CSs), but, as argued by Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)), there is no consensus on membership within that class. Both Quirk et al. ([1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985)) and Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)), for instance, list *in order that*, *as soon as* and *as long as* as CSs, as shown in Table 1. Table 1 also illustrates the considerable lack of overlap between the expressions listed as CSs in these two grammars. In this article we will focus on two (sets of) expressions that are not generally recognized as CSs, viz. *the moment (that)* and *for fear (that)*. Only Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)) consider *the moment* to be a CS. *For fear* is not included in the lists of CSs by either Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)) or Quirk et al. ([1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985)). However, it is considered a CS in the *Collins COBUILD English Language Dictionary* ([1987](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sinclair_1987)) and the *Oxford English Dictionary*(henceforth OED) ([1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991)), with both ascribing it the meanings of negative purpose *lest* and conditional *in case*.

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|  | **Quirk et al. only** | **Common** | **Biber et al. only** |
| Always formed with final *that* | *insofar that, in the event that, save that* | *but that, in that, in order that, such that* |  |
| Formed with optional final *that* | *assuming, considering, excepting, except, for all* | *given, granted/-ing, provided/-ing, seeing, supposing, now, so* | *on condition, the moment* |
| Always formed  with final *as* | *forasmuch as, inasmuch as, insofar as, insomuch as* | *according as, as far as, as long as, as soon as* |  |
| Others | *as if, as though, in case* |  | *even if, even though, no matter (+ wh-*word*)* |

Table 1. Expressions listed as CS by Quirk et al. ([1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985)) and Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)).

CSs are the result of (ongoing) processes of grammaticalization of erstwhile lexical expressions. Generally, a mix of recognition criteria to do with semantic, syntactic and categorial change has been put forward but they have proved hard to apply to actual data. This paper wants to contribute to the development of a general analytical framework that allows to identify expressions that have come to conventionally code CS (Traugott & König [1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#traugott_k%C3%B6nig_1991), Mosegaard-Hansen [2008](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#mosegaard-hansen_2008)) meanings in corpus data, distinguishing them from contexts in which the CS meaning is only an inference or only one of two possible readings (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)) as well as to compare different degrees of grammaticalization.

We have selected the two emergent CSs *the moment* and *for fear* as case studies because of their shared as well as their divergent features, both of which are very relevant to this neglected area in grammaticalization studies.

On the one hand, their source and target structures share crucial features. They both derive from source constructions that are comprised of preposition + NP + finite clause. Moreover, these source structures had to undergo comparable syntactic reanalyses to be transformed into CSs. [[2]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn2) The clause dependent on the noun in the NP (*moment*, *fear*) had to be ‘upranked’ (cf. Halliday [1994](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#halliday_1994): 188) to a subordinated clause linked to its matrix by a complex subordinator incorporating that noun (Brems & Davidse [2010](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brems_davidse_2010), Smith [2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014), Nykiel [2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#nykiel_2014)). In the four following parsed examples, (1) and (3) illustrate the source structures, while (2) and (4) show the target structures of *the moment* and *for fear* respectively. In (1) we find a prepositional phrase with lexical noun *moment*, which functions as a temporal sentence adjunct (Quirk et al. [1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985): 503), describing the precise period of time within which Jeremy glanced up. By contrast, (2) illustrates CS *the moment* meaning ‘as soon as’, which links the fronted adverbial clause to the matrix. As the matrix describes a future action, it is clear that *the moment*does not indicate a specific point in time, but a relation of anteriority. Example (3) contains a prepositional phrase with lexical noun *fear*, which functions as an adjunct describing the reason of the emotional reaction described in the sentence, as shown by the fact that it answers the probe ‘why does Kylie shudder when the phone rings?’. By contrast, (4) contains complex subordinator *for fear* meaning ‘lest’: it links the main clause, which describes the unrelenting competition to be innovative at Silicon Valley, to what it intends to prevent, viz. being beaten to it.

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| --- | --- |
| (1) | She leaned towards Larry and whispered she wanted to go but it was too late. In **the brief** **moment**when she was close enough to Larry to look intimate, Jeremy had glanced up and caught them. (WBO\_UKBooks) [inprep [thepremod briefpremod momenthead [when she was close enough to Larry to look intimate]postmod]prepositional complement]adjunct Jeremy had glanced up … . |

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| (2) | **The moment** Jordan is rid of Bruce, he will swoop to take Steve McMahon from Blackpool. (WBO\_UKNewspaper) [[The moment]CS Jordan is rid of Bruce]subordinated clause , [he will swoop …]main clause |

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| (3) | Where are you mum, we love you. KYLIE McDowall shudders when the phone rings **for** **fear** it could be bad news about her missing mother. (WBO\_OzNews) Kylie McDowall shudders … [forprep [fearhead [it could be bad news about her missing mother]complement]prepositional complement]adjunct |

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| (4) | In Silicon Valley, long work hours are a badge of honor. The warp speed of innovation keeps many at full throttle **for** **fear** someone else will beat them to the next thing (WBO\_USNews) [The warp speed of innovation keeps many at full throttle]main clause [[for fear]CS someone else will beat them to the next thing]subordinated clause |

At the same time, there are also differences between the source and target structures. CS *the moment* derives from prepositional phrases such as *(at/in/from)* *the moment (that)*, whose NP contains a relative clause. The grammaticalization process it is currently engaged in is, as noted in Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014): 123) similar to that of the subordinator *while*, which goes back to Old English *þá hwíle þe*(Hopper & Traugott [2003](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_traugott_2003): 184), translatable as ‘at the time that’. CS *for fear*, on the other hand, originates in a source construction with a preposition followed by an NP with a complement clause (*for/out of/in/on fear(s)*), which makes it similar to a CS like *in order that* (Nykiel [2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#nykiel_2014) and Łęcki & Nykiel [2016](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#%C5%82%C4%99cki_nykiel_2016)). These differences seem to motivate some divergences in decategorialization processes. Decategorialization refers to the loss of morphosyntactic properties related to the discourse function of the source construction which are no longer necessary for the target construction (Hopper [1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_1991): 30–31). With the emergent CSs considered here, the decategorialization of the NPs is motivated by their semantic reanalysis from identifying a specific moment in time or a specific fear to a relational meaning coded by the subordinator, with *the moment*coming to mean ‘as soon as’ or ‘when’, and *for fear*expressing ‘lest’ or ‘in case’. CS *the moment*, like *while*, drops the preposition in its most advanced stage of grammaticalization, but keeps the article, while *for fear*, like *on condition* and *in order*, keeps the preposition but drops the article. However, they share the tendency to drop *that*.

The overarching shared patterns, coupled to some differences, provide an interesting window onto this relatively neglected area of grammaticalization. With these two case studies we want to contribute to a better understanding of semantic and formal features that mark the ongoing grammaticalization of CSs, i.e. features associated with bridging contexts, which semantically and syntactically allow both the lexical and grammatical reading, and isolating contexts, which have the grammatical meaning only (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)). Quantification of bridging contexts and unambiguously grammatical contexts will allow us to assess and compare degrees of grammaticalization. We will compare the differing degrees of grammaticalization of the two CSs in English as a whole, as well as the – slighter – varying degree across the main varieties of English: British, American and Australian. The latter question has not yet received much attention hitherto, even though a number of studies have reported higher degrees of grammaticalization of, e.g. *kind of* in British English and *sort of* in American English (Brems [2011](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brems_2011): 273), *heaps of* in British and Australian English and *a bunch of* in American English (Brems [2011](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brems_2011): 145 and 180), and *loads of* in British English (Smith [2009](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2009): 172).

