Secondary grammaticalization and the English adverbial –*ly* suffix

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Abstract

This paper discusses the secondary grammaticalization of the English adverbial *-ly* suffix and makes claims about the concept of secondary grammaticalization. Secondary grammaticalization is defined as the development of a new grammatical function in an already grammatical element. It is shown that the development of the *-ly* suffix involves a number of the processes which are associated with grammaticalization, e.g. paradigmatization, specialization, obligatorification, subjectification, layering and persistence. However, none of these processes seem to be exclusive to secondary grammaticalization, as the process is defined here. It is argued that the concept of grammaticalization should be redefined, and some possible definitions are suggested. It is also suggested that future studies should divide grammaticalization processes into types according to the nature of the target element, as suggested by Kranich (this issue). Such an approach may perhaps uncover categorical differences between different types of grammaticalization processes.

Another important claim is that the concept of obligatoriness should include both language internal obligatoriness and communicative obligatoriness, where the latter also includes socially determined obligatoriness. Further, the concept of paradigmaticity should include the opposition of social variants.

1 Introduction: aims and organization

In this article I discuss the concept of secondary grammaticalization, in search of common and defining properties. My discussion is based on a case study of the English adverbial *-ly* suffix. I explore the various developments that have affected the suffix after its initial grammaticalization and compare my findings with other findings and claims in this field. I address the following questions:

(1) What are the defining features of secondary grammaticalization? How can secondary grammaticalization be distinguished from primary grammaticalization?

(2) Which types of changes can be described using the notion of secondary grammaticalization?

(3) What is the relation between secondary grammaticalization and other processes that have been associated with grammaticalization, e.g. subjectification and pragmaticalization?

The article is organized as follows. Section 2 gives some background to the concepts of primary and secondary grammaticalization, subjectification, and pragmaticalization. Section 3 describes the secondary grammaticalization of the adverbial *-ly* suffix, relating it to the concepts introduced in section 2, while section 4 sums up the previous discussion, focusing on the properties of secondary grammaticalization and the way forward.

2 Grammaticalization: definitions and concepts

Section 2.1 briefly introduces the concept of grammaticalization, including the division into primary and secondary grammaticalization, while section 2.2 discusses various processes which have been said to characterize grammaticalization phenomena.

2.1 Grammaticalization and the definition of grammatical meaning

The term 'grammaticalization' goes back to Meillet (1912: 131, 133) and is traditionally understood as a process whereby a lexical item is reanalysed as a grammatical morpheme or

construction. This syntactic reanalysis is accompanied by a semantic reinterpretation of a very specific, lexical meaning into a more general, grammatical one. The relevant process is referred to as semantic bleaching, erosion, or reduction, or as desemanticization etc. (Heine 2003: 579).

The basic definition of grammaticalization as the transfer of an element from the lexical to the grammatical sphere may seem clear. However, as there is no consensus about what counts as 'grammar' or 'grammatical', it is anything but clear which changes should be counted as instances of grammaticalization. This question must, of course, be clarified before one can have a proper discussion about the characteristics of grammaticalization. In this article, I adopt the comprehensive definition of grammar proposed by Diewald (2010, 2011). Diewald argues that what characterizes grammatical elements is that they are 'relational', i.e. they point to something outside themselves. According to Diewald, 'it is possible to distil an abstract feature which is the common denominator of grammatical meaning: the existence of a basic relational structure, which may be applied to different pointing fields, thus achieving deictic, anaphoric and other connective relations' (2011: 371; cf. also Diewald 2010).[1] Thus, a pronoun points to a noun phrase or clause in the discourse, or to an object which is not specifically mentioned in the discourse, but which is implicit. Conjunctions and conjuncts point back to a previously mentioned proposition, and the discourse and grammatical function of modal particles – to mark a turn as non-initial – is very similar (Diewald 2011: 378). Diewald's view of grammar is in line with the view expressed by Traugott, who sees grammar as 'structuring communicative as well as cognitive aspects of language' (Traugott 2003a: 626; cf. also Traugott 1982).

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[1] A similar idea is expressed by Bühler (2012), who argues that lexical elements name, while grammatical elements point. Pronouns, definite articles, demonstratives, conjunctions and conjunctive adverbs all have a pointing function and are therefore grammatical items. They are thus essentially deictic or anaphoric. A similar analysis is proposed by Boye & Harder (2007, 2009, 2012), who claim that lexical elements are characterized by 'primariness' and 'addressability', while grammatical elements involve 'non-addressibility' and 'coded secondariness'.

When grammatical meanings are defined as systematically encoded relational meanings, it follows that grammaticalization involves the development of such meanings. Diewald argues that the development of tense and the development of modal particles are similar: both link the linguistic level to the communicative level: 'The only difference between them is their respective formal realization and their specific semantic/functional domain' (2011: 382; cf. also Diewald 2010). Diewald terms the development of discourse markers 'pragmaticalization' and argues that this process is simply a subtype of grammaticalization which involves elements belonging to a different domain than what is traditionally counted as grammar, such as tense or number marking (2011: 384; cf. also Barth & Couper-Kuhlen 2002: 357 and Lima 2002).

2.2 Primary vs. secondary grammaticalization

The grammaticalization of a construction need not stop with its initial grammaticalization: grammaticalized elements may continue to develop. Kuryłowicz (1965: 52) therefore argues that grammaticalization consists in 'the increase of the range of a morpheme advancing from a lexical to a grammatical or from less grammatical to a more grammatical status'.[2] Givón (1991) refers to the development from lexical to grammatical as 'primary' grammaticalization and to the change from less to more grammatical as 'secondary' grammaticalization. The concept of secondary grammaticalization is, however, not very well understood. One main problem is what it means to develop 'a more grammatical status'. There are basically two different approaches to this question, one focusing on morpho-syntax, the other taking semantic-pragmatic factors into account.

The traditional, morpho-syntactic approach conceptualizes the development towards a more grammatical status as movement along a grammaticalization cline such as the following:

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[2] In the same vein, Heine et al. (1991: 2) define grammaticalization as the process ' where a lexical unit or structure assumes a grammatical function, or where a grammatical unit assumes a more grammatical function'.

<div style="border:1px solid black; padding:10px;">

lexical → derivational → inflectional → free grammatical → syntactic

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Figure 1: The grammaticalization of suffixes (Bybee 1985: 12)

Here a lexical element is first grammaticalized into a derivational affix in a process of primary grammaticalization. This derivational affix may subsequently develop into an inflectional affix in a process of secondary grammaticalization (cf. also Kuryłowicz 1965: 52; Heine & Reh 1984: 15; Lehmann 1985: 304). As we will see below, such a development has been proposed for the adverbial *-ly* suffix.

However, a purely morpho-syntactic approach limits grammaticalization to a question of syntactic bonding, and it has been argued that this approach is not well suited for non-inflected languages (Bisang this issue, Breban this issue). Also, most languages have examples of words that start out as lexical words and develop into grammatical words, i.e. they are shifted into the grammatical domain but without losing their status as words. Hence, grammatical status does not presuppose syntactic bonding (Traugott 2001: 11). A grammatical word may also continue to develop another grammatical function. As noted by Traugott (2001: 3), this begs the question how we can tell whether the new function is 'more grammatical' than the previous one; for example, '[i]s a relativizer more or less grammatical than a complementizer introducing an argument?'

Hopper & Traugott (2003: 1) define grammaticalization as 'the process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions'. Hence, secondary grammaticalization involves the development of new functions in an already grammatical element. In the same vein, Norde & Beijering (2013) conclude that the essence of secondary grammaticalization is categorical reanalysis from a minor to another minor category accompanied by semantic reinterpretation of relational meanings. This is the

approach that will be adopted here. This 'quantitative' definition seems easier to handle than a 'qualitative' one, i.e. one which has to grapple with the question of which properties of grammatical items should be counted as more grammatical than others.

