

GRAMMATICALIZATION VS. LEXICALIZATION: THE FUNCTIONAL DISCOURSE GRAMMAR VIEW

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ABSTRACT

Within the context of language change studies, grammaticalization has constituted the most flourishing topic. Having as the main tenet the principle of unidirectionality, a cline of categoriality has been put forward according to which all 'minor' parts of speech would have their origin in 'major' classes. In order to determine the class to which a certain linguistic category belongs to, studies on grammaticalization have commonly taken as a basis the traditional classification of parts of speech. In this paper it is argued that if the traditional classification of parts of speech were not taken for granted (as it is claimed it shouldn't be), a different account could be given for some cases of linguistic change often dealt with as cases of grammaticalization. In doing so, I aim at avoiding the biased practice of considering that any change towards a traditionally 'minor' class implies a process of grammaticalization. This position is illustrated by analyzing the formation of some English complex conjunctions, which will be described as a process of lexicalization. The implications of this analysis for Functional Discourse Grammar are finally considered.

KEY WORDS: Grammaticalization, lexicalization, conjunctions, Functional Discourse Grammar, English.

RESUMEN

En el contexto de los estudios sobre cambio lingüístico, la gramaticalización ha constituido el tema más prolífico. Defendiendo como concepto fundamental el principio de unidireccionalidad, se postula un continuum de categorialidad según el cual todas las partes del habla 'menores' tienen su origen en clases 'mayores'. Para determinar a qué clase pertenece una categoría determinada, los estudios sobre gramaticalización se han basado por lo general en la clasificación tradicional de las partes del habla. En este artículo se sostiene que si la clasificación tradicional de las partes del habla no se diera por sentada (como se considera que no debiera ser), sería posible ofrecer otro tipo de análisis para algunos casos de cambio lingüístico a menudo analizados como casos de gramaticalización. De esta manera se pretende evitar la práctica sesgada de considerar que cualquier cambio hacia una clase tradicionalmente 'menor' implica un proceso de gramaticalización. Esta posición se ilustra mediante el análisis de la formación de algunas conjunciones complejas del inglés, que será descrita como un proceso de lexicalización. Finalmente, se tendrá en cuenta la implicación de este análisis para la Gramática Discursivo-Funcional.

PALABRAS CLAVE: Gramaticalización, lexicalización, conjunciones, Gramática Discursivo-Funcional, inglés.



1. INTRODUCTION

The literature on linguistic change has been mainly dominated by the concept of grammaticalization, understood as a unidirectional process. Unidirectionality, constituting one of the basic tenets of grammaticalization, implies that “grammatical forms do not in general move ‘uphill’ to become lexical, whereas the reverse change, whereby grammatical forms are seen to have their origin in lexical forms is widespread and well documented” (Hopper and Traugott 16). These authors put forward a cline of grammaticality that implies that all minor classes would have their origins in major classes.

- (1) Cline of Categoriality (Hopper and Traugott 107)
Major category (> intermediate category) > minor category

Given the importance attributed to the cline of categoriality, lexicalization has been often considered as the reverse of grammaticalization.

Although overshadowed by the importance given to grammaticalization, some processes of language change have received different analyses. The fact that the same linguistic phenomenon can be analyzed as undergoing different processes (i.e. grammaticalization and lexicalization) suggests that the main reason justifying the analysis in one or the other direction concerns opposing views on what the status (lexical vs. grammatical) of the linguistic units involved is.

The aim of this paper is to analyze English ‘complex’ subordinating conjunctions from the perspective of their origin and the type of process involved in their formation. I will proceed, first, delimiting and exemplifying the type of linguistic item subsumed under the term ‘complex’ conjunction in English (Section 2). After discussing the different approaches to the formation of complex conjunctions (Section 3), it is claimed that such a linguistic change is better described as a process of lexicalization (Section 4). Section 5 presents the main implications of this analysis for Functional Discourse Grammar (henceforth, FDG). Finally, the main conclusions arrived at are presented (Section 6).

2. ENGLISH ‘COMPLEX’ (SUBORDINATING) CONJUNCTIONS

Any study of the part of speech traditionally known as ‘(subordinating) conjunction’ requires some delimitation concerning three main aspects:

- 2.1. Overlap between conjunctions and other parts of speech.
- 2.2. Lack of homogeneity within the class.
- 2.3. The status of conjunctions as members of a lexical or a grammatical class.



2.1. OVERLAP BETWEEN CONJUNCTIONS AND OTHER PARTS OF SPEECH

Descriptive grammars of English (Biber, Johansson, Leech, Conrad and Finegan; Huddleston and Pullum; Quirk, Greenbaum, Leech and Svartvik) emphasize the existence of a certain degree of overlap between the items belonging to the class of subordinating conjunctions and those belonging to the class of prepositions. Quirk, Greenbaum, Leech and Svartvik (659-660) mention that prepositions and conjunctions share a relating or connecting function. Thus, the same items (e.g. *after, as, before, since, until*) can be used both as prepositions and conjunctions, the difference lying on the type of complement they take. Prepositions cannot take finite clauses as complement, whereas conjunctions do not introduce noun phrases. Similarly, Pullum and Huddleston (599-600) put forward a definition of prepositions broader than the traditional one, including within this category certain adverbs and subordinating conjunctions. These authors claim that the fact that these traditional categories take different complements does not constitute a sound reason to treat them as different parts of speech. In the same way as the difference in the type of complement does not justify assigning a verbal predicate such as *remember* to two different parts of speech (e.g. *I remember the accident / I remember you promised to help*).

Thus, although for the sake of clarity and since the analysis would be restricted to items governing clauses, the term conjunction is used in the present paper, it is claimed that (subordinating) conjunctions and adpositions could be subsumed within a single part of speech.¹ Thus, studies concerning one of these traditionally separate classes can be said to apply to the other.

2.2. LACK OF HOMOGENEITY WITHIN THE CLASS

Like adpositions, conjunctions can be traditionally said to be *simple* (e.g. *because, although,...*), consisting of one word,² or *complex*, consisting of more than one word (e.g. *in case, provided / providing (that)*). It should be noted, however, that such a distinction is somewhat artificial, since many of the traditional 'complex' conjunctions are very often formed by a single form, as the second element *that* can be optional.

The position adopted here as regards those subordinating conjunctions is that *that* is not part of the conjunction but the element introducing the complement

¹ In Pérez Quintero ("Adpositions"), Mackenzie's proposal ("Adverbs") to distinguish a wide category, Ad, that conflates adverbial predicates and adpositions was adopted and extended so as to include adverbial subordinating conjunctions.