In view of these aims, each case study, *the moment* in Section [2](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect2) and *for fear* in Section [3](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect3), will have the same structure, with the same topics being addressed in the following order: Data, Semantic reanalysis, Syntactic reanalysis, Decategorialization, Context types, Frequency, specialization and comparison across varieties of degree of grammaticalization. In Section [4](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect4) we formulate both theoretical and descriptive generalizations, including a comparison of the degree of grammaticalization between *the moment* and *for fear* at large.

**2. Case studies**

**2.1 *The moment***

In Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)) a range of temporal adverbial expressions were investigated, using a set of ICE corpora as well as the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA). The full list of items was: *(on) the day (that/when), (at) the instant (that/when), (at) the minute (that/when), (at) the moment (that/when)*and*(at) the time (that/when).*Of these, *(at) the moment (that/when)* proved to be the most commonly occurring in its fully elliptical form, *the moment*, without a preceding preposition or following relativizer, and therefore the most readily analysable as a CS rather than an adverbial adjunct introducing a relative clause. A higher incidence of *the moment* was found overall in written than in spoken genres, and it appeared to be more established in US than in British English, although the different time periods covered by the corpora used made direct comparison a little problematic.

This study will therefore focus on *the moment* and its possible variants within WordbanksOnline ([WBO](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#wbo)), comparing the news subcorpora for British, US and Australian newspapers (BrNews (including the subcorpora of tabloid news (Sunnow) and broadsheet (Times), USNews and OzNews) as a coherent set of written texts that cover equivalent periods of time. Each of these corpora are of different size (BrNews containing approximately 95,585,840 words, USNews 64,910,623 and OzNews 29,223,275)  and therefore all frequencies will be normalized, per 1m words, for comparative purposes. [[3]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn3)

The possible variants that were searched for are given in Table 2:

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| **øprep *the* ømod *moment* ørel** | *Despite people flinging themselves at him****the moment****his dog-collar is off, poor Eddie never lets a smile disturb his lips* (WBO, BrNews) |
| ***the*mod *moment*** | *It wants, therefore, to act****the first moment****it becomes clear that inflationary pressure is building.*(WBO, BrNews) |
| **prep *the* ømod *moment* ørel** | *He was that way****from the moment****he got here.*(WBO, USNews) |
| **øprep *the* ømod *moment* rel** | *…taste every mouthful and master the art of stopping eating****the moment that****you are full.*(WBO, Times) |
| **prep *the* ømod *moment* rel** | *Would the fiscal Nubians who guard him really let him loose****at the moment when****his virtue was most vulnerable to improper advances?*(WBO, BrNews) |

Table 2. Corpus searches for variant forms of *the moment*.

The searches captured all instances where *the moment* was preceded by a preposition (or not), followed by a relativizer (or not), or where there was some modification of the noun or noun phrase. Excluded from the final figures were all returns for instances of standalone adverbial phrases such as (*at) the moment* in (5)-(6) and *for the moment*

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| (5) | Jan took two steps and **the next moment** the window caved in*.* (WBO\_OzNews) |

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| (6) | He’s in a meeting **at the moment**, and he’s not making a comment” (WBO\_OzNews) |

and of usages where *the moment* is clearly a noun phrase rather than either a prepositional phrase or a CS, for example:

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| (7) | The moment something happens to me is **the moment when** Muslims and non-Muslims will clash. (WBO\_OzNews) |

**2.2 Semantic reanalysis**

Semantic reanalysis can be narrowly defined in terms of a bleaching or reduction of lexical content (Lehmann [1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#lehmann_1985)), or including a broader set of features such as generalization, metaphor and metonymy (Eckhardt [2002](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#eckhardt_2002)), but is widely considered an important aspect of the grammaticalization process. For *the moment* to grammaticalize as a CS, some semantic reanalysis of the nominal element would be expected to occur from identifying a specific instant in time to having a relational meaning. Another use of *moment*, beyond the purely temporal, is as a mass noun indicating importance or significance, as in the earliest example from the [*OED*](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991): “He said the Kyngs Highnes lettres if they had comme in season shulde haue been of no smale momente” (1522). Any sense of the importance – or momentousness – of an event would be lost in a grammaticalized CS usage.

The *OED* also supplies an entry that includes the relational subordinator meaning of *moment*, in which it defines *the moment* as “at the moment (*when* or *that*); as soon as”. This relational meaning is demonstrated in the earliest example, from an 18th century translation of Pliny the Younger’s letters: “Most things, which are necessary to acompany the doing of a good Action, lose their Advantage, and Grace, **the moment** that Action is over” (1724). Curiously, the most recent example (from 1993) does not demonstrate the kind of semantic reanalysis implied by the definition, focussing as it does on a particular moment in time: “The moment when you move from mapping it all out to making the leap in the dark is hugely exciting”. This mismatch between the definition and the usage in the illustrative example suggests that the *OED*, while recognising the expanding function of *moment*, has not fully come to terms with it.

A sample set of general and learner dictionaries for the varieties in this study were interrogated for evidence of this semantic shift, to parallel the codification of its syntactic reanalysis as a CS in Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)). These dictionaries were selected as being of similar size and type, and having as close a publication date as possible. They are shown in Table 3.

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| **General dictionaries** | **Learner dictionaries** |
| *Macquarie Dictionary*(5th ed.) [2009](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#butler_2009) (MD) | *Collins Cobuild English Dictionary for Advanced Learners*(3rd ed.)  [2001](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sinclair_2001) (CCED) |
| *New Zealand Oxford Dictionary*[2005](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#kennedy_deverson_2005) (NZOD) | *Longman Dictionary of Contemporary English*(5th ed.) [2009](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#mayor_2009) (LDCE) |
| *Oxford Dictionary of English*(3rd ed.) [2010](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#stevenson_2010) (ODE) | *Macquarie Learners Dictionary*[1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#atkinson_1999) (MLD) |
| *New Oxford American Dictionary*[2001](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#abate_jewell_2001) (NOAD) | *Longman Dictionary of American English*(4th ed.) [2008](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#pearson_education_2008) (LDAE) |

Table 3. Dictionaries consulted for evidence of semantic reanalysis of *the moment*.

Of the general dictionaries, only the Australian MD does not cover the potential subordinator use at all. Both ODE and NOAD follow the OED in defining it as “as soon as”, and the illustrative example is the same in both dictionaries: “the heavens opened **the moment** we left the house”. NZOD does not have a relational definition, but presents an example of a potential subordinator use as an illustration of a specific temporal sense: “an exact or particular point of time (*I came the moment you called*)”. As in the OED entry, there is a mismatch between the illustration of usage and the definition, although in this instance it is the usage example that demonstrates a relational meaning rather than the definition.

With the learner dictionaries, again the Australian MLD is the exception. It does not have a relational definition, whereas the corpus-based learner dictionaries (CCED, LDCE and LDAE) all do:

* If you say something happens the moment something else happens, you are emphasizing that it happens immediately after the other thing = *the minute, as soon as*(CCED)
* **the moment (that) sb does sth** as soon as someone does something (LDCE)
* A particular point in time – “I knew it was you the moment (that) I heard your voice” (LDAE)

There is a subtle semantic distinction evident in these entries. In the first two, the temporal relation is one of anteriority (‘immediately after’ in the CCED definition) between the situation in the subordinated clause and that in the matrix. In the LDAE example, the relation is one of simultaneity, where the situations occur at ‘a particular point in time’. The corpus data also contains examples in which *the moment*expresses simultaneity (‘when’) between the two situations, as in (8).