2.3 Processes associated with grammaticalization

Grammaticalization is a complex phenomenon, and the list of processes which have been claimed to characterize it is long. The list below shows processes which are all relevant to the grammaticalization of the *-ly* suffix, and which will be commented on to varying degrees below. (The list is based on Traugott 1989; Hopper 1991; Lehmann 1995/2002; Heine 2003: 579–580, 600, note 8.)

a) *paradigmatization*: the tendency for grammaticalized forms to be arranged into paradigms

b) *obligatorification*: the tendency for optional forms to become obligatory

c) *condensation* (*phonological reduction*): the shortening of forms

d) *extension*: the spread of a linguistic expression to new contexts

e) *persistence*: the fact that traces of the original meaning remain, which may constrain the use of the grammaticalized construction

f) *specialization*: the increased preference for a specific form within a functional domain

g) *divergence*: the independent development of the source and target elements

h) *de-categorialization*: the loss of the source element's morpho-syntactic properties in the new grammatical element

i) *layering*: the existence of more than one technique to serve similar or near-identical functions

j) *subjectification:* increased grounding in speaker perspective over time

As we will see, the processes of extension, persistence, specialization, obligatorification, paradigmatization, and subjectification figure prominently in the secondary grammaticalization of the adverbial *-ly* suffix. Of these processes, the latter three are fairly

complex processes, and they will therefore be discussed in some detail in the next few sections.

2.3.1 Paradigmatization

Paradigmatization involves the development of – or an increase in – paradigmaticity (cf. Lehmann 1995/2002). Paradigmaticity means that a lexical element forms part of an oppositional pair or set. Diewald gives the following explanation of the concept and its relation to grammaticalization:

> … a grammatical category per definition consists of a paradigmatic opposition between at least two elements. One of them (typically the newly grammaticalizing one) constitutes the formally and notionally marked element which is cast in opposition to the formally and notionally unmarked zero element... Therefore, if any form or construction is grammaticalized then, by definition, it builds an oppositional pair with another element and, in virtue of this, is a member of a paradigm. (2011: 367)

According to Halliday (1961: 247), the addition of a new term to a paradigm changes the meaning of the other member(s) as the meanings of all members are defined in relation to each other. When we think about paradigms, what comes to mind is typically a paradigm of verb forms, case forms etc., i.e. patterns which are learnt by rote and which are conceived of as 'grammar proper'. However, as pointed out by Diewald (2011), also modal particles are paradigmatic in nature in the sense that they are in complementary distribution with clauses which are not modally marked. For example, the sentences *Kommst du denn mit?* and *Kommst du mit?* clearly express different meanings and form a paradigmatic opposition (2011: 378–379). Diewald further argues that the whole class of modal particles in German shows a high degree of paradigmatic organization: each of the particles has a specific meaning, and the communicative needs of one situation necessitates the use of one particle and excludes the use of another (2011: 379–380). As we will see in section 3, the notion of

paradigmaticity is crucial in a discussion of the adverbial *-ly* suffix. Having grammaticalized into an adverbial suffix, *-ly* adverbs entered into a paradigmatic relation with both adjectives and zero-derived adverbs.

2.3.2 Obligatorification

Obligatorification means that an element which used to be optional is becoming obligatory. Diewald gives the following description of the traditional view of obligatoriness:

> Obligatoriness, on the other hand, refers to the fact that if there is a paradigm encompassing a set of oppositive values and if these values are to be addressed, then a choice has to be made between its members, and — no matter whether there is a zero marked element or not — there is no way of omitting this information. (2011: 367)

However, it has been pointed out that obligatoriness is not an absolute criterion, but a relative one. Thus, Lehmann (1995/2002: 12) notes that a grammatical construction 'may be obligatory in one context, optional in another and impossible in a third context'.

Diewald agrees that the traditional understanding of obligatoriness has been too one-dimensional and needs to be redefined. She distinguishes between 'language internal obligatoriness' and 'communicative obligatoriness' (2011: 368). The former is totally governed by 'formal triggers', i.e. features of the grammatical system. Examples are concord and case selection. The latter, by contrast, refers to the fact that a specific paradigmatic category must be realized, but that the choice between the members of the category is determined by the communicative intentions of the speaker rather than by the grammar. Voice marking in German is given as an example. Here the speaker must choose between the active, the *werden*-passive and the dative passive, but which of them is chosen to a large extent depends on the communicative intentions of the speaker. While language internal obligatoriness may be captured in the conditional sentence 'If form x, then form y', communicative obligatoriness is captured by 'If intention x, then form y'. Like voice

marking, discourse markers exhibit communicative obligatoriness but not language internal obligatoriness. Communicative obligatoriness will in this article be interpreted as including socially determined obligatoriness, i.e. the need to use a form because social aspects of the situation require it (cf. section 3.3).

In section 3, I discuss the grammaticalization of the *-ly* suffix in relation to both definitions of obligatoriness. Scholars discussing the obligatorification of the adverbial *-ly* suffix normally discuss it in terms of language internal obligatoriness, but I will argue that also communicative obligatoriness needs to be considered in this case.

2.3.3 Subjectification

Subjectification involves increased grounding in speaker perspective over time (Traugott 1989: 35), i.e. the development of grammatical means of expressing speaker perspective. Earlier subjectification was typically associated with secondary grammaticalization. Thus, Traugott (1995: 31) suggests that grammatical elements typically develop out of propositional elements and gain a function at the textual level before they become strictly subjective, or 'expressive' (cf. also Traugott 1982, 1989). A well-known example is *while*, which developed out of a temporal noun expression, viz. Old English *þa hwile þe* 'at the time that', and into a time conjunct, before it developed into a concessive conjunct.[3] According to Traugott (1995: 42), 'the overall shift of *while* is from reference to a relatively concrete state of affairs (a particular time) to expression of the speaker's assessment of the relevance of simultaneity in describing events, to assessment of contrast and unexpected relations between propositions' (1995: 42). A similar example of subjectification in secondary grammaticalization occurred when English adverbial *-ing* clauses, which at first merely expressed an additional or accompanying circumstance, came to express concessive, causal

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[3] In this article, reference is made to the following periods: Old English: up to 1100; Middle English: 1100–1500; late Middle English: 1300–1500; Early Modern English: 1500–1700; Late Modern English: 1700–1900, and Present-day English: from 1900 onwards.

and conditional meanings (Killie & Swan 2009). Another example is the development of English epistemic modals out of root/deontic modals (Traugott 1989; Mortelmans et al. 2009).

Recently a number of scholars (e.g. Norde 2009, Kranich 2010, Traugott 2010) have suggested that subjectification first and foremost takes place in the early stages of grammaticalization, in the pragmatic strengthening processes which make grammaticalization possible in the first place:

> Subjectification is more likely to occur in primary grammaticalization (the shift from lexical/constructional to grammatical) than in secondary grammaticalization (the development of already grammatical material into more grammatical material). This is because primary grammaticalization often requires prior strengthening of pragmatic inferences that arise in very specific linguistics contexts prior to their semanticization and reanalysis as grammatical elements. Further grammaticalization, however, often involves development into automatized structures (especially in the case of inflections). The fewer the options become, the less likely subjectification will be. This can be regarded as part of the larger constraint, noted in Dahl (2004: 84) that none of 'the usual Gricean principles' are operative if a morpheme is truly obligatory. (Traugott 2010: 8)

What is presumably the best-known example of grammaticalization − *be going to* − is an example of subjectification in primary grammaticalization. Another example was provided by Degand (2013), who argued that the French *vu que* 'seeing that' was subjective from the very beginning of its existence as a grammatical marker. The same goes for many discourse markers/particles (cf. Diewald 2011).[4]

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[4] The related concepts of intersubjectivity and intersubjectification have been claimed to be relevant to the development of modal/evidential adverbs such as *obviously*, *certainly* and *clearly* (Nuyts 2001, Simon-Vandenbergen & Aijmer 2007, 2008; Celle 2009). However, intersubjectification in English *-ly* adverbs seems primarily to involve lexicalization rather than grammaticalization and will therefore not be discussed here.

