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1. Introduction

In this thesis an attempt is made to describe diachronic changes in frequency, usage, and category status of a group of intensifiers and intensifying adverbs. Intensifiers are modifiers that express the semantic role of degree (cf. Quirk 1985). They have the “function of emphasizing the presence of the quality expressed by the head” (Bäcklund 1973: 158). Intensifying adverbs are adverbs that function as intensifiers in particular contexts, that is, with specific ‘heads’¹.

The scale of degree is usually a very subjective one; however we can roughly distinguish amplifiers from downtoners.² The present paper focuses on amplifiers which modify adjectives, or other adverbs (as compared to adverbs of degree which modify verbs). Amplifiers “scale upwards from an assumed norm” (Quirk 1985: 445), and can be further divided into boosters (e.g. *extremely*, *very*, *pretty*) and maximisers (e.g. *completely*, *absolutely*, *totally*).

The history of intensifiers involves the development from adverb to intensifying adverb and, eventually, the development from intensifying adverb to intensifier. That is, an adverb with a specific meaning, a ‘lexical’ item, gets a grammatical function, the function of intensification, and eventually becomes a ‘grammatical’ item. This “change by which lexical categories become functional categories” (Haspelmath 1999: 1043) is called ‘grammaticalisation’. Grammaticalisation “compris[es] also changes in which a functional category becomes even more grammaticalized” (Haspelmath 1999: 1044), that is, it “shifts a linguistic expression further toward the functional pole of the lexical-functional continuum” (ibid.). Thus, the history of intensifiers is one of grammaticalisation.

One of the main characteristics of grammaticalisation processes is their ‘unidirectionality’ or their ‘irreversibility’.³ This means that while it is very common

¹ The ‘head’ of a phrase is the unit (constituent) or ‘word’ that conveys the main ‘topic’ of the phrase (“what the phrase is about”, as Pinker would put it); e.g. in an adjectival phrase, like ‘bloody good’, the adjective (*good*) is the head and the adverb (*bloody*) its modifier, which further shapes the meaning of the head; the modifier directly precedes the head.

² ... although there certainly are expressions which can be used in both functions (e.g. *quite*); For more detailed information about (the classification of) intensifiers, see e.g. Quirk’s 1985 *Comprehensive Grammar of the English Language*

³ For further discussions on unidirectionality and irreversibility, see e.g. Haspelmath 1999, Traugott 2002

that a (lexical) adverb becomes a (functional) intensifier, the reverse – a (functional) intensifier becoming ‘lexicalised’ – is highly unlikely. In the following sections we will take a closer look at what happens on the way from lexical to functional category and why this is a one-way road. The final goal of this thesis, then, is to identify typical pathways of development, and to (possibly) explain them.

Before addressing the research questions of how and why intensifiers change and what actually triggers the change, we will briefly discuss the notion of intensification (1.1), and the ways in which intensifiers and intensifying adverbs may differ from one another (1.2). This will mainly be done on the basis of previous work on intensifiers.

Then we will regard the theoretical background of lexico-semantic changes in intensifiers, which is determined by grammaticalisation theory (1.3). At the end of this chapter (1.4) we will present the methods applied in the present research and the dataset for the study of diachronic changes in intensifiers.

After an outline of the expected patterns of change (chapter 2), we will then come to the empirical part (chapter 3), on the basis of which an attempt is made at answering the research questions.

The open questions at the end of chapter 3 will then lead to a tentative afterthought in the final chapter (4).

The appendix at the very end of the paper gives an overview of the data and is intended to offer the reader the possibility to check and compare frequencies, collocations, and semantic origins of intensifiers whenever s/he feels the need for it.

1.1. The notion of intensification

The concept of intensification has to do with the semantic role of degree; it is concerned with degree modification according to “an abstractly conceived intensity scale” (Quirk 1985: 589). The degree of intensity is evaluated by the speaker, to whom intensification is “a vehicle for impressing, praising, persuading, insulting, and generally influencing the listener’s reception of the message” (Partington 1993: 178).

Intensification is a function, which can be filled by (a) words which serve no other function, and (b) words which serve other functions as well.