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| (8) | Keep up to date with your team’s news **the moment** it happens.  (WBO\_BrNews, Sunnow ) |

The fact that the relations of simultaneity and anteriority can be expressed by the CS *the moment*offers evidence for the semantic reanalysis of the prepositional phrase. The primary sense of *moment* is ‘a short amount of time’, and this is the meaning found in the prepositional phrase in (1) *In the brief****moment****when she was close enough to Larry to look intimate, Jeremy had glanced up and caught them*. This sense of brevity is also captured in its subordinating role but is transformed into a relation of immediacy:

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| - | ‘immediately simultaneity sets in’, as in (8) |

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| - | ‘immediately after’ (anteriority), as in (2) *The moment Jordan is rid of Bruce, he will swoop to take Steve McMahon from Blackpool.* |

The lexical and the grammaticalized meanings are rather close to each other, which can create a potential ambiguity between the two, as illustrated by the following corpus example:

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| (9) | They [fights] are influenced **the moment** a man either ices-over or relishes **the moment** he is called to the ring. (WBO\_BrNews, Sunnow) |

We are left uncertain as to whether the focus is the momentous nature of the particular event (the summons to the ring), or the response of the boxer as soon as he hears the call. This proximity of meaning also helps to explain the difficulties observed in dictionaries entries in distinguishing between them.

**2.3 Syntactic reanalysis**

There are two main arguments to make for the syntactic reanalysis of *the moment* as a CS, one to do with its form and the other contextual. The formal argument is that the lack of a preceding preposition means that its connection with a matrix clause is unmarked, and the lack of a following relativizer means that there is no overt conjunction to introduce a subordinate phrase. The contextual argument involves its position within a clause. Having an initiating subordinating conjunction is one of the indicators of subordination (Smith [2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)), and where *the moment* can be found at the start of a clause, this is unequivocal proof of its subordinating function.

We will look first at the formal argument, using examples from the WBO corpora. In example (10), the preposition *from* marks the start of a prepositional phrase, which is an adverbial adjunct to ‘doomed’, and the conjunction *that* acts as the head of the following subordinate phrase:

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| (10) | The Finnish markka was probably doomed **from the moment that** the Soviet Union collapsed… (WBO\_BrNews, Times) |

Conversely, in example (11), there is no preposition to provide a connection with the matrix clause, and there is no *that* to head the subordinate clause:

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| (11) | The last shelter disappeared **the moment**the news broke in yesterday’s *San Francisco Chronicle*… (WBO\_USNews) |

In this example, *the moment* is not clause initial, which, combined with the lack of other syntactic markers gives a context where its syntactic affiliation is most equivocal (Denison [2010](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#denison_2010)), and creates an environment for potential syntactic reanalysis.

As noted by Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)), the critical context of change is formed by examples such as (12a), which purely structurally appear to be ambiguous between an adjunct reading, as indicated by the bracketing in (12b), and a subordinate clause reading, as in (12c).

|  |  |
| --- | --- |
| (12) | a. When a suitable victim tries to answer the incoming call, the ringer will stop **the instant** the phone is picked up*.*(W2B-032) b. the ringer will stop [thepremod instanthead [the phone is picked up]postmod]adjunct c. the ringer will stopmain clause [the instantCS the phone is picked up]subordinated clause |

By contrast, uncontroversial CS uses of *the moment* can be identified when it occurs in sentence-initial position, as in (13), and when punctuation suggests a separate tone unit, as in (14), as also pointed out by Peters ([2012](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#peters_2012): 136) for *the way*.

|  |  |
| --- | --- |
| (13) | “And it was really good except one of her students one of my friends got into the Conservatorium and **the moment** that happened she took it all seriously”(ICE-AUS, S1A-019(B):76) |

|  |  |
| --- | --- |
| (14) | Here Paul tells … about how the late Derek Bell … changed his life, **the moment** he fell instantly in love with his wife. (WBO\_BrRegNews) |

The latter two context types instantiate what Verstraete ([2007](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#verstraete_2007): 168ff) calls ‘free’ subordination, where both the subordinated clause and the matrix have an information structure with a focus of their own. This rules out an adjunct reading of the unit introduced by *the moment,*as shown by the impossibility of making it the focal component of a cleft: \**It was the moment that happened that she took it all seriously* \**It was the moment he fell instantly in love with his wife that he changed his life*. In other words, the clause introduced by *the moment* cannot be interpreted as carrying the information focus with the action described in the matrix as presupposed information. Rather, the clauses introduced by *the* *moment* are a scene setter, as in (13), or an afterthought, as in (14), against which the matrix plays off its own information structure, e.g. *she took it all seriously* in (13), where the information focus presumably falls on the last lexical element of the matrix.

The WBO corpus data was used to find examples of instances where *the moment* (and its most common variant, PREP + *the moment*) were unequivocally marked as subordinators by appearing in clause- or sentence-initial position. These results were compared with the semantically equivalent CS, *as soon as*. Searches were carried out on instances where the unit under investigation occurred after a conjunction, or any of the punctuation marks full stop, comma, semi-colon, colon, question or exclamation mark. The raw figures for each subcorpus, as well as an overall percentage, are given in Table 4.

|  |  |  |  |
| --- | --- | --- | --- |
|  | ***as soon as*** | ***the moment*** | **PREP + *the moment*** |
| BrNews | 1106/3996 | 57/225 | 30/206 |
| USNews | 347/1883 | 9/82 | 9/77 |
| OzNews | 200/948 | 11/53 | 8/61 |
| **Overall** | 1653/6827 (24%) | 76/360 (21%) | 47/344 (14%) |

Table 4. Raw numbers of clause initial instances of most frequent forms of *the moment* as potential CS, compared to those for *as soon as*.

The overall percentages for *as soon as* and *the moment* are very similar in clause initial position (21% of total occurrences as opposed to 24%), with PREP + *the* *moment* a long way behind. This favourable comparison with an established CS is strong evidence that *the moment* has advanced quite far towards grammaticalization.

**2.4 Decategorialization**

Hopper ([1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_1991): 30) describes the basic discourse function of nouns as the identification of discourse referents, which require nouns to be “decked out with characteristically noun-like attributes such as articles, case markers, classifiers, and so on”. Table 5, below, gives the normalized frequencies for each variation that affects the categorial status of *moment* as part of a potential CS. The grammaticalization of complex NPs of this type into subordinators has also been correlated with the disappearance of the relativizer as in *(the) while (that)*(Hopper & Traugott [2003](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_traugott_2003): 117).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | ***the moment*** | ***the \* moment*** | **PREP + *the moment*** | ***the moment that/when*** | **PREP + *the moment that/when*** |
| BrNews | 2.35 | 0.01 | 2.16 | 0.14 | 0.75 |
| USNews | 1.26 | 0 | 1.19 | 0 | 0.15 |
| OzNews | 1.81 | 0.07 | 2.09 | 0 | 0.14 |

Table 5. Variant forms of *the moment* in potential CS use (normalized/1m words).

We can see that the two most common forms are clearly *the moment*either with or without a preceding preposition, and with no relativizer. For the British and US categories, it is the form with no preposition or relativizer that is (marginally) the most common, whereas in Australian English, PREP + *the moment* is slightly ahead. The loss of the preceding preposition and following relativizer make the categorial status of *the moment* as a noun phrase within the construction preposition + NP + *that*-clause less clear-cut.