As we will see below, when it comes to the grammaticalization of the adverbial *-ly* suffix, subjectification is first and foremost associated with the secondary grammaticalization of the suffix.

3 The grammaticalization of the *–ly* suffix

In this section I first give a brief account of the primary grammaticalization of the *-ly* suffix. I then go into detail about the secondary grammaticalization of the *-ly* suffix, focusing first on individual classes of adverbs, then on some general issues, such as the questions of obligatorification and paradigmatization.

3.1 A brief summary of the primary grammaticalization of the *–ly* suffix

The English *-ly* suffix represents a well-known example of grammaticalization. Its origin is either a proto-Germanic noun meaning '(physical) body' (Kluge 1926) or 'gestalt, form, shape' (Guimier 1985) or a verbal adjective meaning 'like' (Walker 1949; for a discussion, see Killie 2007a). In proto-Germanic this noun or adjective was reanalysed as an adjectival formative. It was added to other adjectives or to nouns to form a compound adjective, as in Proto-Germanic *gôðolîko-* 'goodly' and Proto-Germanic **mannlîko-* 'manly, manlike'. According to the *Oxford English Dictionary* (*-ly*, suffix1), the meaning of the suffix was 'having the appearance or form indicated by the first element of the word'.

In Old English, adverbs were most commonly derived by way of the adverbial *-e* suffix (which was a reduced form of the Proto-Germanic instrumental suffix *-ô*). The *-e* suffix became phonologically reduced and was eventually lost. This happened in the course of the Middle English period as a result of the large-scale 'levelling process', during which unstressed syllables became phonologically reduced and were eventually left out from the pronunciation of words (and later also commonly from the spelling) (Baugh & Cable 1978: 158–159). The levelled remnants of the old *-e* adverbs are referred to as 'zero adverbs'.

It is not unproblematic to distinguish between adjectives and zero adverbs. The general practice seems to be to regard as zero adverbs forms which occur in a typical adverb function and which are known to have an *-e* adverb equivalent in Old English, e.g. forms such as *hard*, *fast* and *loud* (cf. Old English *hearde*, *fæste*, *hlude*). Other zero forms are generally treated as adjectives. This analysis should be correct in the majority of cases given that a large proportion of the English adjective stock are imports from French which were adopted into the language after *-ly* had taken over as the general adverb suffix.

Old English had a number of adjectival doublets such as *heard/heardlic* 'hard' and *beorht/beorhtlic* 'bright'.[5] Corresponding to these adjective pairs there were doublets of derived *-e* adverbs, e.g. *hearde/heardlice* and *beohrte/beohrtlice*. *-lic* adjectives became very plentiful in Old English, and at some stage *-lice*, which was later phonologically reduced to *-lic*, was reanalysed as an adverbial suffix.

In addition to phonological reduction, the grammaticalization of *-ly* as an adverbial suffix was characterized by processes such as de-categorialization, divergence (cf. Killie 2007a), layering between *-lic* and zero adverbs, paradigmatization, and persistence (cf. section 3.2.6). The particulars of the primary grammaticalization of *-lice* are discussed in Killie (2000b: 35–38, 2007a). Our focus here will be on the secondary grammaticalization of the suffix, i.e. on the functional expansion which took place in *-lice* after its reanalysis as an adverbial suffix.

Note that referring to the adoption of *-lice* as an adverbial suffix as an instance of primary grammaticalization may not be completely uncontroversial. Some would perhaps argue that we are speaking of the *secondary* grammaticalization of the *-lic* suffix from an adjectival to an adverbial suffix. I base my interpretation on the fact that the suffix seems to have been predominantly realized as *-lice* at the time of its reanalysis as an adverbial suffix

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[5] It is unclear whether the two members of such pairs differed in meaning or not, i.e. whether the *–ly* suffix had a meaning-changing function or a specific pragmatic function when applied to a lexeme which was already an adjective (see Killie 2000a for a discussion; cf. also Kim 2009).

(hence *-lice* is the only Old English form which is cited in the *Oxford English Dictionary*, cf. entry *-ly, suffix²*). The reanalysis therefore seems to have involved the adjectival *-lic* suffix + *-e*, which I take to imply that we are not speaking of a reanalysis of the adjectival suffix *per se*. However, the question whether this is an instance of primary or secondary grammaticalization is in no way critical to the conclusions made in this paper as I am going to argue that primary and secondary grammaticalization processes are not essentially different and that we should do away with the concept of secondary grammaticalization altogether since it leaves the impression that they are.

3.2 The secondary grammaticalization of adverbial *-ly*

From its primary grammaticalization as an adverbial marker, the *-ly* suffix has come to be used in a number of contexts and functions where it was not originally used. Its history is characterized by numerous extensions and shifts, specialization, obligatorification and paradigmatization. Below I give a brief survey of these developments.

3.2.1 The original adverbs: manner adverbs

It is generally assumed that the original function of *–ly* adverbs was to modify verbs. This assumption is partly based on the name of the category. Thus, Meyer-Myklestad (1967: 374) argues that '[t]he origin of the word (Fr. *adverbe*, L. *adverbium*) indicates that its basic use was that of modifying a verb only, and this must still be described as its primary function'.[6] It is also commonly held that of all verb-modifying adverbs, manner adverbs constitute the original, and therefore prototypical, adverbs (see e.g. Aitchison 1994: 106; Nevalainen 1997: 164; Swan 1997; Ravid & Shlesinger 2000: 337). Swan takes her evidence from two sets of fact. One type is the cognitive meaning of the *-ly* suffix, which, according to her, 'is essentially a dynamic, verb-specifying manner meaning 'as if, like'' (1997: 185; cf. also Dalton-Puffer 1998: 45–46). The second type of evidence is empirical, diachronic evidence.

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[6] The ultimate source of the term adverb is the Greek *epirrhema*, of which *adverb* is a direct translation (cf. Pinkster 1972: 35).

Specifically, English manner adverbs are historically prior to 'sentence adverbs' (also called 'disjuncts'; cf. Greenbaum 1969), i.e. adverbs which express the speaker's evaluation of the propositional content of a clause. (The seminal work here is Swan 1988; see the discussion below.) Furthermore, while sentence adverbs, according to Swan (1988), have been recruited from the manner category on a large scale, there seem to be no examples of the opposite development (Swan 1997: 183-184). [7] Ramat & Ricca (1994) provide cross-linguistic evidence for the diachronic priority of the manner category, arguing that '[i]n many languages, Manner de-adjectival adverbs like *frankly* can only be Predicate modifiers, ... and for languages which allow both uses, the predicative use is attested far before the sentential one' (1994: 310). Ramat & Ricca see other functions of *-ly* adverbs as 'extensions which keep the Manner semantics relatively stable and extend the modifier function to syntactic units other than the Verb Phrase' (1994: 310).