² Although historically they are derived from the combination of two elements (e.g. Old English *Pa hwile Pe* 'that time that' > *hwile* 'while' – Hopper and Traugott). Quirk, Greenbaum, Leech and Svartvik (998) argue that "The distinction in form between the simple and complex subordinators is in part orthographic, since more of the simple subordinators are internally (that is morphologically) complex."



clause that follows. This analysis is more consistent with: (i) the fact that *that* can be omitted, without having to resort to any kind of deletion rules and (ii) the fact that some conjunctions take a *that*-complement or an infinitival complement (e.g. *in order that their baby have food / in order for their baby to have food / in order to save food for their baby* – Huddleston, “Content” 1014), without having to recognize two different complex units (e.g. *in order that* and *in order to*). When defending this position, Huddleston (“Content” 1013) claims that an important feature is that *that* can be repeated in coordination (e.g. *provided [that you pay me and that I’m allowed to do it my way]*).

The class of conjunctions is thus better conceived of as a heterogeneous class consisting of single-word forms, multi-word forms and deverbal forms. The last two constitute the main concern here. The following conjunctions will be, thus, considered:

- (i) Multi-word forms (prep + noun): *in the event, on the basis, on the grounds, to the effect / for all, for fear, on condition / in case, in order, in two minds.* (Huddleston and Pullum 623)
- (ii) Deverbal forms: from –ing participle —*considering, notwithstanding, seeing, supposing, providing*; from past participle —*provided, granted*.

As will be seen later, these conjunctions show different degrees of fossilization.

Another aspect in relation to which it is often claimed that conjunctions constitute a heterogeneous class concerns the classification of these linguistic items as either belonging to a lexical or a grammatical class. This distinction leads us to the third aspect said to require some delimitation: the lexical / grammatical dichotomy.

2.3. LEXICAL / GRAMMATICAL DICHOTOMY

The distinction between lexical and grammatical categories is a recurrent topic in the general theory of parts of speech, which has its origin in the Greek and Roman tradition.

Both Functional Grammar (henceforth, FG) and Discourse Functional Grammar (henceforth, FDG) have been characterized by postulating strict categorization. Within FDG, although Hengeveld and Mackenzie acknowledge that gradience has a role to play within grammar, especially from a diachronic perspective, they argue, however, that from a synchronic perspective, “FDG postulates a sharp distinction between the lexical and the grammatical, a distinction that is integral to the way in which items will be represented in our analysis” (9).

The lexical-grammatical dichotomy and the possibility of representing gradience in FDG underlying representation has been addressed by Keizer (“Lexical-grammatical”), who stresses the importance of providing a set of different criteria that could be systematically applied to determine the lexical-grammatical status of linguistic items. Applying these criteria to the classification of different linguistic



items in English,³ she establishes a classification in which four major groups are distinguished: primary lexical, secondary lexical, secondary grammatical and primary grammatical elements.

Independently of the number of distinctions posited, what becomes evident is the need to draw a boundary between them. Thus, we share Keizer's ("Lexical-grammatical" 52) position, consistent with standard FDG, in the sense that "although we know the difference between lexical and grammatical to be non-discrete, we nevertheless need to draw a line; this needs to be done in a principle and consistent way, on the basis of well-defined criteria, and for each language individually."⁴

Most traditional definitions of parts of speech have been either notional (e.g. nouns designate objects), formal (e.g. verbs can be inflected for tense, aspect,...) or a combination of meaning and functions (e.g. adjectives designate properties and modify nouns). More recent approaches resort either to syntactic definitions, as is the case in generative work, or to cognitive, conceptual structures, as in the functional-typological tradition.⁵ However, most of these approaches lack a set of well-defined criteria for determining how to classify a particular linguistic item as belonging to a specific (lexical/grammatical) category.

Within FDG, the main contribution has been outlined by Keizer ("Lexical-grammatical"), who presents a set of pragmatic, semantic, morphosyntactic and phonological criteria in order to classify linguistic items with respect to the lexical-grammatical distinction. If attention is paid to the proposed criteria, it seems that there are criteria of a certain different nature: some concern distributional / behavioral properties (mainly those grouped under 'morphosyntactic criteria'), whereas others describe the changes undergone by a linguistic item during the process of grammaticalization, mainly 'pragmatic criteria' (loss of ascriptive function, loss of the possibility of Focus assignment, increased frequency), 'semantic criteria' (desemantization or bleaching, i.e. loss of meaning) and 'phonological criteria' (phonetically reduced; fusion). Since studies on grammaticalization in most of the cases (See Traugott and Heine; Hopper and Traugott) take as a point of departure the traditional classification of the parts of speech without questioning it, the changes said to characterize an element undergoing grammaticalization are in fact the changes said to characterize an element situated at the left end of the cline of categoriality (Hopper and Traugott 107 – major category (>intermediate category) > minor category), namely an element of the minor category (preposition, conjunction, auxiliary verb, pronoun,

³ Keizer ("Lexical-grammatical" 37) acknowledges that "the classification in question [of linguistic elements as lexical or grammatical], and in particular the boundary between the main categories (lexical vs. grammatical), are language specific."

⁴ Note, however, that some authors arrived just at the opposite conclusion, as Brinton and Traugott (18) point out: "We have seen that problems in establishing clear binary distinction between lexical and grammatical categories and between major and minor (functional) or open and closed word classes have led scholars to adopt a gradience view of lexical and grammatical."

⁵ For a brief account of the main positions concerning the lexical/grammatical dichotomy see Brinton and Traugott (11-18).



and demonstrative). Thus, in a way studies on grammaticalization are describing the changes undergone by a linguistic item in order to become a 'minor class', without describing a priori the criteria used to distinguish the behavior of a lexical unit as opposed to a grammatical unit. In other words, what they are doing is assuming the traditional classification of parts of speech and describing grammaticalization as a process by which a traditional lexical unit becomes a traditional grammatical unit, without providing clear criteria to distinguish a priori the two traditional categories.

The position adopted here is that in order to approach language change, more specifically the formation of complex (subordinating) conjunctions: (i) First, linguistic items should be classified as either lexical or grammatical and, then, (ii) the different changes can be described as involving a loss/gain of certain features and, therefore, implying a move in one or another direction. Thus, conjunctions will be first classified as 'lexical' or 'grammatical' units mainly on the basis of distributional criteria, that is, "criteria that have to do with semantically based morphosyntactic configurations that are allowed in a language" (Hengeveld and Mackenzie 131) and later the changes yielding the formation of these units will be described. In so doing, I aim at avoiding the 'biased' practice of considering that any change towards a traditional minor class (i.e. conjunctions) implies a process of grammaticalization.

Conjunctions have been traditionally analyzed, together with adpositions, as members of minor, closed classes, also known as 'function / structure / grammatical words'. This classification suggests that members of this class do not express lexical meaning but grammatical relations.⁶

Within FG, characterized by establishing a sharp distinction between lexical and grammatical categories, conjunctions were considered grammatical elements of linguistic expressions which were provided by the application of the corresponding set of expression rules to the fully specified underlying clause structure, which contained only lexical elements. However, within this former model, some suggestions (Pérez Quintero, "Adpositions") have been made so as to include adverbial conjunctions, alongside adpositions and adverbs, within the category of predicates.