While there are certain adverbs (e.g., *very*) which always and exclusively act as degree modifiers, there are others with which ambiguity exists between their lexical meaning and a possible degree-modifying function. (Peters 1992: 530)

Very is given as an example for a 'pure' intensifier (a) which serves no other function. Intensifying adverbs (b) have specific meanings which (may) serve the function of intensification by implication (which might also lead to ambiguous readings) rather than directly. Take, for instance, *fearfully*, a fearful experience usually is an intense one. The intensity is thus implied in fearful. The implication of an intensifying function can be brought about in several ways, depending on the contexts in and the heads with which it is used. In *fearfully beautiful*, for example, the adverb is read as an intensifier because the literal reading makes no sense anymore. In a different example, like *fearfully frightened*, the adverb conveys the intensifying function because the literal meaning is redundant.⁴ In the next section we will take a closer look at the various ways in which the intensifying function can be brought about (see 1.2.2).

1.2 Parameters of variation

In order to get a better overview of the differences among intensifiers and intensifying adverbs we will classify them into factors of variation, which are roughly based on Cacchiani's (2009: 233ff) lexico-semantic parameters: degree of intensification, underlying patterns of intensification, and extent of grammaticalisation/delexicalisation.⁵

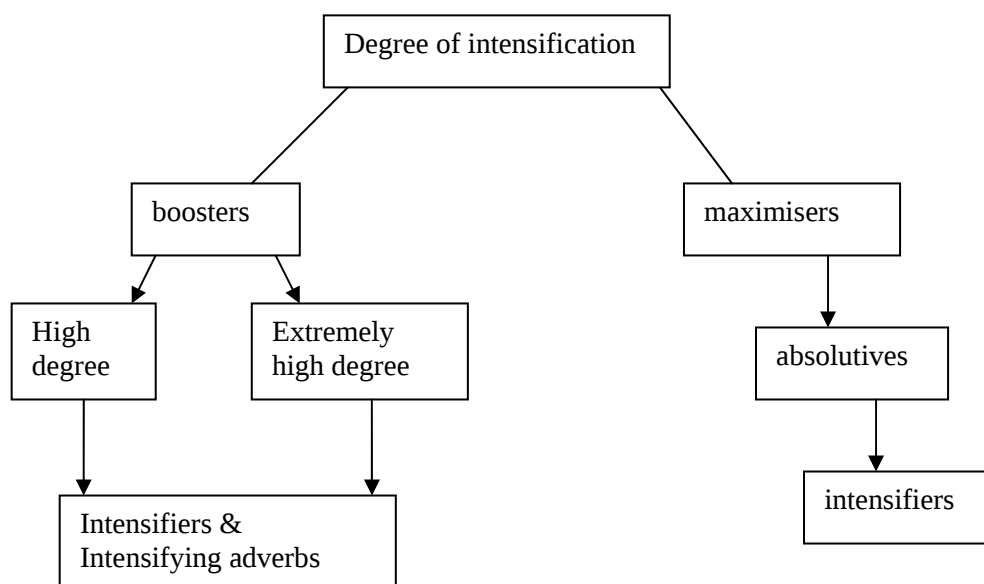
⁴ This effect can be referred to as 'semantic repetition' (Bolinger 1972), or 'semantic feature copying' (Cacchiani 2009).

⁵ Cacchiani includes the factor of semantic prosody as well, i.e. the positive or negative force/emphasis added by the intensifier, but this appeared to be difficult to include in the present study (because we are mainly concerned with written language). In order to investigate prosodic

1.2.1 Degree of intensification

An amplifying intensifier or intensifying adverb can modify the head on a scale of degree from a (relatively) high to an extremely high degree. At the very end of the scale are 'maximisers', or 'absolutives', which serve the function of intensification (almost) exclusively and directly through their primary lexical meaning, which refers to 'absoluteness', or 'totality' (e.g. *completely, absolutely, totally*). Semantically they express the highest degree, the 'absolute' endpoint on a scale; grammatically they can be said to be 'pure' intensifiers, because they are always read in an intensifying meaning (even if their lexical meaning prevails). Intensifiers of high or extremely high degree are called 'boosters'; they form 'open classes', and new expressions are frequently created to replace older ones (cf. Quirk 1985). The group of boosters can contain pure intensifiers as well as intensifying adverbs (i.e. adverbs that serve other functions, too). This distinction is illustrated in Figure 1 below.

Figure 1 Classification of amplifiers and their degree of intensification



factors we would require data of spoken language and information about intonational patterns, see e.g. Paradis 1997 for a study of intensifiers in the London Lund Corpus.

1.2.2 Patterns of intensification

What exactly makes an intensifier fulfil the function of intensification? Can any adverb become an intensifier? The above example of *fearfully* showed that there are various ways in which an adverb can intensify a head (e.g. by implication of an intensifying meaning, or by repetition of the meaning/quality of the head).