Further support for the claim that manner adverbs represent the prototypical and original adverb category in English is provided in the comprehensive empirical investigation of Middle English manner adverbs carried out by Donner (cf. Donner 1991). Here Donner claims that once *-lice* had acquired the status of adverbial suffix, it was used to derive manner adverbs (his 'modal adverbs') on a large scale:[8]

> The rise in the incidence of the suffix, as a matter of fact, hardly needs tracing at all. It does indeed enjoy a great increase in use during the course of Middle English, but not, as seems generally assumed, by gradually superseding the flat form. Instead, according to the evidence of the MED, it not only is predominant throughout the period, but was already established in that role at the very outset, so that the increase simply reflects the growing number of both new Romance adoptions introduced and of further native constructions recorded in the expanding corpus of writings extant. Adding the suffix to adjectives of whatever

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[7] In this connection it can be added that degree adverbs are also claimed to be commonly recruited from the manner category (Partington 1993; Peters 1994: 269-270).

[8] Donner's claims are further substantiated by the data presented in Nevalainen (1994b).

origin or substituting it for *-ment* or *-iter* when adopting Romance adverbs evidently constituted common practice with the general run of modal adverbs from no later than the closing decades of the twelfth century on. (Donner 1991: 2)

Thus, by the Middle English period, the *-ly* suffix was already highly productive, and when it had been adopted as an adverbial marker, the first items it was regularly attached to were manner adverbs. Apparently, this was also the category of adverbs that was first regularized (cf. section 3.3), i.e. for which *-ly* marking first came to be perceived as obligatory (Phillipps 1970: 180; Nevalainen 1994b: 144, 147). This may be further evidence of the prototypicality of the class.

3.2.2 Sentence adverbs

Following its adoption as a manner suffix in Old English, the *-ly* suffix has spread to other functions. For example, *-ly* adverbs have increasingly been used to express epistemic meaning. Hanson (1987: 137–143) claims that prior to the Middle English period, there were no adverbs such as those in (1) (cf. also Traugott 1989: 46–47).

(1)   a.   **Possibly** he also washed his face, she did not know, never having asked

him. (British National Corpus, A0R 282)

b.   You were **probably** busy working, I appreciate that. (British National Corpus, A06

908)

Swan (1984, 1988) provides a more nuanced picture, showing that Old English in fact had a few *-ly* adverbs expressing high probability (1984: 35, 1988: 90–91). However, she agrees that epistemic *-ly* adverbs – which she terms 'modal adverbs' – were not a regular feature of Old English. It was not until the Middle English period that the class really began to expand, and it was also in this period that low-probability adverbs started to occur (Swan 1988: 131, 295–299).

According to Swan, it is not only the category of modal adverbs which has developed in historical time; so has the whole category of sentence adverbs. In addition to modal

adverbs, Swan's sentence adverb category comprises the subsets subject disjuncts (exemplified in 2), evaluative adverbs (exemplified in 3), and speech act adverbs (exemplified in 4) (1988: 29ff). Common to all these categories is that they involve the speaker's evaluation of the proposition, or, in the case of subject disjuncts, of the subject on the basis of his/her actions. They are therefore subjective.

(2) a. The CO **wisely** decided not to notice this particular instance of it. (British

National Corpus, ACE 2163)

  b. **Stupidly**, the English followed us and made the same mistake. (British

National Corpus, HHW 6705)

(3) a. **Fortunately** there were no fatalities. (British National Corpus, GVY 852)

  b. **Regrettably**, their surveillance team had lost them. (British National Corpus,

FSF 3708)

(4) a. **Frankly**, it's you I worry about. (British National Corpus, BNS 1620)

  b. **Briefly**, when the fieldworker is actually interviewing the informant and

thus controlling the exchange, the style is labelled 'interview style'. (British

National Corpus, FAD 216)

While subject disjuncts were an established category in Old English, the earliest evaluative adverbs and speech act adverbs only date back to the late seventeenth century (Swan 1988; Swan & Breivik 2011: 683). In earlier English, speaker evaluation was most commonly expressed by way of clauses containing adjectives and nouns or by prepositional phrases. Some examples are given in (5) (from Swan 1988: 159).

(5) a. Hit is scondlic 'It is shameful'

  b. þæt is sarlic 'it is grievous'

  c. Hit gewearð for yfelnysse … þæt … 'It unfortunately happened… that'

    (lit: It happened with evilness… that…)

Given that English still uses structures such as those in (5) to express speaker comments, the development of sentence adverbs in *-ly* has caused layering to occur also in this domain. Swan (1988) hypothesizes that sentence adverbs in *-ly* (abbrev. SA) developed in the following manner:

> To sum up: the mechanism of SA shifts can be seen as including the presence of word-modifiers (such as intensifiers or manner adverbs) and a speaker comment concept (historically often in the form of an adjectival phrase like *It is Adj that…*). These blend in the adverbial form which become [sic] SA (or rather, the adverb usually becomes polysemous and functions both as SA and non-SA). (1988: 531–532).

Swan argues that 'a certain class of adverbs in being established as SA must stabilize in initial position' (1988: 524–525). Fischer (2007: chapter 6) offers an alternative hypothesis which also emphasizes the role played by adverb position in this process. According to her, what enabled the development of sentence adverbs (which she refers to as 'pragmatic markers') was the existence of other types of speaker-oriented structures which could occur clause-initially. For example, certain clauses containing adjuncts could give rise to sentence adverbs by becoming reduced: hence, *frankly* is, according to Fischer, a reduced version of *speaking frankly*. In addition, large-scoped adjuncts occurring in initial position could become reanalysed as sentence adverbs if the context allowed it. One can imagine this happening to an adverb like *sadly*, which has been shown to be a particularly flexible adverb, with the potential to enter into relational structures with a head, a VP, the subject or the speaker (Swan 1982).[9]

Both Swan (1988) and Fischer (2007) note that many sentence adverbs, such as *thankfully, presumably*, *undoubtedly*, *admittedly* and *allegedly,* do not have corresponding structures such as those in (5). This, they claim, shows that once the process deriving

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[9] A similar correlation between leftward placement and subjective meaning has been demonstrated by a number of scholars (see e.g. Adamson 2000; Breban 2008; Traugott 2012; Degand 2013).

sentence adverbs had become productive in speakers' grammars, new sentence adverbs could be derived by analogy with existing formations (Swan 1988: 531–32, 535; Fischer 2007: 276).

The development of sentence adverbs involves the development of a subjective function for *-ly* adverbs and hence subjectification. It also crucially involves an increase in scope. This does not fit into the traditional morpho-syntactic definition of grammaticalization, which holds that increased grammaticalization typically leads to a reduction in scope (cf. Lehmann 1985: 309).[10]

3.2.3 Subject adjuncts

Another function which has become increasingly realized by *-ly* adverbs is what has been – conveniently but somewhat inaccurately – termed 'subject-modification' or the 'subject-modifier function' (e.g. Killie 1993 and Swan 1998: 444). The term refers to elements which are heads of clause elements, and which seem to be inherently oriented towards the subject, but which are not subject complements. Some examples are given in (6) and (7) below.[11]

(6)   Although he **willingly** complied, it was not without misgivings. (British National Corpus, H9X 107)

(7)   Four days, Carew thought **joyfully**, four whole days! (British National Corpus, B1X 3540)

Adverbial subject modifiers like those in (6) and (7) have been referred to as 'subject adjuncts' because they are said basically to modify the subject, but without being evaluative, like subject disjuncts (Quirk et al. 1972: 465–71; Swan 1990; Killie 1993). Quirk et al. (1985: 572–578) refer to the relevant adverbs as 'subject subjuncts'.

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[10] Norde & Beijering (2013) reports another instance of increased scope in secondary grammaticalization, viz. in the adverb *mon* 'I wonder'.