In their analysis of adverbial conjunctions within FDG, Hengeveld and Wanders establish a distinction between *lexical* and *grammatical* adverbial conjunctions, parallel to the one put forward by Mackenzie ("Places," "English", "Adverbs") for adpositions. Two features related to their syntactic behavior are claimed to justify this distinction:

- (i) Lexical (examples in 2), but not grammatical (examples in 3), conjunctions can be modified by additional lexical means, as they illustrate with the following examples (Hengeveld and Wanders 214):

⁶ Lehmann argues that "the criterion of lexical vs. grammatical is independent of the word classes and yields two subclasses of each of them", thus asserting that "there are lexical and grammatical words in each of the word classes."



- (2) a. She called him *three hours before* she left. (simple lexical conjunction)
- b. *In the unlikely event* that smallpox were introduced into Australia, it would be rapidly controlled. (complex lexical conjunction)
- (3) a. *She stayed home *three hours until* the meeting began. (simple grammatical conjunction)
- b. *I'll bring him some water *in unlikely case* she gets thirsty. (complex grammatical conjunction)
- (ii) Grammatical and lexical conjunctions can be combined, being the opposite order excluded.
- (4) a. She stayed *until three hours after* he left. (grammatical + simple lexical conjunction)
- b. She didn't leave *until the very moment* he arrived. (grammatical + complex lexical conjunction)

It could be claimed, however, that these two criteria, modification and combinability, do not seem to plainly justify the distinction of lexical and grammatical conjunctions.⁷ As far as modification is concerned, it can be argued that the readiness (/lack of readiness) of a conjunction to be modified depends more on semantic than on grammatical matters. Temporal conjunctions are more easily modified than other types of conjunction such as causative, concessive,... Among temporal conjunctions, expressions such as *three hours, shortly,...*, are more likely to modify conjunctions such as *before* or *after*, which indicate relations between events, than *until*, which indicates a point in time. Note, however, that *until*, that is considered a grammatical conjunction by these authors, allows other type of modifiers, as in (5):

- (5) 'I agreed to move in with him *just until* my divorce came through and I insisted we married immediately after that.' [BNC-CB8]

Whereas in some cases, as argued by Hengeveld and Wanders, the modification seems to have scope over the whole adverbial clause and not just over the conjunction or part of the conjunctive phrase⁸ (e.g. *Only in case* it rains will I stay home, that could be paraphrased as 'only then/in those circumstances'), in this

⁷ The same claim has been put forward by Keizer ("English prepositions" 217) in relation to the lexical/grammatical status of adpositions. She argues that "Unfortunately, the classification of adpositions as either lexical or grammatical is rarely justified by linguistic evidence."

⁸ When defining the criteria used for determining the lexical-grammatical status of adpositions in English, Keizer ("Lexical-grammatical" 42) points out that sometimes it is difficult to establish the scope of the modifier and that using intuition in those cases is not enough. Thus, she concludes that "the criterion 'not modifiable' will therefore be applied to the construction as a whole, not to any of its component elements" (43).



example the modifier cannot be said to have wider scope, since the sentence is not paraphrased as ‘just then/at that moment’ but as ‘just until then/that moment’.⁹

As regards the criterion of combinability, its applicability is very limited since, as pointed out by Hengeveld and Wanders, it is restricted due to semantic reasons to temporal conjunctions.

In the fourfold classification put forward by Keizer (“Lexical-grammatical”), the two conjunctions analyzed by her fall within two groups, namely, the group of secondary lexical elements (e.g. *in the event that*), “combinations of lexemes that have come to behave as a single lexeme” (48) and secondary grammatical elements (e.g. *in case*). She concludes that “it seems justified to regard some conjunctions as more lexical than others (e.g. *in the event that* as more lexical than *in case*), even to the extent that some are to be regarded as lexical and others as grammatical” (47). However, the established distinction seems to be more related to the degree of cohesiveness between the elements that constitute the complex conjunction than to the lexical/grammatical status of these (more or less) fixed constructions in the grammar of English. In other words, from the fact that certain complex constructions exhibit a higher degree of idiomaticity or fossilization, it cannot be deduced that a phrase as a whole is more grammatical than other. Thus, as was mentioned before, it is preferable not to use criteria related to the formation of conjunctions as criteria for determining their grammatical-lexical status.

It is claimed here that there are no sound reasons to distinguish between lexical and grammatical conjunctions. Thus, subordinating conjunctions, like adpositions, should be considered lexical elements, on the grounds that:

- (i) Conjunctions, like adpositions, although sometimes expressing a somewhat primitive or basic meaning, can be said to have semantic content.¹⁰ Huddleston (“Content” 1012) contends that subordinating conjunctions “are not mere markers of subordination: they have evident semantic content, and this content is clearly the major factor in determining the function and distribution of the construction they introduce.” In this sense, they are heads (such as verbs, nouns, adjectives, adverbs and prepositions) that can take an argument (so they are ‘configurational heads’ in FDG).
- (ii) Several morphosyntactic features justify the fact that they are regarded as lexical heads:

⁹ The same applies to their example *He continued walking around exactly until the meeting began*, that they paraphrase as ‘exactly then/at that moment’, expression that doesn’t convey the meaning of terminal point implied by ‘exactly until then/that moment’.

¹⁰ In the case of adpositions, it has been claimed (Pérez Quintero, “Adpositions”; Keizer, “English prepositions”) that all adpositions have a semantic content and that the fact that some adpositions express a more basic meaning does not justify the distinction of lexical and grammatical adpositions.



- a. Some conjunctions, mainly those indicating spatial or temporal relations, can be modified by lexical elements, just as other lexical heads.
- (6) The man, who said his name was Dave, told detectives about a friend who'd been looking for Carol *shortly before* she died. [BNC-K1L]
- b. Although conjunctions do not form the basis for word formation, as other lexical items do, some minor cases of conversion to nouns can be found.
- (7) 'NO BUTS, MAYBES, IFS OR BECAUSES,' shouted the Headmaster. [BNC-AMB]
- (8) I supposed he was right about not concentrating: a touch of the morning afters. [BNC-ADY]

However, three traditional subordinating conjunctions should be excluded, namely, the complementizer *that*, *whether* and *if* (in its meaning equivalent to *whether*). As suggested by Pullum and Huddleston (600), these items are “markers of subordination, not heads of the constructions in which they figure”.¹¹

The position adopted towards the lexical-grammatical dichotomy as well as the classification of parts of speech condition the type of analyses and explanations given to account for the formation of complex conjunctions.