The consistent presence of the definite article before *moment* marks the noun phrase, but the non-appearance of the plural marker in this usage demonstrates a loss of one of the characteristics of the full category, which is a prerequisite for decategorialization (Hopper [1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_1991)). In addition, there are very few examples of premodification either of the NP as a whole or of the N element, which gives further evidence for decategorialization. Over all three corpora there were only 3 instances out of a total of 816 where *moment* was premodified by an adjective, and only one of these could be classified as a subordinator rather than a standalone adverbial:

|  |  |
| --- | --- |
| (15) | It wants, therefore, to act **the first moment** it becomes clear that inflationary pressure is building . (WBO\_BrNews, Times) |

This low incidence of premodification of the noun provides evidence for the fixing of *the moment* as an invariable unit. Such limiting of options is consistent with the noun’s loss of categorial status.

**2.5 Context types**

In accordance with the points made about semantic and syntactic reanalysis and decategorialization, the data can be classified into the three main context types, which, according to Diewald ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006), & Smirnova [2012](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_smirnova_2012)) mark the grammaticalization cycle: lexical, critical and isolating contexts. These context types allow the analyst to chart ongoing processes of grammaticalization and to establish the degree to which the processes have advanced at a particular time in a language. In the stage before grammaticalization starts, the item under consideration is used with its full lexical weight in lexical contexts, as illustrated by (1) above, *In the brief****moment****when she was close enough to Larry to look intimate, Jeremy had glanced up and caught them*. The central step in the grammaticalization cycle is constituted by *critical* contexts (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)), which are structurally and semantically ambiguous between the old and the new meaning, i.e. the prepositional phrase and the complex subordinator, as in (9) above, *They [fights] are influenced****the moment****a man either ices-over or relishes****the moment****he is called to the ring*. Diewald’s notion of ‘critical context’ is very similar to Evans & Wilkins’ ([2000](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#evans_wilkins_2000)) ‘bridging context’, which label evokes the ‘bridging’ from the old to the new meaning more clearly, and which we will therefore use. The final step in the cycle is formed by isolating contexts, in which the new grammatical meaning is consolidated as a separate meaning, illustrated by (2) above, ***The moment****Jordan is rid of Bruce, he will swoop to take Steve McMahon from Blackpool*. These are generally clause initial instances, as above, but some examples of contexts of free subordination (Verstraete [2007](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#verstraete_2007)) in final position (see Section [2.3](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect2.3)) were also found. Isolating contexts, which can receive the new grammaticalized reading only, are often in complementary distribution with contexts featuring the older more lexical meanings.

The corpus data was analysed for instances of lexical, bridging and isolating contexts for *the moment*, and the findings are shown in Table 6.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Lexical contexts** | **Bridging contexts** | **Isolating contexts** |
| BrNews | 0.30 | 3.84 | 1.35 |
| USNews | 0.22 | 2.06 | 0.32 |
| OzNews | 0.34 | 2.98 | 0.79 |

Table 6. Normalized frequencies of lexical, bridging and isolating contexts.

As with previous searches, clear uses of *the moment* as a noun phrase were excluded, as in (7) *The moment something happens to me is the moment when Muslims and non-Muslims will clash*, and the majority of lexical contexts were found where a preposition preceded *moment*, as in:

|  |  |
| --- | --- |
| (16) | We give the dogs treats **from the moment** they walk in until it’s time to leave. (WBO\_USNews) |

Such constructions can be described as “immediate source constructions” for the CS, in the terms used by Petré ([2012](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#petre_2012)), in that the preposition marks the construction as a temporal adverbial phrase rather than a noun phrase.

Table 6 shows the bridging context to be the highest frequency across all varieties, as would be expected for an emerging construction. In turn, the isolating context is also consistently more frequent than the lexical one, indicating that the grammaticalization process is well advanced. Differences between the varieties will be discussed further in Section 2.6.

**2.6 Frequency and degree of grammaticalization across varieties**

This section broaches the question of differing degrees of grammaticalization in the three main varieties of English covered by the data. This question can be answered with reference to two different measurements discussed in the previous sections: degree of decategorialization ([Table 5](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#table5)) and normalized frequencies of lexical, bridging and isolated contexts ([Table 6](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#table6)).

With regard to decategorialization, the fully elliptical form, *the moment*, is the highest in frequency in the British and US corpora, as shown in Table 5. The higher incidence in British than in US English according to this data reverses the findings of Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)) overall for BNC and COCA, although it is notable that the newspaper section was the one genre where the BNC demonstrated higher frequencies than COCA. On this evidence, Australian English is lagging slightly behind in its preference for the form with a preceding PREP. Diachronic data would also be needed to confirm the direction of the trend.

Another regional divergence is indicated by the relatively larger occurrence of the PREP*+ the moment that/when*in the British subcorpora, when compared to the USNews and OzNews corpora. The higher frequency is strongly influenced by the Times subcorpus, which accounts for 61 out of the total 72 British examples (occurring at 1.3/m words there, as opposed to 0.75/m words in BrNews and 0.12/m words in Sunnow). The prevalence of the full form, with both preposition and relativizer, suggests a preference for the more formal, grammatically ‘correct’ version in the broadsheet newspapers, which is in turn dispreferred in the more colloquial setting of the tabloid newspapers. As argued by Smith ([2014](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#smith_2014)), this full form is marked as a temporal adverbial, whereas the elliptical form has lost the category indicators of preposition and relativizer, and therefore is open to reanalysis as a CS.

The relatively high incidence of PREP preceding *the moment* in both the British and Australian data compared to the US data appears to account for a slightly higher number of lexical contexts in these regions – the preposition in these cases being used to point to a particular moment in time. This distinction doesn’t reflect the overall trend towards grammaticalization, with particularly BrNews, but also OzNews, presenting a much higher proportion of isolating contexts compared to lexical context (4 times as many in the case of the British data), whereas the frequencies are much closer in USNews. If we compare the isolating contexts to the bridging contexts, the frequencies for bridging contexts are higher across all regions, but proportions are less marked in British English than Australian, and are highest for American English. This again indicates that the fully grammaticalized form is less advanced in the US data than in the other varieties, with the ambiguous context much more strongly represented (by a ratio of nearly 7:1, as opposed to around 4:1 for Australia, and 3:1 for Britain).

**3. *For fear***

**3.1 Data**

As for the case study of *the moment*, data was extracted in which preposition + *fear* is followed by a finite clause from the news subcorpora of [WordbanksOnline](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#wbo): for British English from the BrNews, Times, and Sunnow subcorpora, for American English from USNews and Australian English from OzNews. The same figures for the sizes of these corpora were used as in the case study of *the moment*. As in [Section 2](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect2), given the differences in size between the various data sets, normalized frequencies will be used to compare quantitative patterns.

We extracted all instances potentially allowing for a CS reading, using the query ‘preposition [0,2] fear|fears’ followed by a finite complement clause for the WBO data. This query nets *for fear*, for instance, but also instances with a determiner, such as *out of the fear* or with an intervening adjective, as in *in constant fear*. In theory two elements are allowed between the preposition and *fear(s)*, but in the data set it was typically either a determiner or a premodifying adjective. Examples with relative clauses were removed. We found 156 relevant tokens in BrNews, 211 in USNews, and 52 in OzNews.