[11] It should be noted that some scholars distinguish between adverbs such as those in (6) and (7) on syntactic grounds. For example, Geuder (2002) terms pre-verbal adverbs such as that in (6) 'transparent adverbs', while post-verbal adverbs such as that in (7) are classified as manner adverbs. Ernst (2002) speaks of 'clausal' or 'state' readings vs manner readings (cf. Killie 2007b for a discussion).

The category of subject adjuncts has increased in frequency, not only in absolute terms, but also compared to the corresponding adjectives (cf. Swan 1990, 1997, 1998; Killie 1993). Thus, Old English texts contain many adjectival uses which require an adverb in Present-day English. Examples are given in (8)–(10).

(8) swa swa leo grimmeleð **gredig** on westene

even as the lion roars greedy in desert

 'even as the lion roars greedily in the desert.'

(*Ælfric's Lives of Saints* I 332, cited in Swan & Breivik 1997: 410)

(9) ic þine þenunga **est-ful** gefylde

I Thy service devout fulfilled

'I have fulfilled Thy services devoutly.'

(*Ælfric's Lives of Saints* II 302, cited in Swan 1998: 449)

(10) & he þære mildheortnesse **unsorh** abad

and he the mercy joyfull awaited

'and he joyfully awaited the mercy (of God)'

(*The Blickling Homilies*, cited in Swan 1998: 449)

While Present-day English almost without exception uses *-ly* adverbs to describe the subject's state of mind in sentences like (8)–(10), Old English makes more extensive use of other means, including adverbs, adjectives, and case forms (genitives, datives) (Swan 1990: 49–50). The two dominant categories here are adjectives and adverbs ending in *-lice*.[12] Swan (1996: 479) reports an adjective rate of 27.4 % in Ælfric's *Lives of Saints,* while the proportion of adverbs ending in *-lice* adverbs is 52%. The adjective rate is as low as 13 % in Swan's (1998) Old English corpus. This is a more mixed corpus than the one used in Swan (1996) and hence contains more text types and writing styles. The results of Swan (1998)

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[12] To what extent these are adverbs ending in *-lice* or *-lic* adjectives carrying the adverbial *-e* suffix (cf. section 3.1) is impossible to tell, but they are at least easily distinguishable as adverbs.

perhaps suggest that Ælfric's usage is somewhat conservative. The very high adverb rates reported by Swan for Old English make it doubtful that the context in question was ever completely adjectival.

Killie (1993) provides data from late Middle and Early Modern English showing that adverbs continued to gain ground over adjectives. The adverb rate in Killie's prose material is 89 % in the late Middle English and 95.5 % in the Early Modern English corpus (1993: 128, 135).[13] It seems, then, that there has been a steady increase in the use of adverbs as subject modifiers between the Old English and Early Modern English periods. There is no corresponding quantitative study of subject modifiers in Late Modern or present-day English, but there is little doubt that -ly adverbs still dominate in the relevant context.

In more recent times, English has developed a new subset of subject adjuncts, viz. the category of 'appearance/attribute adverbs' (Swan 1990, 1997, 1999; Killie 2000b, 2007). Examples are given in (11)–(13).

(11) The table was enormous and gleamed **redly** in the candlelight. (British National Corpus, H8X 1115)

(12) The water was up to his chest and his hair was slicked back **wetly** from his forehead. (British National Corpus, G04 446)

(13) … the trees dotted along the road waved **greenly** reminding Emily of home. (British National Corpus, CKD 1973)

The existence of adverbs of such adverbs is surprising given the common claim that adjectives denoting colour and other physical properties – so-called 'stative' adjectives – do not give rise to adverbs (cf. the discussion in Killie 2000b, 2007b). However, Killie (2000b, 2007b) shows that such adverbs began to occur with some frequency in the 19th century. They are admittedly not frequent, and they are literary (mostly occurring in prose fiction), but

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[13] There are quite extensive differences between prose and poetry, adjectives being used much more frequently in the latter genre (Killie 1993: 128–131, 134–135).

their frequency has increased considerably during the last couple of centuries, and in prose fiction they have in fact become more frequent than adjectives (2007: 340).[14]

Killie (2007b: 342, 359–360), having shown that appearance/attribute adverbs mostly occur in post-verbal position, argues that they may have been formed by analogy with post-verbal manner adverbs and intensifiers, as illustrated in (14) below.

(14)   shine brightly/radiantly → shine redly/glossily

       wave energetically/incessantly → wave greenly

It is not self-evident how the facts presented in this section should be interpreted. They may be explained as extensions within the subject adjunct category. However, a number of scholars have argued that subject adjuncts do not form a separate category at all, but that all the adverbs in (14) should be placed in the same category because they all syntactically modify the verb, i.e. are VP-internal. Ernst (2002) terms all such adverbs manner adverbs. On this definition the general increase in the use of 'subject adjuncts' simply involves the extension of the *-ly* suffix to new manner adverb contexts. The development of appearance/attribute adverbs, for example, may be seen as a further extension which involves the loss of a semantic restriction on the derivation of manner adverbs. Whatever analysis we adopt, it would hardly be legitimate to regard appearance/attribute adverbs as representing a new function of *-ly* adverbs. They are either extensions within the subject adjunct category or within the manner category.

3.2.4 Intensifiers

The *-ly* adverb has also come to dominate the intensifier function. While in Shakespeare's time phrases such as *exceeding sorry* and *extreme ill* were perfectly acceptable, unsuffixed intensification is in present-day standard English normally restricted to a few adverbs and is

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[14] Killie (2014) provides data on the subset colour adjectives/adverbs which show that non-literary genres such as user manuals categorically use adjectives, as in *When battery charge is completed, the lamp lights **green** and does not turn OFF*.

used mainly in oral, informal discourse (Kirchner 1970–1972: 233; Quirk et al. 1972: 237; Peters & Swan 1983: 74–75). Interestingly, this register difference appears to have existed also in the 18th century (Pounder 2001: 342).

With respect to the change in intensifiers, Nevalainen (1994a: 245) claims that the Early Modern English period represents a watershed. The data provided by Peters (1993, 1994) seem to support her claim. According to Peters, late Middle English letters have only a limited repertoire of intensifiers, the most common ones being *right*, *well*, *full* and *sore* (1994: 274–275). In the 17th century 'a thoroughgoing change in the inventory becomes apparent in relation to the fifteenth century' (1994: 277). Specifically, in the 17th century-material the old intensifiers have either gone out of use or they occur only in formulaic expressions, a number of new items having replaced them (1994: 277–280). The new intensifiers are typically of the *-ly* type. This trend is also clear in Peters' 18th-century material (1994: 285). Nevalainen (1994a: 245) maintains that a number of intensifiers had *-ly* appended towards the beginning of the Late Modern period. In the same vein, Burrows (1992) notes that the use of intensifiers such as *very*, *more* and *so* drops sharply around 1800. He suggests that the decreasing use of these intensifiers 'seems to mark a change from a small set of fixed forms to a much larger set, individually less common, of vogue words like *absolutely*, *completely*, *perfectly* and *totally*' (1992: 191; cf. also Strang 1970: 138–139). According to Bolinger (1972: 24), more evidence to the same effect is provided in Pegge's *English Language*. In the first edition of this book, which appeared in 1803, Pegge claims that 'The best of us, gen. use the adj. for the adv., where there is any degree of comparison to be expressed. 'How extreme cold the weather is''. By contrast, in the 1843–1844 edition, the same author notes that this kind of practice is 'quite out of date now'. According to him, there were only a few unsuffixed intensifiers left in 19th-century English, viz. *sure*, *awful*, *mighty*,

precious, *whole*, *real*. Some of these were extremely rare and were only used in colloquial language. They were being replaced by an ever-growing number of *-ly* adverbs.[15]

The case of intensifiers clearly shows that in the 17th–19th centuries *-ly* derivation was increasingly conceived of as the only productive and correct way of forming intensifiers. Consequently, new adjectives formed adverbs only in this way, and existing zero adverbs were regularized. The concept of obligatorification seems in place here.