3. APPROACHES TO THE FORMATION OF ENGLISH 'COMPLEX' CONJUNCTIONS: GRAMMATICALIZATION VS. LEXICALIZATION

As has been pointed out before, conjunctions have been traditionally analyzed, together with adpositions, as members of minor classes and, consequently, their origin has been treated as an instance of grammaticalization.

This widely extended tradition is clearly put forward by Hopper and Traugott (4):

it is usually accepted that some kind of distinctions can be made in all languages between “content” words (also called “lexical items,” or “contentives”), and “function” words (also called “grammatical” words). The words *example*, *accept*, and *green* (i.e., nouns, verbs, and adjectives) are examples of lexical items. Such words are used to report or describe things, actions, and qualities. The words *of*, *and*, *or*, *it*, *this*, that is, prepositions, connectives, pronouns, and demonstratives, are function words. They serve to indicate relationships of nominals to each other (preposition),

¹¹ This claim is parallel to the one posited for adpositions (Pérez Quintero “Adpositions”; Keizer “English prepositions”) in the sense that all adpositions are considered lexical elements, although certain grammatical uses are distinguished (e.g. *by*).



to link parts of a discourse (connectives), to indicate whether entities and participants in a discourse are already identified or not (pronoun and articles), and to show whether they are close to the speaker or hearer (demonstratives). Frequently it can be shown that function words have their origins in content words. When a content word assumes the grammatical characteristics of a function word, the form is said to be “grammaticalized”. Quite often what is grammaticalized is not a single content word but an entire construction that includes that word as for example Old English *Ða hwile Ðe* ‘that time that’ > *hwile* ‘while’ (a temporal connective).

From the many different definitions of grammaticalization that have been given,¹² it becomes evident that this concept, understood from a historical perspective¹³ covers “that part of the study of language change that is concerned with such questions as how lexical items and constructions come in certain linguistic contexts to serve grammatical functions or how grammatical items develop new grammatical functions” (Hopper and Traugott 1). Thus, grammaticalization implies a change from the lexicon to the grammar, what Moreno Cabrera describes as a syntactotelic process, that has been generally assumed to imply that the form undergoing grammaticalization loses the morphosyntactic features that would identify it as a member of a major class. This change, which does not take place abruptly, but gradually,¹⁴ has been formalized as a ‘cline¹⁵ of categoriality’, represented in (1) and repeated here for convenience, that states (Hopper and Traugott 107):

(9) major class (> intermediate category) > minor category

According to this position, all minor classes, among which conjunctions have been traditionally classified (together with prepositions, auxiliary verbs, pronouns, and demonstratives), would have their origins in major classes (noun and verb).¹⁶

¹² See Norde for a survey of the main definitions of this concept.

¹³ See Brinton and Traugott for a consideration of grammaticalization from a synchronic perspective. These authors claim that “From a synchronic perspective, grammaticalization is primarily a morphosyntactic, discourse pragmatic phenomenon, to be studied from the point of view of fluid, dynamic patterns of language use at a moment in time” (22).

¹⁴ Brinton and Traugott mention two opposing approaches to language change, namely “one in which change is abrupt, complete, and language internal and may be equated with innovation (from one generation of speakers to another), and the other in which change depends upon variation, proceeds gradually, and is shaped by linguistic and social factors. Studies of grammaticalization and lexicalization have generally been carried out following the latter model of language change” (9).

¹⁵ The concept of cline was introduced by Hopper and Traugott in 1993 and slightly modified in the second 2003 edition in order to illustrate the series of stages that conforms a specific gradual change. These authors point out that “The term “cline” is a metaphor for the empirical observation that cross linguistically forms tend to undergo the same kinds of changes or have similar sets of relationships, in similar orders” (6). Different clines have been proposed, therefore, as a way of conceptualizing language change, “based on the many different dimensions of forms and meaning that are found in language” (7).

¹⁶ Adjectives and adverbs are considered an intermediate category, that often derives directly form (participial) verbs and (locative, manner,...) nouns, respectively (Hopper and Traugott 106).



One of the basic tenets of grammaticalization is that this change from lexicon to grammar strongly implies unidirectionality.¹⁷ Thus, it is generally claimed that grammaticalization is unidirectional, always entailing a change from less grammatical to more grammatical, a change that Hopper and Traugott (16) have formalized in the cline of grammaticalization:

(10) less grammatical > more grammatical

These authors argue that:¹⁸

Unidirectionality is a strong hypothesis that is based on observations about change, observations that lead to the conclusion that grammatical forms do not in general move “uphill” to become lexical, whereas the reverse change, whereby grammatical forms are seen to have their origins in lexical forms is widespread and well documented. (Hopper and Traugott 16)

In their analysis of the evolution of OE present participial morpheme, *-ende*, Brinton and Traugott (111-122) consider the development into a present participial adjective a case of lexicalization and the development into present participial prepositions and conjunctions (e.g. *considering, including*) a case of grammaticalization. However, there is no justification for considering the development of present participial prepositions and conjunctions a case of grammaticalization, apart from the fact that the result is a preposition or a conjunction. When commenting on Kortmann and König’s analysis of deverbal prepositions, they state:

Kortmann and König (1992) propose that participals in free adjuncts and absolutes were reanalyzed in syntactically different ways, but in both cases the outcome was

¹⁷ The concept of unidirectionality, as one of the major axioms of grammaticalization theory, has been questioned by Moreno Cabrera, who considers more adequate to characterize this process as irreversible. He argues that directionality is not only an issue of grammaticalization, but of linguistic change in general. He claims that:

Language evolution is, on the contrary, bidirectional and comprises both grammaticalization and lexicalization. In language change there is a constant movement from the lexicon to the syntax and the other way around. We do not observe languages gradually losing their lexicon and enriching their morphology and syntax. Nor do we observe languages gradually increasing their lexicon and losing their morphology and syntax. This means that language evolution is not exclusively a process of grammaticalization or lexicalization. Only the interaction of the two processes can produce the balanced results we observe in language evolution. (224)

¹⁸ Nevertheless, they admit that this strong hypothesis can be subject to question and discussed different conceptions of the topic (Hopper and Traugott 131). Thus, in contraposition to this strong principle entailing that lexical items can become grammatical but not vice versa, it is also argued (Norde) that a weaker interpretation of the concept is also possible. According to this weak interpretation, unidirectionality is conceived, not as an absolute principle, but as a preferred tendency that underlines language change, thus, leaving some room for counterdirectionality.



a preposition and the change was an instance of *grammaticalization*. [emphasis added] (Brinton and Traugott 118)

Although this quotation seems to suggest that Kortmann and König's analysis of deverbal prepositions implies an instance of grammaticalization, that is not the case since they use the term *reanalysis* and explicitly explain:

The reason why we avoided the term *grammaticalization* and use the more neutral term *reanalysis* is that prepositions are regarded as major lexical categories like nouns, verbs and adjectives in X-bar theory. Many syntacticians would therefore reject the view that the development of prepositions from verbs or nouns can be seen as a change from lexemes to grammatical formatives or from less grammatical to more grammatical elements. (König and Kortmann 112)

The development of complex prepositions (e.g. *among* < OE *on gemang* 'in crowd') has been object to other interpretations. Brinton and Traugott (65) mention that Ramat sees "both grammaticalization and lexicalization at work in these examples, conceding that 'the boundary between lexical and grammatical units is not neat'". For other authors (Quirk, Greenbaum, Leech and Svartvik; Lehmann), however, those formations imply a case of lexicalization.