A first inspection of the data made clear that there are a number of variants of the pattern ‘preposition + *fear(s)* + finite clause’ that potentially allow CS readings in that they can be followed by a *that*-clause. They are summed up and illustrated in Table 7:

|  |  |
| --- | --- |
| *For fear* | *He tells a kitchen worker to throw away three chickens inside the oven for fear they have gone bad.* (WBO, USNews) |
| *In fear(s)* | *Similar uncertainty has affected the agricultural sector as farmers are reluctant to make any plans for their future in fear that they may be moved off their land.* (WBO, BrSpok) |
| *Out of fear(s)* | *Many victims don’t tell their parents out of fear they’ll be barred from using the internet.* (WBO, USNews) |
| *On fear(s)* | *Energy prices are rising in part on fears that the oil-producing nations might out production levels for crude oil.* (WBO, USNews) |

Table 7. Major variants of prepositional patterns incorporating *fear(s)*.

**3.2 Semantic reanalysis**

As shown in [Table 1](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#table1) in Section 1, Quirk et al. ([1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985)) and Biber et al. ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)) did not include *for fear* in their list of CSs. Most corpus-based dictionaries do, however, list *for fear* (but not any of the other preposition + *fear* strings) as subordinator. [[4]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn4) Their treatment of *for fear* is strikingly similar. They all gloss its meaning in terms of negative purpose. For instance, *Collins COBUILD English Dictionary for Advanced Learners* ([2001](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sinclair_2001)) glosses *for fear* as “if you take a particular course of action **for fear** of something, you take the action in order to prevent that thing happening”. The entry in *The Oxford English Dictionary*([1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991)) explicitly refers to the grammaticalization process, by noting that in the phrase *for fear* “in mod. use the sense of the sb is often weakened; thus *for fear of =*‘in order to avoid or prevent’”. The earliest illustrations of the phrase have a nominal complement, e.g. c1489 Caxton *Sonnes of Aymon*xxii. 481 *Wene ye that I shall do that ye saye for fere of deth?.* The first example given of the subordinator use of *for fear that*is: “1678, *Trial of Ireland, Pickering, & Grove* in Howell *St. Trials*(1816) VII. 95 Grove would have had the bullets to be champt, for fear that [if the Bullets were Round, the Wound. might be Cured].” The OED adds that “When *fear*in these locutions is intended to have its full sense, *through*or *from*is now usually substituted for *for*.” At the same time, most dictionaries list two synonymous subordinators, viz. *lest* and *in case*. While *in case* can be used as a negative subordinator, it also has the meaning “In provision against the event that, so as to provide for the possibility that” ([OED](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991)).

We took these observations from the dictionaries to the data as an aid to reconstruct the semantic reanalysis. As the meanings of the lexical and grammaticalized readings are rather different, we can couch the different readings immediately in terms of lexical, bridging and isolating contexts.

Lexical uses in which the preposition phrase with *fear(s)* functions as a sentence adjunct (Quirk et al. [1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985): 503) are illustrated by (17)-(19). In (17) *for fear* *it could be bad news about her missing mother*describes the stimulus for the emotional reaction described in the matrix clause, as shown by the fact that it answers the probe ‘why does Kylie shudder when the phone rings?’. This type of lexical use is also found with *out of fear*, as in (18), where *out of fear* *that one of her French students might recognize her* answers the probe ‘why did she weep?’, and with *on fears*, as in (19), where *on fears it might be paying too much* answers ‘why did the shares plummet?’ Note that in these examples the answer to the probe is basically ‘for/out of/on fear(s)’. The *that*-clause that follows *fear(s)* merely specifies what is feared. In other words, in this lexical use, *fear* clearly has nominal head status and the *that*-complement is embedded in the NP (Matthiessen & Thompson [1988](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#matthiessen_thompson_1988); Halliday [1994](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#halliday_1994): 193).

|  |  |
| --- | --- |
| (17) | Where are you mum, we love you. KYLIE McDowall shudders when the phone rings **for fear** it could be bad news about her missing mother. (WBO\_OzNews) |

|  |  |
| --- | --- |
| (18) | she wept **out of fear** that one of her French students might recognize her (WBO\_USNews) |

|  |  |
| --- | --- |
| (19) | Foster’s shares plummeted to $5.27 **on fears** it might be paying too much. Speculation had also swirled around Southcorp in the final days before. (WBO\_BrNews) |

Examples such as (17)-(19) can be formalized as ‘SoA1 [+ **sentence adjunct:**reason for SoA1=fear of SoA2]’. (SoA is used here as the abbreviation of State of Affairs.) Such unambiguously lexical uses of *for/out of/in/on fear(s)* are associated mainly with examples in which the matrix describes the *reaction* of a person, as in (17)-(18), or of a collective, as in (19), to a specific fear.

A second lexical use is constituted by predication adjuncts (see (20)) within the matrix clause, i.e. adjuncts that complete the predicate (Quirk et al. [1985](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#quirk_et_al_1985): 503). In (20) *what’s going to be on the front page of the paper*specifies what the speaker *lives in fear of*, i.e. what she ‘fears’. *Live in fear* is a composite predicate (Brinton & Akimoto [1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brinton_akimoto_1999)) and is the result of a lexicalization process. The syntactic analysis of this construction can be represented as ‘SoA (composite predicate [**predication adjunct**])’.

|  |  |
| --- | --- |
| (20) | “I live **in dread fear** of what ’s going to be on the front page of the paper,” she told the audience. (WBO\_USNews) |

Turning to the grammaticalized CS meanings, we found that *fear*-phrases + finite clause can convey two connective meanings. The first is the negative purpose meaning focused on in dictionaries, ‘lest’, ‘so that not’ (‘so as not to make happen that’). The second meaning can be expressed by ‘in case’ in the sense of ‘in provision against the possibility that’.

With the first connective meaning, ‘so as not to make happen that’, there is a potentially causative relation between matrix M and subordinate clause SoA2. The matrix describes an agent whose relation to the act described in the clause has the features [+ control] and [+ deliberate]. The agent deliberately performs or refrains from the act described in the matrix so as to *prevent* SoA2 described in the subordinate clause. This introduces a negative element in its semantic structure that is absent from the lexical source construction, which can serve as a recognition criterion to distinguish the lexical adjunct from the negative purpose clause, as illustrated by (17)–(19) above. Importantly, the description of SoA2 is ‘projected’ (Halliday [1994](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#halliday_1994): 196–198) through the consciousness of the agent in the matrix. The propositional attitudes associated with the proposition in the subordinated clause are those of the agent, not of the actual speaker. This important component of the semantics of purpose clauses was pointed out by Verstraete ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#verstraete_2006): 779), who refers to it as the ‘agent-binding’ of the purpose clause. It explains why *for fear* lent itself well to semantic reanalysis into a negative purpose marker: the negative SoA to be avoided is projected through the consciousness of the agent, and semantically generalized *fear*, which is bound to the agent, expresses this explicitly.