3.2.5 Loss of morphological and semantic restrictions and increase in productivity

The *-ly* suffix has become increasingly attached to present participles in adverbial function (Killie 1998). This is, of course, a morphologically defined category, including various semantic meanings and syntactic and pragmatic functions. There seems to have been a constraint on the derivation of *-ly* adverbs from present participles in earlier English (Swan 1990: 50, 1998: 186–187; Killie 1998); however, adverbs such as *smilingly* and *burningly* started to occur in the 14th century (Killie 1998: 120–123). From the 14th century on there has been a steady growth of new adverbs of this kind, but the category did not become truly productive until the 19th century (Killie 1998).[16] Also past participles have been increasingly used with the *-ly* suffix attached (Swan 1990, 1998). Thus, the increased productivity of the *-ly* suffix is mirrored in a weakening of morphological restrictions on *-ly* derivation. The fact that English has developed a category of appearance/attribute adverbs shows that the increased productivity of *-ly* has also led to a weakening of semantic restrictions on *-ly* derivation.

Investigations of the productivity of adverbial *-ly* in 19th and 20th-century English show that the suffix became extremely productive in the course of these two centuries, especially in

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[15] Pegge's comments fit in nicely with the claim made by Pounder (2001: 338) that in the 19th century there was a massive 'campaign against optionality' with respect to adverbial form (see the discussion in section 3.5).

[16] Compared to the other adverbial categories discussed above, then, present participles seem to have been adverbialized relatively late. Support for this claim may come from Bolinger (1972: 25), who notes that present participles functioning as intensifiers appear more frequently without the *-ly* suffix than do other kinds of intensifier.

the 20th century. Baayen (1994) studies the productivity of 29 affixes in 19th-century English, including common affixes such as *-able*, *-ism*, *-ize*, *-less*, *un-*, and *re-*. Of all the affixes under study, *-ly* turns out to be the most productive one by far, as measured by the number of hapaxes (1994: 29, 31).[17] Baayen & Renouf (1996) investigate the productivity of five affixes (*-ly*, *-ity*, *-ness*, *in-* and *un-*) in 20th-century English. The study involves two different corpora – an 80-million-word corpus of text from the *Times*, and the Cobuild/CELEX database. In both of these, the *-ly* suffix turned out to be the most productive affix of the five affixes under investigation. The data presented in various publications by Swan (e.g. 1988: 503–505, 1990, 1996, 1998, and 1999) and Killie (1998, 2000b, 2007b) also corroborate the hypothesis that with regard to the productivity of adverbial *-ly*, the 19th–20th centuries represent an extremely expansive period.

3.2.6 The inflectional hypothesis

As explained in section 2.2, a lexical element may be grammaticalized into a derivational affix in a process of primary grammaticalization. This derivational affix may subsequently develop into an inflectional affix in a process of secondary grammaticalization. As we have seen, the adverbial *-ly* suffix has become very productive during the last couple of centuries. In fact, some scholars see it as fully productive and fully obligatory and consequently regard it as an inflectional suffix (e.g. Lyons 1966; Emonds 1976; Sugioka & Lehr 1983; Bybee 1985; Radford 1988; Haspelmath 1996; Baker 2003; Giegerich 2012). This is a very complex debate and the account given here must necessarily be a simplified version.

According to the 'inflectional hypothesis', adverbs are inflected adjectives: they are uninflected when used in attributive and predicative position, or as a postmodifier in a noun phrase, and inflected in all other positions. Hence, *-ly* forms and non-*ly* forms are found to occur in complementary distribution (see the discussion in Payne et al. 2010: 33–36). This is

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[17] A hapax (legomenon) is a lexeme that occurs only once in a large corpus. A substantial number of hapaxes shows that a word-formation process is routinely used to derive new lexemes, i.e. is productive.

the main syntactic argument in favour of the inflectional hypothesis. It has, however, been argued that *-ly* and non-*ly* forms are *not* in complementary distribution, but that there are many cases of overlap (Bauer et al. 2013: 326). Payne et al. (2010) argue at length that adverbs commonly modify nouns, and that adjectives may modify adjectives. Another syntactic argument in favour of the inflectional hypothesis is that adjectives and adverbs take the same modifiers, e.g. *very* and *surprisingly* (see e.g. Giegerich 2012).

There are also a number of morphological arguments. Some of them relate to the ordering of derivational and inflectional suffixes. For example, Giegerich (2012: 348) argues that derivational suffixes can occur before other derivational affixes and be followed by inflectional suffixes, while *-ly* can do neither. However, it has been argued repeatedly that the differences in ordering of derivational and inflection affixes are not as categorical as is claimed by Giegerich (see e.g. Haspelmath & Sims 2010: 95). Another argument is that 'adverbs' have no inflectional morphology of their own. When they inflect, they behave as if they were adjectives, using *-er* and *-est* or *more* and *most*. In addition, adverbs are said to occupy an isolated position in the derivational system of English. Nouns, verbs and adjectives can be freely derived from each other. By contrast, *-ly* adverbs do not give rise to other categories, and the only category which can give rise to *-ly* adverb is adjectives (Giegerich 2012: 344–346). The former claim is contested by Payne et al. (2010: 63) on the basis of formations such as *seldomness* and *soonish*. The latter claim is not entirely correct as the *-wise* suffix quite productively derives adverbs from nouns (Lenker 2002).

The main semantic argument in favour of the inflectional hypothesis is that the *-ly* suffix has become void of meaning, or expresses a very abstract meaning (Plag 2003: 195; Giegerich 2012: 352). It has been argued, however, that this is not a characteristic only of inflectional suffixes. Derivational *–al,* for example, which forms adjectives from nouns, can hardly be said to add any lexical meaning to the new word (Bauer et al. 2013: 324). On the

other hand, it is commonly claimed that the *-ly* suffix is *not* semantically empty, but still retains an abstract or figurative meaning component, while zero adverbs tend to have concrete meanings. This semantic distinction is discernible in adverb pairs such as *deep* vs. *deeply*, *high* vs. *highly* and *bright* vs. *brightly*, e.g. *deeply moved/felt* vs. *stick one's hands deep into one's pockets* and *shine bright* vs. *smile brightly* (Jespersen 1961: 38; Schibsbye 1965: 152; Tagliamonte 2012: 222–223). The figurative/abstract meaning component is attested as early as in Middle English (cf. Donner 1991). Tagliamonte & Ito (2002) argue that the dimension abstract vs. concrete was the most significant factor constraining the use of *-ly* vs. zero adverbs in York, England in the late 1990s (cf. also Tagliamonte 2012: 225–226). The question is whether this distinction is still productive, or if we are talking about an earlier meaning component or meaning distinction which has become lexicalized in a restricted set of individually learnt adverb pairs, but which does not give rise to new pairs. Opdahl (1997: 100–101, 106) finds that the distinction is not consistently upheld in her corpus of 20th-century British and American English but may be overridden by syntactic factors; 'for example, if an adjective or adverb not taking the *-ly* suffix is coordinated with a dual-form adverb, the latter is likely to occur in the Ø-form' (1997: 20).

Bauer et al. (2013: 324–326) argue against full productivity for adverbial *-ly*. They emphasize that there are many restrictions on *-ly* derivation still. They further argue that there is 'wide-spread free variation between the adverb with and without *–ly*; among these are *fair*, *loud*, *quick*, *slow*, *soft*' (2013: 326; cf. also Payne et al. 2010). Whether there is 'free variation' is hard to tell, but there is certainly some degree of variation in the choice between *-ly* and non-*ly* forms (Nevalainen 2004: 6–8).