Brinton and Traugott (64) give the following explanation concerning the analysis of the development of some fixed phrases, such as complex prepositions and conjunctions:

Since they result in frozen, if complex forms, they would seem to constitute prima facie examples of lexicalization. However, since they also involve items that are "grammatical" (closed class, functional), they may at the same time seem to be examples of grammaticalization. Among the important types of freezing subject to differing interpretations are phrasal and prepositional verbs (e.g., *point out*, *think about*), complex prepositions (*except for*, *depending on*), correlative coordinators (*both...and*, *either...or*), complex subordinators (*as soon as*, *in order that*), and "inserts", or discourse markers (*you know*, *I mean*)

Within FDG, Hengeveld and Wanders when considering the development of subordinating conjunctions, refer to a *process of grammaticalization*. Though this analysis could be consistent with the development of the group of grammatical conjunctions that they distinguished, it doesn't seem to account for the existence of lexical conjunctions. Summarizing the behavior of conjunctions operating on the representational level, they contend:

we find that next to a limited number of lexical items that are specialized in conjoining and therefore have to be identified as belonging to a lexical class of conjunctions, complex lexical conjunctions exploit existing lexical categories of the language in order to indirectly express a semantic relation between clauses. In all cases discussed *grammaticalization* of the construction leads to a situation in which the internal complexity of the construction is reduced and the semantic relation between clauses is established directly through a *grammatical* element. [emphasis added] (Hengeveld and Wanders 220-221)



Thus, it seems that the term ‘complex lexical conjunction’ is just restricted to those cases in which constructions formed by existing lexical categories of the language are exploited “in order to indirectly express a semantic relation between clauses.” When the internal complexity of the construction is reduced, that is, when it becomes more fossilized, a grammatical element originates through grammaticalization. But, how does an “exploited existing lexical category” become a complex lexical conjunction? What confers complex lexical conjunctions their lexical status? Since these authors distinguish at least a small group of complex lexical conjunctions (e.g. *in the event that*) operating on the representational level, it is necessary to account for the difference between this type of conjunctions and syntactic combinations of words. Thus, at least as a first step towards grammaticalization, a different type of change has to be observed.

The fact that the same linguistic phenomenon, such as the origin of complex prepositions or conjunctions, can be analyzed both as a case of grammaticalization and lexicalization, suggests that these two processes share some characteristics and that the main reason justifying the analysis in one or the other direction concerns opposing opinions on the lexical and grammatical status of the resulting linguistic items involved. Given the importance attributed to the cline of grammaticalization, lexicalization has been often considered as the reverse of grammaticalization.¹⁹

However, although grammaticalization and lexicalization can be seen as related processes, they do not necessarily imply opposing directions in the cline of grammaticalization. Lexicalization doesn’t entail the change from a more grammatical unit to a less grammatical one—that process is known as degrammaticalization (See Norde). Lexicalization proceeds from syntax towards the lexicon in the sense that a ‘syntactically-determined word or phrase’ (Moreno Cabrera), that is, a word or phrase realizing a particular function, enters the lexical inventory. Thus, from a historical perspective,²⁰ lexicalization implies “‘adoption into the lexicon’ or ‘falling outside the productive rules of grammar’” (Brinton and Traugott 18).

Lehmann (15) characterizes the main difference between the two processes:

Both are reduction processes (cf. Lehmann 1989), but in a different sense. Grammaticalization reduces the autonomy of a unit, shifting it to a lower, more strictly regulated grammatical level [...]. Lexicalization reduces the inner structure of a unit, shifting it into the inventory [...].

¹⁹ Norde (112) explains this opposition quoting Douglas Lightfoot (2005: 586):

The reasoning seems logical: if a single continuum exists which has “the lexical” at one end and “the grammatical” at the other, one could readily interpret movement along the cline toward “the grammatical” as grammaticalization, and toward “the lexical” as lexicalization.

²⁰ Brinton and Traugott (18) offer a summary of the main studies of lexicalization from a synchronic perspective, according to which the term is used for “the coding of conceptual categories.”



The development of English complex (subordinating) conjunctions, if they are claimed to constitute lexical elements, should not be analyzed as a case of grammaticalization, but of lexicalization, characterized by the following features:

- (i) Lexicalization implies a historical change, in Moreno Cabrera's (214) terms "a process creating lexical items out of syntactic units". "It is not simply a process of adoption or incorporation of unchanged elements into the inventory," as pointed out by Brinton and Traugott (96).
- (ii) Thus, lexicalization proceeds from syntax/grammar to the lexicon. It is what Moreno Cabrera calls a lexicotelic process as opposed to a syntactotelic process that characterizes grammaticalization.
- (iii) The input of lexicalization is a complex construction, a "syntactically-determined word or phrase" (Moreno Cabrera), not a simple unit.
- (iv) The output of lexicalization is a lexical/content unit. "It feeds the lexicon and bleeds the syntax" (Moreno Cabrera 218)
- (v) Lexicalization entails a loss in compositionality,²¹ so it involves "a holistic access to a unit, a renunciation of its internal analysis" (Lehmann)
- (vi) Lexicalization is a gradual process.
- (vii) Lexicalization involves fusion and sometimes coalescence (reduction of phonological sequences).

In conclusion, it is claimed that grammaticalization and lexicalization are better distinguished in terms of the general consideration about what constitutes part of the lexicon and what constitutes a structure in the grammar.

4. ANALYSIS OF ENGLISH 'COMPLEX' (SUBORDINATING) CONJUNCTIONS

The development of two different types of conjunctions will be considered here:

- 4.1. Multi-word forms (prep + noun): *in the event, on the basis, on the grounds, to the effect / for all, for fear, on condition / in case, in order, in two minds.* (Huddleston and Pullum 623)²²

²¹ Brinton and Traugott talk about demotivation, idiomatization or loss of semantic compositionality. They argue that "The new meanings are often highly idiosyncratic, sometimes more abstract [...], sometimes more specific [...]" (97). Although when commenting on the strong parallels between grammaticalization and lexicalization they claim that "In the case of lexicalization loss of compositionality tends to lead to increase in semantic specificity, contentfulness, and idiosyncrasy, whereas in the case of grammaticalization it leads to more general and abstract grammatical meaning" (105).