The ‘so as not to make happen’ meaning of *for fear* subsumes two basic semantic schemata. On the one hand, the abstract meaning of the subordination relation can be ‘**(M)**not do A1 that might cause SoA2 - **(R) prevent** SoA2’. That is, the relation (R) conveyed by *for fear* is one of ‘preventing’ SoA2 by *not causing* it by the act described in the matrix. An example is (21), in which the agents of the matrix do not attend the sentencing to avoid what they think might be a concomitant SoA, viz. being harassed.

|  |  |
| --- | --- |
| (21) | His wife and children did not attend Friday’s sentencing **for fear** they would be harassed by reporters. (WBO\_USNews) |

The second semantic schema of the ‘prevent’ relation is ‘**(M)**do A1 that will prevent SoA2 - **(R) prevent** SoA2’. Here the agent deliberately performs the act described in the matrix to *cause the non-actualization* of SoA2. For instance, in (22). the agents of the matrix work hard at innovation to prevent the SoA which they view as a possibility, viz. others beating them to it.

|  |  |
| --- | --- |
| (22) | In Silicon Valley, long work hours are a badge of honor. The warp speed of innovation keeps many at full throttle **for fear** someone else will beat them to the next thing (WBO\_USNews) |

*For fear* can also express the meaning ‘in provision against the possibility that’. This second connective sense also involves a causal relationship, but there is no notion of preventing SoA2. Rather, the possibility of SoA2 in the subordinate clause has a causative impact on the actions deliberately undertaken by the agent in the matrix. [[5]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn5) Unlike in the lexical uses where *for/out of fear*describes the specific emotion of fear, *fear* has bleached into conveying a modal meaning here, viz. a negatively evaluated possibility. The modal meaning of *fear* again constitutes a semantic component that clearly distinguishes these grammaticalized uses from the lexical ones. The ‘in provision against the possibility that’ sense also involves two distinct semantic schemata. Firstly, the possibility of SoA2 may cause the agent in the matrix to guard against the negative effects of SoA2 by a specific deliberate act. This use can be paraphrased as ‘**(M)**doA1 **caused by** <- possible SoA2’, as in (23), where the possibility of the chickens having gone bad causes the chef to tell the kitchen worker to throw them away.

|  |  |
| --- | --- |
| (23) | He tells a kitchen worker to throw away three chickens inside the oven **for fear** they have gone bad. (WBO\_USNews) |

Alternatively, the possibility of SoA2 may *not* cause an act on the part of the agent of the matrix – even though the speaker would have viewed this as a natural consequence, i.e. ‘**(M)**not do A1 **not caused by**<- possible SoA2’, as in (24). The possibility that everybody else might know the answer does not cause her to not ask the question.

|  |  |
| --- | --- |
| (24) | she was never, ever intimidated about asking the question **for fear** that everybody else in the room might know the answer. (WBO\_USNews) |

The two grammatical uses just discussed are only found with *for fear*and are by far the most common meanings of this expression. In terms of the stages of the grammaticalization process distinguished by Diewald ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)), they represent the final stage, that of the isolating contexts, which can only receive the new grammaticalized reading.

As the lexical source construction and the grammaticalized target construction are semantically clearly different with the *fea*r-phrases, the in-between stages of the grammaticalization process can also be reconstructed.

The first stage of the grammaticalization process involves what Diewald ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006): 4) calls “untypical contexts”. These are still lexical contexts, but “the new meaning, which may be grammaticalized in the further development, arises as a conversational implicature […] not explicitly coded” (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006): 4). In our data we found such untypical contexts with *out of* (det) *fear(s)* and marginally with *in* (det) *fear(s)*. This type of context is illustrated by (25a), which reports that, in contrast with the military, the FBI has been decreasing its use of private translation firms. The reason for the FBI’s course of action is said to be a specific fear, viz. that the translation companies are not sufficiently screening the translators who get access to secret material. The most likely parsing of *out of fear* + clause in (25a) is thus that it is a sentence adjunct stating the reason for the action in the matrix, as in examples [(17)](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#example17)-[(19)](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#example19) above.

|  |  |
| --- | --- |
| (25) | a. Like the military, the FBI has long relied on private companies to provide translation services. But unlike the military, the FBI has decreased its use of private firms **out of fear** that the companies aren’t thoroughly vetting people who will have access to secret material. (WBO\_USNews) b. \*But unlike the military, the FBI has decreased its use of private firms *so as not to make it happen*that the companies aren’t thoroughly vetting people who will have access to secret material. |

At the same time, the sentence allows the invited inference that by being careful with employing private translators the risk of sensitive material falling in the wrong hands is reduced. As soon as a matrix describes a specific *action* inspired by a fear – rather than a reaction to a fear as in (17)-(19) – an inference of *preventing* an undesirable SoA can arise. By the same token, this is only an inference. The sentence does not describe the purposeful preventing of a specific SoA, because it is not explicitly stated *what*SoA is avoided. This is also why *out of fear*in (25a) cannot be replaced by ‘so that not, so as not to make it happen’, as shown in (25b).

The critical step in the grammaticalization cycle is formed by bridging contexts which are structurally and semantically ambiguous between the old and the new meaning. In our data, bridging contexts are only found with *out of fear*, as illustrated in (26a). This example is concerned with the case of baby Azaria Chamberlain, who was said by her parents to have been carried off and killed by a dingo. Her mother, Lindy Chamberlain, was, however, tried for murder and spent more than three years in prison. The startling turn discussed here involves an old man coming forward after many years with the claim that he saw the dingo with Azaria in its mouth and shot it. [[6]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn6) In this context the question looms large why he did not tell the police earlier and this question receives the answer that he did not do so out of fear, more specifically the fear of being fined for shooting a dog. The context thus clearly supports the parsing of *out of fear* + clause as a sentence adjunct stating the cause of the SoA in the matrix. At the same time, the example also allows the reading that the man refrained from telling the police to *avoid* being fined, that is, a reading of negative purpose is possible, as shown in (26b) because the clause following *fear* explicitly states which SoA2 is being prevented.

|  |  |
| --- | --- |
| (26) | a. The mystery took a startling turn Sunday when a newspaper in the southern city of Melbourne published claims by 87-year-old Frank Cole that he shot the dog with Azaria ’s body still in its jaws while on a camping trip with three friends in August 1980. Cole told the Sunday Herald Sun that he did not tell police what he did **out of fear** he would be fined for shooting the dog. (WBO\_USNews) b. he did not tell police what he did *so that* he would not be fined for shooting the dog. |

**3.3 Syntactic reanalysis**

In this section we consider evidence of syntactic reanalysis of *for fear*, whose conventionalized grammatical meanings were established in the previous section. For *the moment*, the two main formal reflexes of the syntactic reanalysis from prepositional phrase into a CS were the dropping of the preceding preposition and the attestation of what are clearly contexts of ‘free subordination’ (Verstraete [2007](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#verstraete_2007): 170ff), which show the subordinated element to be a clause. As the first reflex is obviously not applicable to *for fear*, we will restrict ourselves to considering the free subordination contexts of *for fear*. (27) is an example in which the comma before *for fear* strongly suggests free subordination: the matrix and the subordinate clause each have their own information units with their own foci. By contrast, (28) is more likely bound subordination, in which *we decided against it* is informationally presupposed, with the *for fear* clause carrying the information focus, *we decided against it for fear it would go out of control*.

|  |  |
| --- | --- |
| (27) | Many doctors are afraid to admit mistakes or explain what happened, **for fear** such statements could be used against them in court. (WBO\_USNews) |

|  |  |
| --- | --- |
| (28) | Mohammed said planning began two and a half years before Sept. 11 and that the first targets considered were nuclear facilities. We “decided against it **for fear** it would go out of control,” Fouda quoted Mohammed as saying. (WBO\_USNews) |

Assuming that punctuation between matrix and subordinate clause indicates that they form distinct information units (as in 27), we verified in how many cases matrix and dependent clause are separated from each other by punctuation. Table 8 gives the absolute frequencies of examples with *for fear* that are separated from the matrix clause by means of punctuation out of all the examples with a complex subordinator reading. By way of comparison, the frequencies of examples with *lest* separated from the matrix by punctuation in the same corpora are also listed.

|  |  |  |
| --- | --- | --- |
|  | ***lest*** | ***for fear*** |
| BrNews | 132/211 | 10/70 |
| USNews | 112/145 | 19/141 |
| OzNews | 45/65 | 4/10 |

Table 8. Examples of *lest* and *for fear* with CS reading separated from matrix clause by punctuation.