Nevalainen (2004) adopts a 'continuum approach' to the question of inflection vs. derivation (cf. Haspelmath & Sims 2010: 79–81), arguing that as adverbialization 'is still gaining ground in English, a more delicate analysis would place it in the transitional area

between derivation and inflection' (2004: 25). An alternative approach is taken by Allerton & French (1987: 103), who propose that *-ly* is inflectional in the manner adverb function, but not elsewhere.

The debate about the derivational or inflectional status of the *-ly* suffix will most likely go on. It is hard to determine which arguments are relevant in the 'jungle' of arguments for and against the inflectional hypothesis. What is needed is a thorough investigation which manages to tease apart facts relevant to the present-day system and facts which reflect previous stages, and which should be regarded as lexicalized features. A proper discussion of the functions of *-ly* adverbs is also needed if the inflectional analysis is to work. As noted by Bybee et al. (1994), defining a gram negatively is problematic. We must assume that affixes have inherent lexical meaning, and that they developed because they make a 'content-ful contribution to the utterance' (Bybee et al. 1994: 138). The *-ly* suffix should therefore not be defined as a suffix which must be attached when the function at hand is *not* adjectival.

3.3 Regional, social and stylistic differentiation in adverb marking and the processes of obligatorification

As noted above, there are still a few restrictions on adverbial *-ly* suffixation. Although attaching *-ly* may not have become fully obligatory yet, there is little doubt that adverbial *–ly* has been going through an obligatorification process. We should note, however, that this is only true of Standard English and perhaps a few regional dialects, such as the English of southern England (though not Estuary English). All too frequently one gets the impression that adverbial *-ly* is claimed to be obligatory in English generally. This is of course not the case. Thus, widespread use of zero adverbs is a well-known feature of American English (Görlach 1991: 103–104), though there is variation in adverb marking also among American English dialects (Wolfram & Schilling-Estes 2006: 378). There are apparently more regional dialects where zero adverbs predominate than there are dialects which predominantly use *-ly* adverbs (Kortmann & Schneider 2006; cf. Nevalainen 2008: 293 for a summary).

In addition to the geographical dimension, any discussion of adverb marking in English should take into account social and stylistic factors. With respect to style, zero adverbs are the norm in informal discourse and *-ly* adverbs in more formal registers. This is presumably because Standard English is expected in formal situations, while in informal situations, one uses one's regional dialect. However, in addition English dialects commonly have social layering in adverb use. Tagliamonte & Ito (2002) claim that in York, England zero adverbs first and foremost function as a social marker of the group of less educated (working class) males, while *-ly* adverbs carry the opposite values, signalling higher education and middle-class membership. Macaulay's (1995) study from Ayr, Scotland shows that also in this town, the use of *-ly* adverbs is associated with the middle classes. Shapp & Blake (2011) find that the factor which most strongly promotes *-ly* use in American English is education, while the next most influential factor is ethnicity, *-ly* being much used among whites but strongly disfavoured by the black community. Such sociolinguistic patterns impose a set of expectations on speakers. For example, consistent use of *-ly* adverbs in a working-class, informal setting would be socially incongruous. On the other hand, such sociolinguistic options can be used to signal social nearness or distance (Milroy 1992: 99–100).

English speakers move in and out of situations where standard forms are expected and situations where non-standard/dialect forms are expected. We must assume that speakers experience some confusion in handling the two systems, and that the two systems sometimes interfere with each other. Macaulay (1991: 262) notes that 'lower-class speakers have a stylistic choice available to them . . . that is not available in the same way to middle-class speakers' (cf. also Milroy 1992: 95–100). Such factors are probably the explanation why usage may vary within the same speaker, even during the same conversation, as in the examples in (15)–(17) below, from York, England (from Tagliamonte 2012: 217).

(15) I mean I was *real* small and everything you-know *really* tiny built and I was small in stature as well (YRK/041)

(16) I mean, you go to Leeds and Castleford, they take it so much more *seriously...* They really are, they take it so serious (YRK/046)

(17) We get our pension on a Monday and pension day comes around so *quickly* doesn't it? … It does come around *quick* you-know, you can't believe it (YRK/031)

Hummel (2013) argues that there are two subsystems which coexist and compete, diachronically and synchronically. In Type (A) the adjective and adverb domain are both covered by one single form. This form goes back to a common Indo-European tradition which has been conserved where the impact of standardization is lower (e.g. American English, lower-class English, every-day communication). The type (B) system uses a suffix for adverbial functions, restricting Type (A) to noun modifiers. This system is promoted by a shared Western culture that specifically promotes Type B in standard literacy (Hummel 2013: 29). As shown above, Standard English has been moving towards increased use of the (B) system. By contrast, it has been claimed that the use of adverb marking is decreasing in American English dialects (Ross 1984; Wolfram & Schilling-Estes 2006: 378). There is no solid empirical evidence for this claim, but if it is correct, American English is perhaps developing a sharper delineation between system (A) and system (B), i.e. American dialects are distancing themselves from standard usage. Alternatively, Americans use a lower proportion of *-ly* adverbs because they feel an increased freedom to use non-standard, dialectal forms in situations where some decades ago they would have felt that standard forms are required. In other words, the development may be due to changes in degrees of perceived formality over time rather than changes within the dialects.[18]

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[18] I owe this observation to the editors of this issue.

The choice between *-ly* and non-*ly* is not only determined by grammatical factors, then, but also by aspects of the situation and by the social background and aspirations of the speaker. The social dimension of adverb use suggests that the concept of communicative obligatoriness is highly relevant in a discussion of adverb form in English.

3.4 Adverbial *–ly* and paradigmatization

When a form has become grammaticalized, it enters into paradigmatic relationships (linguistic, social, stylistic) with other forms. The development of a new relational meaning – or function – in a secondary grammaticalization process necessarily involves further paradigmatization: the use of the grammatical element has changed and the element must again position itself in relation to other constructions which are candidates for the same 'slot'. This has clearly happened also to the adverbial *-ly* suffix.

When *-ly* was adopted as an adverbial marker a millennium ago, the suffix entered into a paradigmatic opposition with both adjectives and zero adverbs. The suffix started 'carving out a place for itself' – or for *-ly* adverbs – in the domain covered by adjectives and adverbs, which we may perhaps refer to as the area of modification. What functions and values were expressed by adjectives, zero adverbs and *-ly* adverbs at this stage we can only guess at. The current system is highly complex and is the result of a millennium of paradigmatization. Not only do the rules for adverb marking differ between different regional and social dialects. In addition, individual adverbs (*-ly* or non-*ly*) or adverb pairs (*-ly* or non-*ly*) have lexicalized meanings or meaning contrasts that need to be learnt one by one. There are adverbs which only have a zero form (*fast*, *seldom*, *soon*) and adverbs which only have a *-ly* form (*likely*, *only*, *early*). There are *-ly*/zero pairs where the two members differ semantically along the literal vs. figurative dimension (*high/highly*, *deep/deeply*), and pairs where the two differ in less predictable ways (*hard/hardly*, *just/justly*). There are also *-ly* and zero pairs for which there is no lexical meaning difference (*slow/slowly*, *loud/loudly*, *continual/continually*). This

is where we find sociolinguistic variation (Tagliamonte 2012; Tagliamonte & Ito 2002). However, such variation is not permitted in all positions. Preverbally a *-ly* adverb is apparently always required; hence *He drove slow* but **He slow drove* (see e.g. Giegerich 2012: 350). Given the complexity of the system, it is only to be expected that speakers occasionally produce incorrect forms, such as *run fastly, try hardly,* and *meet seldomly* etc.