²² Other multi-word forms are mentioned by Biber, Johansson, Leech, Conrad and Finegan: *directly (that), immediately (that), now (that), the moment (that).*



- 4.2. Deverbal forms: from –ing participle —*assuming, considering, excepting, given, granting, notwithstanding, seeing, supposing, providing*; from past participle —*provided, granted*.

4.1. MUTLI-WORD CONJUNCTIONS

Multi-word conjunctions constitute complex units consisting of a preposition followed by a noun (sometimes preceded by *the* or *a*). Since, as will be shown below, not all complex conjunctions exhibit the same degree of fossilization, it is sometimes difficult to distinguish between complex conjunctions and free syntactic combinations.

The criterion to be used is to determine whether the nominal part of a complex conjunction has lost its nominal features and is thus part of a fixed construction which functions as a subordinating conjunction. This criterion is adopted by Huddleston (*Introduction*), when establishing a distinction between complex prepositions and structures of the type ‘preposition + noun + preposition’. He points out: “we may think of complex prepositions as arising historically through the ‘lexicalisation’ –the fusion into a single lexical item– of the first words of some productive construction” (342). Pérez Quintero (*Adverbial* 20-21) proposes to adapt the tests presented by Huddleston (*Introduction*) and by Quirk, Greenbaum, Leech and Svartvik in order to identify complex prepositions for identifying multi-word conjunctions.

- (i) A complex conjunction cannot realize the syntactic functions typically associated with a noun phrase, such as subject or complement. If *in case* (complex conjunction) is compared with *the time (that)* (noun phrase), it can be seen that the former structure cannot function as subject but the latter can (e.g. *The time to be ready is four o'clock*).
- (ii) Complex conjunctions do not allow the same variety of determiners as the head of a noun phrase does. The conjunction *in case* does not allow a great variety of modifiers while preserving its conditional value. It can be quantified by *most of*, in which case a nominal construction is obtained which has a different meaning (e.g. *in most of the cases* – temporal sense). The head of the nominal construction *the time* can be quantified as in *most of the time*, while at the same time allowing a greater variety of modifiers, such as *every time (that), such time as, the very first time*. In all these cases the basic meaning of the construction is maintained.
- (iii) The nominal part of a complex conjunction does not allow variation in number. *In case* cannot be substituted by *in cases*, while the noun phrase *the day* has alternative plural expressions, such as *since the days (when)*.
- (iv) The preposition that introduces a complex conjunction doesn't allow variation (e.g. *in case, on condition*, but not **on case, *in condition*). However, free constructions show a greater diversity of introductory elements (e.g. *every time, until such time, by the time, since the last time, before the time, throughout the time (that), from the very first time*).

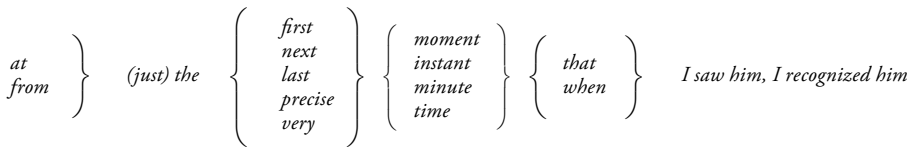


- (v) A complex conjunction does not allow the incorporation of modifiers of the nominal term (e.g. **in good case*), while the presence of a modifier is frequently part of a noun phrase (e.g. *the last time*).

Thus, there are behavioral properties that allow us to distinguish between multi-word conjunction and free combinations of words that resemble them. The most typical cases of ambiguity are the following ones:

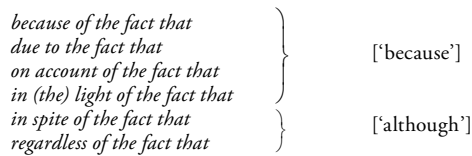
- (i) These complex conjunctions are very similar to temporal expressions consisting of a noun (expressing time) + relative clause. E.g. *the moment (that), every time (that), during the period when, until such time as, since the days that*.

These free expressions allow the range of structural variations or syntactic manipulation (additions, omissions, and replacements) associated with free syntactic combinations (Quirk, Greenbaum, Leech and Svartvik 1002).



In FDG these expressions of time + relative clauses are analyzed as modifiers of a Time-designating lexeme (Hengeveld and Mackenzie 261). They distinguish this construction from a similar one in which the noun takes a subordinate clause as its argument (e.g. *The time that he arrived was fairly late*), in this case analyzed as the argument of a temporal noun.

- (ii) Quirk, Greenbaum, Leech and Svartvik (1002) mention the case of prepositional phrases ending in *the fact that* and that express relationships of reason and condition. Again this type of free construction allows structural variation, both of the preposition and of the head of the noun phrase (Quirk, Greenbaum, Leech and Svartvik 1002):



Pullum and Huddleston (623) mention that the main different between expressions with *that fact* (e.g. *This follows [from the fact that they contested the will]*) and *in the event* is that in the latter case the argument is not licensed



by the head noun but by the sequence. In this sense, *in the event*, as well as *on the basis*, *on the ground*, and *to the effect*, are idiomatic.²³

- (12) a. [In the event that something happens to me] give them this letter.
b. *[The event that something happens to me] would shock my family.

Among multi-word conjunctions, Pullum and Huddleston (623) distinguish three different types of expressions:

- (i) Expressions (e.g. *in the event*, *on the basis*, *on the grounds*, *to the effect*) that are followed by clauses, although the nouns they contain (e.g. *basis*, *event*, *grounds*) do not normally take those arguments. Examples taken from Pullum and Huddleston (623).

- (13) a. She declined, [on the basis that she was too tired].
b. *[The basis that she was too tired] was unsatisfactory.

Although the fact that the clause could be substituted by a demonstrative shows some evidence that it is syntactically dependent of the preceding noun.

- (14) I can't believe she declined [on that basis].

- (ii) Expressions (e.g. *for all*, *for fear*, *on condition*) that contain nouns (e.g. *fear*, *condition*) that can take arguments on their own, but nevertheless are better analyzed as complex heads taking the argument. *For fear* doesn't allow substitution of the clause for a demonstrative and in the case of *on condition*, Pullum and Huddleston (624) argue that the absence of a determiner supports its analysis as the head.

- (15) a. She didn't reply, [for fear she might offend him].
b. *I didn't reply for that fear either.

- (iii) Expressions (e.g. *in case*, *in order*, *in two minds*) containing nouns which without the preposition don't have the same meaning and do not accept clauses as their arguments. Examples taken from Pullum and Huddleston (624)

- (16) a. You'd better take an umbrella [in case it rains]
b. *Consider the case it rains...

²³ For Quirk, Greenbaum, Leech and Svartvik (1003) constructions with *in the event that*, *on the grounds that*, *in the sense that*, are similar to those ending in *the fact that*.