Once an adverb has become a fully grammaticalised intensifier, like *very*, it is a common grammatical item which modifies the head on a scale of degree, i.e. it intensifies the head through degree modification. When using *very* no speaker normally has the original meaning of *very* in mind, but only the function of (degree) intensification. However, if we want to know what actually made *very* an intensifier in the beginning (i.e. in the fifteenth century or so), we have to consider its original lexical meaning, or the semantic field it derives from.

Semantic fields can be understood as “certain groupings of words whose lexical unity is determined by criteria of synonymy or semantic neighbourhood” (Spitzbardt 1965: 353); a semantic field, “a distinct part of the lexicon”, is “defined by some general term or concept” (Matthews 2007: s.v. semantic field).

In the Middle English Period *very* was borrowed from Old (Norman) French *verai*, which was based on Latin *verus*, meaning ‘true’ (COED 2004: s.v. *very*). This means that *very* originally derived from the semantic field of ‘truth’ or ‘reality’, and from this we can assume that the mechanism by which it intensified the head in the beginning of its intensifying career was one of truth assertion. Being a modal, it emphasised the truth of the head.

As we can see the underlying patterns of intensification are often determined – at least in the beginning, i.e. in the transition from adverb to intensifying adverb – by the semantic fields from which the adverbs derive. Rather than investigating all the semantic fields from which intensifiers emerge, we will concentrate on the most common mechanisms that give rise to an intensifying meaning, which obviously reflect the lexical or conceptual domains from which intensifiers originate.⁶ Cacchiani (2009: 234), with reference to Lorenz (2002), gives the following ‘patterns of intensification’:

⁶ For a list of semantic fields of intensifiers, see e.g. Spitzbardt 1965

1. *Degree intensifiers*, or grammaticalized intensifiers like *very*, or *awfully*;
2. *Comparatives* like *extraordinarily*;
3. *Modals* like *genuinely*, *really*, or *truly*;
4. *Telic intensifiers* like *unbelievably* and *unutterably*, which indicate that a norm is reached or overreached (Lorenz 2002);
5. *Non-telic polyfunctional intensifiers* like *amazingly*, or *stunningly*;
6. *Semantic-feature-copying intensifiers*, which copy conceptual meaning, as in *stunning(ly) beautiful*;
7. *Taboo intensifiers* like *bloody*, or *damn*;
8. *Phonaesthetic intensifiers*, or ‘noise metaphors’ denoting strong emotional reactions, as in *howlingly funny* (Cacchiani 2003).

We will regard pattern 6 separately from the other patterns because it involves a strong relation to, or dependence on, the adjective being modified, while all the other patterns (but 8⁷) correlate with the semantic origin of the intensifier.

1.2.2.1 Semantic fields

Lexical groupings are based on a sense of synonymy, which refers to “a lexical relation between two or more lexical forms that have the same meaning and are substitutable for each other in a given context” (Paradis 1997: 66). The question however is if intensifiers from the same semantic field can really replace each other, and if they develop similarly.

Most intensifiers, in one way or another, assume an intensifying function through their original lexical meaning. On the basis of Cacchiani’s list, without pattern 6 (which will be dealt with in the next subsection) and pattern 8, the present study is concerned with six common patterns, determined by six semantic fields, or lexical/conceptual domains:

- 1) Degree intensifiers, which either inherit a meaning of quantity (e.g., *highly*), or are grammaticalised to such an extent that only the aspect of degree is left (e.g., *very*)
- 2) Comparatives, like *extraordinarily*

⁷ Pattern 8 will not be considered in this study because such intensifiers do not occur significantly often. See section 1.4 for selection criteria on the dataset.

- 3) Modals; modality refers to a “[c]ategory covering indications [...] of the degree of certainty with which something is said.” (Matthews 2007, s.v. modality), e.g. *real, really, truly*
- 4) Telic intensifiers, which indicate the passing of an endpoint, such as *incredibly*, but also *infinitely*
- 5) Non-telic polyfunctional intensifiers (or rather intensifying adverbs), which still carry much of their lexical meaning and can be used in an intensifying function by implication of that meaning, e.g. *wonderfully, remarkably*
- 6) Taboo intensifiers, which add to the force of the utterance through being a taboo, i.e. bound to register restrictions and thus normally avoided (in public), such as curses or swear words, e.g. *damned*

While patterns 2) – 6) include intensifiers as well as intensifying adverbs, pattern 1) comprises mainly intensifiers, that is, highly grammaticalised adverbs which are used exclusively in an intensifying function.