3.5 'Adverbialization': causes and mechanisms

The spread of the adverbial *-ly* suffix has been termed 'adverbialization' (Nevalainen 1994a: 243–244, 1997: 182; Swan 1997: 187–193, 1998: 450–452). It is important to realize, however, that this term does not refer to one unitary process, but rather to the result of different, but interconnected, processes. As regards sentence adverbs, for example, *-ly* adverbs are assumed to have replaced different types of phrases and clauses containing adjectives and nouns, creating a new function for themselves. It is in such cases that the term 'adverbialization' seems most appropriate. Nevalainen (1994a) names such changes 'functional-semantic shifts' (1994a: 243). The increased use of *-ly* adverbs as manner adverbs, by contrast, involves no categorial shift, but is the result of a 'morphological regularization process' which has taken place within the manner category (Nevalainen 1994a: 243–244). In this process, one morphological type of adverb – the *-ly* adverb – has been ousting another – the zero adverb. In grammaticalization terms, we may refer to this process as specialization resulting in increased obligatorification. In such cases the term *adverbialization* may seem less fitting; however, there are some good reasons for doing this. First, in some cases it is simply impossible to tell whether a lexeme is an adjective or a zero adverb (Nevalainen 1997: 153–154). By limiting our studies of adverbialization to clear cases of category shift, we would therefore exclude a large number of adjectives/adverbs from the statistics. By instead studying the general spread of the *-ly* suffix – or rather, *-ly* vs. non-*ly* forms – we do not have to limit ourselves to just a subset of the cases as this is a phenomenon

that we can observe without too much difficulty. Secondly, and perhaps more importantly, it is legitimate to treat the two types of process as two sides of the same coin as they must have reinforced each other, in spite of their different characteristics.[19]

Nevalainen (1997: 148) discusses the status of the term adverbialization. She notes that '[g]iven that adverbialization is a form of grammaticalization, as suggested in the introduction to this issue (see also Traugott 1988: 132–134), these processes of functional specialization may be characterized as further or secondary grammaticalization within the adverb category'. Later in her article (p. 181), she also uses the term 'secondary adverbialization' to refer to the processes through which adverbs become polyfunctional (cf. also Nevalainen 2008). This is in line with the definition adopted in the present article. We are, of course, only talking about general, systematic processes here, not lexicalization processes which operate on individual adverbs.

Adverbialization is probably driven by a number of factors, causes and mechanisms, which interact in various ways. Analogy/rule generalization must have played a vital role, as is commonly the case in grammaticalization (Hopper & Traugott 2003: 63–69). The suffix spread to identical contexts through analogy, causing morphological regularization − or obligatorification − to occur. It also spread to new, but related, contexts on the basis of a perceived similarity with an already adverbial context, causing further extensions to occur. Intensifier and manner adverbs exemplify the first phenomenon, while appearance/attribute adverbs are examples of the latter phenomenon. Which mechanisms are behind the development of sentence adverbs is unclear (cf. section 3.2.2).

One force that has been claimed to be important in adverbialization is prescriptivism (cf. Pulgram 1968, Pounder 2001; Killie 2005), which became a noticeable force in Britain in the Late Modern period. Prescriptivist activity in the adverb domain in English has first and

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[19] Perhaps confusingly, the term adverbialization is also used by some to refer to the synchronic process of deriving adverbs (e.g. Klooster & Verkuyl 1974; cf. also Nevalainen 1997: 149).

foremost focused on the form of verb modifiers/manner adverbs and intensifiers (Killie 2005). In these functions, usage was highly variable, both *-ly* and zero adverbs being much used. English prescriptivists decided that of the two variants, the *-ly* form should be promoted, and the zero form became heavily stigmatized. Killie (2005) argues that given the very special sociolinguistic climate of 18th and 19th-century England, prescriptivist activity most likely led to an increase in the use of adverbial *-ly*.[20] Prescriptivism cannot, however, be said to have driven all the individual developments described above. Given that prescriptivists rarely recommend hitherto unknown uses, or uses which are infrequent or marked, we must assume that functional-semantic shifts in the adverb domain are not the result of prescriptivist efforts, but have been brought about by other, language-internal forces and mechanisms.

4 Summary and discussion: the concept of secondary grammaticalization

In this article I have defined secondary grammaticalization as the development of new grammatical functions in an already grammatical element. We have seen that this concept applies to the development of the *-ly* suffix given that the suffix has developed new functions after its initial grammaticalization. I have pointed to various factors and processes which I consider to have played a role in the secondary grammaticalization of the *-ly* suffix, e.g. paradigmatization, specialization, obligatorification, subjectification, layering and persistence. However, these do not seem to be exclusive to secondary grammaticalization, at least not on the definition of secondary grammaticalization applied here. The same goes for pragmaticalization, i.e. the grammaticalization of discourse markers. Such markers may develop from both lexical and grammatical material, such as adjectives, adverbs and

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[20] The situation was different in North America, where Noah Webster was sanctioning the use of zero adverbs as being a 'genuine' and 'sound' part of the language (Tagliamonte 2012: 219–220, 227). This may be one reason why the zero form is the preferred adverb form in American English. Another factor which may be important is that the emigration from Britain to American started at a time when the zero adverb was a current form in all dialects of England, including Standard English.

demonstratives (see e.g. Diewald 2011: 382). It appears that secondary grammaticalization commonly involves just another round of grammaticalization, which potentially has more or less the same characteristics as primary grammaticalization processes. The crucial difference between primary and secondary grammaticalization apparently lies in the type of input they take, viz. lexical vs. grammatical.

My answer to the questions posed in the introduction, then, is that it is hard to find defining features of secondary grammaticalization, except from the fact that the starting point is a grammatical element. There may well be features which are common in secondary grammaticalization, but they do not seem to occur without exception, at least not if secondary grammaticalization is defined as it is in this study. There may, of course, be factors or processes which are always present in secondary grammaticalization, but which have not been mentioned here, or which are yet to be discovered.

One way out of the current terminological maze might be to stop distinguishing between primary and secondary grammaticalization and simply refer to both as grammaticalization. This involves leaving out any specification of sources from the definition, i.e. changing the definition to something like 'the systematic development of new grammatical functions'. An alternative approach is to dispose of the concept of secondary grammaticalization altogether, limiting the term grammaticalization to the development of grammatical material out of lexical material, as is done by Detges & Waltereit (2002) and von Mengden (2008).

If we apply a wide definition of grammaticalization, including what is presently referred to as primary and secondary grammaticalization, one way forward may be to categorize grammaticalization processes on semantic-pragmatic grounds and see if any categorical differences appear. Perhaps this will help us understand why some of the processes which are said to be characteristic of grammaticalization apply in some cases but

not in others. An approach along these lines is suggested by Kranich (this issue). She proposes that in assessing the relationship between secondary grammaticalization and subjectification, one needs to take into account the nature of the target category of the grammaticalization process. If the target category is a marker expressing a notion grounded in speaker beliefs and attitudes, such as a modal particle or discourse marker, then the grammaticalization process will be accompanied by subjectification. In the absence of such speaker grounding, no subjectification will occur. This seems like a reasonable generalization. A similar view is expressed by Narrog (this issue), who claims that there are two general tendencies in secondary grammaticalization, namely one in terms of advanced speech-act-orientation (see also Narrog 2012), and one in terms of the development of core grammatical marking, which is basically non-expressive and non-subjective.

Another important claim in this article is that the concept of obligatoriness should encompass both language internal obligatoriness and communicative obligatoriness, where the latter also includes socially determined obligatoriness. Further, the concept of paradigmaticity should include the opposition of social variants.

Acknowledgements

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