What characterizes these multi-word formations is that to a greater or lesser extent, the noun loses properties typical of the nominal category.

4.2. DEVERBAL CONJUNCTIONS

Deverbal conjunctions typically developed from converbs, non-finite verb forms which are always or very often used with an adverbial function.²⁴

One of the main features that characterizes the verbal forms that lexicalize into conjunctions is that they have lost their verbal features, as can be seen by the fact that although they do not contain an explicit subject, they do not require identification with the subject of the main clause (Quirk, Greenbaum, Leech and Svartvik). Thus, for example, in *Covered with confusion, they apologized abjectly*, the past participle ending in *-ed* is a verbal form which requires identification of the subject with that of the main clause, while *Provided that the film entertains, few people care about its merits*, identification of a subject is not necessary. Similarly, König and Kortmann point out some features which indicate that a verb has been 'reanalyzed' as a preposition/conjunction:²⁵ change in the word order, change of grammatical relations and phonological and morphological criteria. These features, as well as some additional ones, are analyzed by Kortmann and König (686), who state:

Many of the changes leading to a recategorization of verbs as prepositions can be seen as a loss of certain properties: loss of semantic, phonological, and morphological substance, a loss of the ability to inflect for case, number and gender, a loss for agreement with a subject, a loss of the ability to be marked for tense and aspect.

Nevertheless, Kortmann points out that not all participles which are used as conjunctions show the same degree of lexicalization, and mentions two parameters which prove this:

(i) Firstly, in some cases the identification of an implicit subject is established with an indefinite pronoun or with the speaker.

(16) *...as if I couldn't figure out for myself that things had better be just so, considering who's coming.* (Kortmann 51)

²⁴ Nedjalkov distinguishes between *contextual converbs*, which are characterized by their being vague or polysemic forms from the semantic point of view, and *specialized converbs*, verb forms characterized by their expressing a specific semantic value.

²⁵ Kortmann and König (673) state that since sometimes it is difficult to distinguish prepositions from conjunctions, they will "include deverbal conjunctions into our discussion without committing ourselves to the view that they are a garden variety of prepositions."



(ii) Secondly, the participle can appear in contexts in which it still functions as a verbal form.

(17) *The new airship...could keep station above the fleet wherever the US chose to go, providing early warning of aircraft or missile attack.* (Kortmann 52)

As in the case of multi-word conjunctions, deverbal conjunctions show a certain degree of gradience concerning the preservation of certain properties characteristic of verbs. Quirk, Greenbaum, Leech and Svartvik (1002-1003) point out that some of them (e.g. *supposing*, *assuming*) can be expanded by adverbials, whereas others do not allow such expansion:

- (18) a. *supposing/ assuming for the sake of argument/ as a result of your advice that*
b. **seeing/*provided for the sake of the argument/as a result of your advice that*

However, they claim that the main feature characterizing these conjunctions is that they have developed a meaning different from the participles and that they don't require subject identification.

Concerning the pathways of semantic developments, Kortmann and König state that deverbal prepositions (what can be extended to deverbal conjunctions) developed mainly in those semantic domains for which there is no or hardly any central preposition. They argue that deverbal prepositions, and could be added deverbal conjunctions, "serve primarily more specialized communicative, discourse-structuring functions and thus follow much more clearly the path from 'propositional' to 'textual' to 'expressive' 'meaning'" (692). The formation of new lexemes could thus be explained as a need on the part of the user to express complex relations in a clear and explicit way.²⁶

5. IMPLICATIONS FOR FDG

As was mentioned before, within FDG (Hengeveld and Wanders), a distinction is established between lexical and grammatical conjunctions, both categories distinguishing simple and complex units. In their analysis, Hengeveld and Wanders

²⁶ Norde (2009) questions the existence of 'allegedly irreversible changes' by pointing out that the development of conjunctions in the domain of semantic change illustrates a shift not only from temporal to either causal or conditional, but also from causal to temporal (in German). She considers that pathways should be understood more as tendencies than as absolute claims. She concludes "The above examples unequivocally show that there exist no universal (i.e. exceptionless) semantic pathways of change, yet the number of counterexamples appears quite limited at present. Nevertheless, some counterevidence *does* exist, but attempts have been made to dismiss even this" (71).



posit the existence of a systematic relation between the type of conjunction (lexical / grammatical) and the hierarchical level on which they operate, that is, the hierarchical layer of the unit related by means of that conjunction. According to them, lexical conjunctions operate only on the representational level, whereas grammatical conjunctions function at both the representational and interpersonal level.

The representations proposed for each of the types distinguished are offered in Section 5.1, for the representational level, and 5.2, for the interpersonal.

5.1. REPRESENTATIONAL LEVEL

At the *representational level*, adverbial clauses constitute optional lexical adpositions to a main clause and are, therefore, analyzed as modifiers. *Grammatical* conjunctions are represented by means of a function (e.g. *until* is represented by the function Allative) assigned to the unit designated by the adverbial clause.

- (19) a. *She stayed home **until** the meeting began.*
 b. $(e_i: [she\ stayed\ home]) (e_i: (t_i: (t_j: (e_j: [the\ meeting\ began]) (e_j: (t_j))_{All} (t_i))) (e_i))$

When the adverbial clause is introduced by a *simple lexical* conjunctions (e.g. *before*), this conjunction is provided in underlying representation with the variable **f**, indicating that it has the status of a lexical element designating a two-place relation between the holder of the property (\emptyset) and the entity in relation to which the property is defined (Ref). A sentence like the one in (20a) would be represented as (20b), where the adverbial clause is said to designate a temporal region (t_i), defined in relation to the temporal region designated by *she left* (t_j).

- (20) a. *She called him **before** she left.*
 b. $(e_i: [she\ called\ him]) (e_i: (t_i: (f_i: **before**_{Conj} (f_i) (t_i)\emptyset (t_j: (e_j: [she\ left]) (e_j) (t_j))_{Ref} (e_i))$

Similarly, *complex lexical* conjunctions²⁷ (e.g. *in the event*) are introduced into the underlying representation, in which the nominal part (*event*) functions as

²⁷ Among complex lexical conjunctions Hengeveld and Wanders (219) include constructions of the type *The moment (that) he arrived in London it started raining*, in which “the *that*-clause modifies, i.e. further specifies, the head *moment* in terms of an event taking place. It is therefore similar to a relative clause.” These constructions are not considered here, since they do not constitute cases of adverbial subordination but of embedded clauses functioning as modifiers within a noun phrase. It is even claimed that *moment* is not treated as a conjunction but as a noun. Cf. Hengeveld and Mackenzie (261) for an account of the difference between constructions of the type noun + modifier (e.g. *The time at which he arrived was fairly late*) and noun + argument (e.g. *The time that he arrived was fairly late*).



the head (**f**) of an event description (e_j) and is further specified by another event description (e_k). The preposition *in* is represented by the Locative semantic function, which in this example will be interpreted metaphorically and is, therefore, considered grammatical.²⁸ Note that in this case, the event description (e_k) is not considered an argument of the conjunction but a modifier.