It turns out that in 33 out of 221 examples (15%) *for fear (that)* is separated by punctuation from the matrix clause. This is a relatively small proportion in comparison with the *lest* data, where 289 out of 421, or 69%, are separated from the matrix by a comma. This can be explained in a number of ways. Firstly, we have to take into consideration that the iconic order for purpose clauses has the action carried out or refrained from *before* the situation that is being prevented (Diessel [2005](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diessel_2005)). This explains why in our dataset *for fear* did not once occur before the matrix, yielding a no-show of this type of clearly recognizable free subordination. Secondly, it could be that, in spite of lexicographers’ generally categorizing *for fear* as a CS, it is not yet standardly perceived as such by the average language user. Thirdly, *for fear*and *lest*may be developing a sort of complementary distribution, with *for fear*specializing more for bound subordination and *lest* for free subordination, including some non-iconic free subordinated clauses in sentence-initial position (most notably with the idiomaticized *lest we forget* in sentence-initial position). Future research will have to look in more detail into the issues raised by the relation between canonical and emergent CSs, and prosodic analysis will have to be brought to bear on the distinction between bound and free subordination. In any case, we have to conclude that formal reflexes of syntactic reanalysis are less revealing about *for fear* than *the moment*.

**3.4 Decategorialization**

The *fear*-strings potentially allowing for a CS reading always have a preposition. The variation pertains to the presence or absence of determiners, modifiers, number marking and zero or *that*-complementizer. Table 9 presents the distribution over the four basic variants of determiners, adjectival modifiers, singular or plural form, and zero or *that*-complementizer.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | ***for fear*** | ***out of fear*** | ***out of fears*** | ***out of*det + *fear*** | ***in fear*** | ***in fears*** | ***in*det + *fear*** | ***in*det + *fears*** | ***in* + mod + *fear*** | ***on fear*** | ***on fears*** | ***on* + mod + *fear*** | ***on* + mod + *fears*** | **total (n)** |
| BrNews | Ø | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 46 |
|  | that | 38 | 6 | 0 | 1 | 8 | 1 | 1 | 1 | 4 | 0 | 50 | 0 | 0 | 110 |
| USNews | Ø | 86 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 106 |
|  | that | 55 | 27 | 0 | 1 | 6 | 0 | 1 | 0 | 1 | 1 | 11 | 0 | 2 | 105 |
| OzNews | Ø | 30 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 37 |
|  | that | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 15 |

Table 9. Distribution over four basic variants of determiners, adjectival modifiers, singular and plural form, and zero or *that*-complementizer.

In Hoffmann ([2004](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hoffmann_2004): 181ff) it is assumed that the development of complex prepositions from preposition + NP is marked in its more advanced stages by the disappearance of determiners and modifiers from the erstwhile prepositional complement, as in *in front of*, *in view of*, etc. The development of complex subordinators like *for fear* resembles this process because the preposition is retained. This type of variation in the internal structure of the basic variants with *fear* is summed up in Table 10, which indicates whether or not the variant is attested with an article, a possessive determiner, an (adjectival) modifier, and a plural form. As Table 10 shows, only *for fear* has lost all the morphosyntactic properties associated with the discourse function of the category NOUN (Hopper [1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_1991)). The other variants still allow determination, modification and pluralization, which suggests that *fear(s)* still behaves more like a noun in those variants.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Article** | **Possessive** | **Modifier** | **Plural form** |
| *For fear* | - | - | - | - |
| *Out of fear(s)* | + | - | - | + |
| *In fear(s)* | + | + | + | + |
| *On fear(s)* | - | - | + | + |

Table 10. Internal structural variation in major variants.

The grammaticalization of complex NPs into subordinators has also been correlated with the disappearance of the element introducing the dependent clause (Hopper & Traugott [2003](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#hopper_traugott_2003): 117). Table 11 gives the normalized frequencies per million words of zero versus the *that*-complementizer per variant form in the three data sets. The more frequent option per corpus is set in bold. *For fear* comes out with a higher average normalized frequency for zero (0.784) than *that* (0.542). By contrast, for all the other variants, *out of fear*, *in fear* and *on fear(s)*, the pattern with *that* is more common overall. The tendency of *for fear* to drop the complementizer *that* – even if it is not yet very marked – again points to a higher degree of decategorialization of this particular pattern.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | ***for fear*** | ***out of*(det) *fear(s)*** | **in (det) (mod) fear(s)** | **on (mod) fear(s)** |
| BrNews | Ø | 0.345 | 0 | 0 | 0.136 |
|  | that | 0.398 | **0.073** | **0.136** | **0.523** |
| USNews | Ø | **1.324** | 0.274 | 0 | 0.030 |
|  | that | 0.846 | **0.429** | **0.107** | **0.214** |
| OzNews | Ø | **0.992** | 0 | **0.050** | **0.075** |
|  | that | 0.342 | 0 | 0 | 0.045 |

Table 11. *That*-complementizer vs. zero complementizer in the four variants.

**3.5 Context types**

Having discussed semantic and syntactic reanalysis and decategorialization, we are in a position to classify the data into the three context types of the grammaticalization process (Diewald [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006), & Smirnova [2012](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_smirnova_2012)): lexical, critical, or bridging, and isolating contexts. The recognizably different CS meanings ‘so as not to make happen’ and ‘to guard in provision against’ ([Section 3.2](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sect3.2)) determined this classification. Table 12 gives the normalized frequencies of the three main context types per variant. Lexical contexts are given in ordinary font. Contexts in which the grammatical reading is the only one, i.e. isolating contexts, are given in bold. Critical, or bridging, contexts are given in bold numbers in parentheses.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ***for fear*** | ***out of fear*** | ***out of fears*** | ***out of* + det *fear*** | ***in fear*** | ***in fears*** | ***in* + det *fear*** | ***on fears*** |
| BrNews | **0.733** 0.010 | **(0.063)** |  | 0.010 | 0.126 | 0.010 |  | 0.659 |
| USNews | **2.14** 0.03 | **(0.184)** 0.471 | **(0.015)** 0.015 | 0.015 | 0.015 |  | 0.049 | 0.244 |
| OzNews | **1.3** 0.07 |  |  |  | 0.015 |  | 0.034 | 1.200 |

Table 12. Grammatical and lexical uses per variant form.

*For fear*, which is the most frequent overall, has a large predominance of isolating contexts in all three datasets. It still occurs in a few contexts with its original lexical meaning (see [(17)](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#example17) above), but not in bridging contexts. [[7]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftn7) In combination with the fact that it has the highest degree of decategorialization, we see *for fear* as the only variant that has come to be conventionally associated with, and hence ‘codes’, complex subordinator meaning. That *for fear* has largely become a CS is further supported by its relative age, with clear CS examples going back more than four centuries, which allows for strong entrenchment. The OED ([1991](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991)) also stated that lexical adjunct uses are almost never introduced by *for*but rather by other prepositions such as *through* or *from*. In our present-day English data there are indeed only a handful of lexical uses introduced by *for*, with lexical uses being more commonly introduced by *out of,* *in* and *on*.