- (21) a. *Smallpox would be rapidly controlled in the event that it were introduced into Australia.*
 b. (e_i : [smallpox would be rapidly controlled] (e_i): (f_i : **event**_N (f_i))
 (e_j): (e_k : [smallpox are introduced into Australia] (e_k)) (e_j))_{Loc} (e_i)

In the light of the present study, several weaknesses could be attributed to the analysis just shown:

- (i) As it has been claimed that conjunctions have semantic content and that there are no sound arguments to establish a distinction between lexical and grammatical, all conjunctions should be represented as lexical heads. This analysis will allow including subordinating conjunctions within Mackenzie's ("Adverbs") conflating category Ad, together with adpositions and adverbs.
 (ii) Lexical conjunctions are analyzed by Hengeveld and Wanders as two-place predicates, which establish a relation between the bearer of the property (\emptyset) and the entity in relation to which the property is stated (Ref). But isn't the bearer of the property the predicate itself? Then, why assigning a function to the temporal region designated by the predicate as in (19b)? It is claimed here that conjunctions should be analyzed as one-place predicates, taking a single argument with the semantic function Reference. In an adverbial clause such as *before she left*, the conjunction is a lexical unit that designates a temporal relation between the event described in the main clause that the adverbial clause modifies and the event described in the clause that functions as its argument. Example (20b) would be represented as in (22):

- (22) (e_i : [she called him] (e_i): (t_i : (f_i : **before**_{Conj} (f_i)) (t_i) (e_j : [she left] (e_j))_{Ref})
 (e_i))

- (iii) In the representation of complex lexical conjunctions such as *in the event* offered by Hengeveld and Wanders, only the nominal part of this complex conjunction was inserted as the head. The preposition was considered grammatical, because of its metaphorical interpretation, and, therefore, analyzed in terms of a semantic function. I agree with Keizer ("English Prepositions" 246) in considering that the exact metaphorical interpretation is triggered

²⁸ Note that in its basic locative use, *in* is considered a lexical preposition (Hengeveld and Wanders 220).



- by the context and not by assigning a semantic function. Therefore, the preposition of complex conjunctions would be analyzed as a lexical element.²⁹
- (iv) The clause following the conjunction is analyzed as a modifier. However, as posited by Hengeveld and Mackenzie, many nouns can be followed by modifiers (relative clauses) and by arguments, which enter into a configurational frame with the head. Constructions that lexicalize are of the latter type, since it is the argument of the noun what becomes the argument of the new lexical conjunction.

5.2. INTERPERSONAL LEVEL

At the *interpersonal level*, adverbial clauses modify interpersonal rather than representational units and, therefore, do not admit any type of semantic modification. According to Hengeveld and Wanders, this feature accounts for the grammatical status of adverbial conjunctions operating on the interpersonal level. This position is consistent with FDG conception of dependence relations at the interpersonal level. Hengeveld and Mackenzie (53) claim that dependence between Discourse Acts should be represented in underlying structure by means of a rhetorical function (i.e. Motivation, Concession, Orientation, and Correction). However, as has been pointed out in relation to the analysis of adpositions (Cf. Pérez Quintero, “Adpositions”; Keizer, “English Prepositions”), this would imply an unequivocal relationship between the different functions and the units realizing them, when this is obviously not the case, since the same function can be expressed by different conjunctions and the same conjunction can express different functions. Thus, two different problems arise: (i) How to trigger the right conjunction from the general function? and (ii) how to represent all the possible relations by different semantic functions.

Special attention should be paid to the analysis of constructions introduced by deverbal forms (e.g. *considering (that)*, *assuming (that)*). Expressions of this type, which do admit modification although they function at the interpersonal level, what would seem to contradict Hengeveld and Wanders’ claim that conjunctions at this level are grammatical since they cannot be modified, are surprisingly not considered complex conjunctions. Instead they argue that these participial forms constitute an argumentative chaining, in which the verbs remain lexical and function as the head of a clause within which they can be modified. In underlying

²⁹ Keizer (“English Prepositions” 247) supports this position in the following terms:

Syntactic evidence for analyzing the prepositions in these constructions as predicates is scarce. Semantically, however, an analysis of these prepositions as predicates is far more plausible. First of all, we have seen that they are not meaningless elements; quite often the relation denoted is directly linked to the primary sense of the preposition. At the same time it will be clear that where the prepositions express more abstract relations, it will be difficult (and cumbersome) to have all these relations represented by different semantic functions.



representation they fill an illocutionary slot, as performatives verbs do in FDG. These participial forms, however, can be subject to a process of grammaticalization through which they become complex grammatical conjunctions functioning at the interpersonal level.

However, by considering these expressions complex conjunctions resulting from the lexicalization of a present/past participle, it is possible: (i) To account for the fact that they admit modification; (ii) Avoid inserting a verbal form in the Illocutionary slot as an intermediate solution until the participial form undergoes a process of grammaticalization through which they become complex grammatical conjunctions functioning at the interpersonal level.

As Lehmann points out, it can be concluded that:

conjunctions come about not by grammaticalization, but by lexicalization. Once they have come into existence, they may then be grammaticalized. Lexical change, however, is much more ephemeral than grammatical change. From among all the new prepositions and conjunctions, only a fraction is grammaticalized. All the others are abandoned and replaced by other neologisms. Those numerous complex prepositions and conjunctions which constantly come and do not indicate incomplete grammaticalization processes, but are simply products of lexical change.

6. CONCLUSIONS

- (i) Conjunctions should be conflated together with adpositions in a single category. This solution will simplify the load on the lexicon, since a single entry will be necessary to account for all uses.
- (ii) Conjunctions belong to a lexical class, although some grammatical cases can be pointed out, namely *whether*, *if*, *that*, that are simple markers of subordination and, therefore, do not function as heads (Pullum and Huddleston 600).
- (iii) New conjunctions arise from a process of lexicalization.
- (iv) This process of lexicalization implies 'syntactic units' functioning as adverbials, mainly prepositional phrases and converbs.
- (v) Different degrees of lexicalization can be observed, even though in all cases the meaning of the expression is different from the meaning of the isolated elements.
- (vi) In FDG, complex conjunctions should be represented as lexemes with an argument (Ref). As lexemes they express the different semantic categories recognized.
- (vii) In the case of Condition or other relations for which no semantic category is recognized, metaphorical interpretations will arise depending on parameters such as factuality / non-factuality and presupposition / non-presupposition that have been said to play a role in the representation of adverbial subordination (Pérez Quintero, *Adverbial*).



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