At the other extreme are *on fear(s)*and *in fear(s)*, which are restricted to lexical contexts. *Out of fear* is the only string that can be interpreted as conveying a connective meaning in some bridging contexts like [(26)](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#example26). As these examples support both lexical and grammatical meanings and are too infrequent to represent entrenched uses, we take it that they do not conventionally code the connective meaning, unlike *for fear*.

**3.6 Frequency and comparison of degrees of grammaticalization across varieties**

As for *the moment*, the various patterns with *fear* show different degrees of grammaticalization in the three main varieties covered by the data. This can again be measured in terms of differences in the degree of decategorialization and normalized frequencies of lexical, bridging and isolating contexts.

Table 13 gives the normalized frequencies pmw of the patterns with *fear*. *For fear*is clearly the most frequent variant across the three datasets, and most frequent in USNews and OzNews. It is the most decategorialized variant as it does not appear with an article, possessive, modifier nor in the plural in any of the three varieties. It very frequently appears without an explicit complementizer, most commonly in USNews (86/141) and OzNews (30/40).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***for fear*** | ***out of* (det) *fear(s)*** | ***in* (det) (mod) *fear(s)*** | ***on* (mod) *fear(s)*** |
| BrNews | 0.743 | 0.073 | 0.136 | 0.659 |
| USNews | 2.170 | 0.676 | 0.107 | 0.244 |
| OzNews | 1.676 | 0 | 0.050 | 1.200 |

Table 13. N pmw of basic variants in three data sets.

The overall normalized frequencies of the other patterns are fairly low compared to those of *for fear*. However, within this lower frequency bracket, *on fear(s)* stands out as having the second highest N pmw in BrNews and OzNews, while *out of fear* has the second highest N pmw in USNews.

Except for a few rare lexical uses, *for fear* predominantly appears in isolating contexts and is no longer attested in bridging contexts in all three varieties. As a complex subordinator it is more frequent in American English. Since *for fear* belongs to a rather formal register and is more typical of the written mode this might be linked to the fact that North American English has been described as the more conservative variety (see Montgomery [2001](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#montgomery_2001): 105ff; Brinton & Arnovick [2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brinton_arnovick_2006)).

Table 14 gives the overall normalized frequencies pmw for lexical, bridging and isolating contexts of the *fear* expressions in the three datasets, as did [Table 6](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#table6) for the *moment*-expressions. The three varieties resemble each other in having low normalized frequencies of bridging contexts. BrNews and OzNews further resemble each other in having comparable frequencies of lexical and isolating contexts. USNews, by contrast, stands out in having a normalized frequency of isolating contexts that is more than twice as high as the lexical contexts. American written English thus stands out as the variety in which the fairly formal CS *for fear* is most frequent.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Lexical contexts** | **Bridging contexts** | **Isolating contexts** |
| BrNews | 0.805 | 0.063 | 0.733 |
| USNews | 0.839 | 0.199 | 2.14 |
| OzNews | 1.319 | 0 | 1.3 |

Table 14. Normalized frequencies of lexical, bridging and isolating contexts.

**4. General conclusion**

In this article we set out to develop a general analytical framework to identify emergent complex subordinators (CSs) in corpus data and to measure their degree of grammaticalization. We chose two strings whose (complex) subordinator status is not generally recognized, viz. phrases with *moment*and *fear*. At a schematic level, their source constructions are both formed by preposition + *moment/fear* + linker + clause, but at a more specific level, they differ: *moment*is followed by a relative clause and *fear*by a complement clause.

We operationalized the identification of CS uses as classification of the corpus examples in terms of the three context types associated by Diewald ([2006](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#diewald_2006)) with grammaticalization: lexical, bridging and isolating contexts. For both strings, the classification of the examples was broached by establishing whether semantic or syntactic reanalysis had taken place. Semantic reanalysis entails a shift from designating a specific *moment* or*fear* to expressing the relations ‘as soon as’ or ‘when’ and ‘lest’ or ‘in case’. Syntactic reanalysis requires a shift from an adjunct with an embedded clause in its NP, [[*at/for* NP[*the/a* *moment/fear* [*when/that*-clause]] , to a subordinated clause linked by subordinator, [CS*the moment/for fear*+ subordinated clause], to a head clause.

We found that the specific mix of semantic and syntactic observations brought to the classification of the examples differed somewhat for the two cases. In the *moment* case, the temporal CS relations of simultaneity and anteriority are fairly close to the meaning of a ‘moment in time’ designated by the NP in the adjunct use. However, two formal features point to isolating contexts: the dropping of the preposition and the occurrence in free subordination contexts. By contrast, in the *fear* case, the CS relations are more clearly distinct from the lexical uses. The ‘so as not to make happen’ sense incorporates a negative component and the ‘providing against the possibility that’ sense includes a distinct modal element. Hence, semantic analysis provided the main criteria for classification, which then turned out to tally with the specific decategorialization of *for fear*, which keeps its preposition but does not occur with determiners or modifiers.

The classification into lexical, bridging and isolating contexts and the inventories of decategorialization were used to assess and compare degrees of grammaticalization. The grammaticalization of *the moment* came out as less advanced than that of *for fear*, as the former has many more contexts that remain ambiguous between an adjunct and a subordinated clause reading. (PREP +) *the mome*nt also lacks the strong association with one decategorialized form that we find in the case of *for fear*. The two case studies also showed that variety (British English, American English, Australian English) affects the degree of grammaticalization as reflected in normalized frequencies pmw. The grammaticalization and decategorialization of *the moment* is most advanced in the British English data studied for this article and *for fear* in the American English data.

**Notes**

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[2] It is no doubt because of these similarities in source and target structures that Biber et al ([1999](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#biber_et_al_1999)) put *the moment* in the same cell as *on condition*, which has the same resulting target structure as *for fear* (see [Table 1](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#table1)). [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref2)

[3] In the WBO release notes, the size of the subcorpora is given in terms of tokens, which count, besides words and numbers, punctuation marks. Because we wanted to normalize on the basis of words and numbers only, we subtracted for each subcorpus the percentage that is taken up by punctuation in the whole corpus, viz. 16.57%. We are aware of the fact that this is only an approximation for each of the subcorpora. [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref3)

[4] The dictionaries consulted not referred to in the body of the text are: *Random House Dictionary* ([1971](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#stein_1971)), The *Macquarie Dictionary*([1981](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#delbridge_1981)), *Chambers Dictionary* ([1978](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#macdonald_1978)), *Collins COBUILD English Language Dictionary* ([1987](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#sinclair_1987)). [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref4)

[5] Martin ([1992](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#martin_1992): 193) notes that conditional clauses generally function as potential causes of the act described by the matrix. For instance, in *If we train hard, we will win*, training hard is said to cause victory. [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref5)

[6] This testimony was judged not credible by the police. [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref6)

[7] In this respect, it resembles a largely grammaticalized element like *a lot*, which is used as a quantifier in the large majority of its uses, but is still occasionally found as a lexical head in such expressions as *five lots of salt to thirteen lots of fresh water* ([OED](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#simpson_weiner_1991)). It is currently almost never found occur in bridging contexts (Brems [2011](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#brems_2011)). [[Go back up]](http://www.helsinki.fi/varieng/series/volumes/18/davidse_brems_smith/#_ftnref7)

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WBO = Wordbanks Online. Harper Collins. Available at [http://wordbanks.harpercollins.co.uk](http://wordbanks.harpercollins.co.uk/)

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