Maximisers will be regarded as a separate group of words, as absolutes or totality intensifiers; their pattern of intensification can be said to be modal, but it contains telic aspects as well (in the sense of reaching an endpoint).

- 7) Totality intensifiers, expressing ‘completeness’, in the sense of absolute endpoint on an intensity scale as well as in the sense of absolute certainty; absolutes/maximisers; e.g. *absolutely, completely, totally*

1.2.2.2 Collocations

Semantic-feature-copying (pattern 6) must be regarded in terms of the semantic relations between the intensifier and the adjective it modifies. In fact, the semantic history of intensifiers “ought to be written in terms of a history of collocations” (Peters 1992: 541). The term collocation refers to

[a] relation within a syntactic unit between individual lexical elements; (...) especially where words specifically or habitually go together: e.g. *blond*

collocates with *hair* in *blond hair* or *Their hair is blond*; *drunk* collocates with *lord* in *as drunk as a lord*; (...)

A **collocational restriction** is any restriction on the collocability of one individual word with another. (...). (Matthews 2007: s.v. collocation).

Adverbs which function as intensifiers through semantic-feature-copying can be assumed to be more restricted in their collocability than adverbs which intensify through a pure degree modification. Generally speaking, the collocational behaviour of an adverb correlates with the pattern of intensification, and the extent of grammaticalisation (which will be discussed in the next section). When the intensifying function depends on the lexical meaning of an adverb, then the adverb will be restricted to heads which can be intensified by implication of that meaning.

We will examine these correlations by regarding the adjectives with which intensifiers co-occur. Then we will compare (a) the list of collocates of semantically similar intensifiers in order to depict different aspects of similar meanings, and (b) the distribution of collocations over some decades, assuming that the emergence of a new collocate might give information about the semantic change of the intensifier.

The term ‘collocate’ refers to “any word that occurs in the specified environment of a node”, where the ‘node’ is “the word that is being studied” (Sinclair 1991: 130); thus, in the present paper an intensifier is the node of a collocation and the adjectives it co-occurs with are the collocates. In our case the ‘specified environment’ is one position to the right of the node, i.e. the adjective which is being modified.

Sinclair suggests the distinction between node and collocate in order to examine different types of collocation. “When two words of different frequencies collocate significantly, the collocation has a different value in the description of each of the two words” (Sinclair 1991: 130):

If word *a* is twice as frequent as word *b*, then each time they occur together is twice as important for *b* than it is for *a*. This is because that particular event accounts for twice the proportion of the occurrence of *b* than of *a*.

Let us consider the example of *perfectly reasonable*, in which *perfectly* would be the node *a* in the above quote and *reasonable* the collocate *b*.

- (1) node *a* = *perfectly* > occurs more than 12000 times in front of an adjective in the corpus
collocate *b* = *reasonable* > around 2000 occurrences after an adverb
collocation *a* + *b* (*perfectly reasonable*) > 108 occurrences

Perfectly and *reasonable* co-occur together more than 100 times in a 400 million word corpus; let us for the moment assume that this is a significant collocation.

Perfectly is a very frequent adverb and it co-occurs with many different adjectives; *reasonable* is just one out of many. For *reasonable*, on the other hand, the co-occurrence with *perfectly* accounts for a fifth of all its co-occurrences together with an adverb. This point can further be illustrated by the rank of the collocate in a list of collocations from most frequent (number 1) to least frequent. *Perfectly* modifies more than 30 adjectives (each) more frequently than *reasonable*; *reasonable* is posited on number 37 in a list of collocates (i.e. adjectives) for *perfectly*. In a list of most frequent adverbs co-occurring with *reasonable*, *perfectly* is the number five adverb (i.e. the fifth frequent adverb).

The collocation of a node *a* with a less frequent word *b* would then be called 'downward collocation', which is semantically more significant because it suggests a rather specialised meaning of the node. Given that *reasonable* can be modified by *perfectly* but not by *absolutely*⁸, there must be some difference between the meanings of the two intensifiers. They are semantically similar in that both express completeness in a way, and still they co-occur with different adjectives. The difference must lie in some semantic aspect which *perfectly* possesses but *absolutely* lacks.

When, on the other hand, the less frequent *b* is the node and *a* the collocate, this is called 'upward collocation', which is "the weaker pattern in statistical terms, and the words tend to be elements of grammatical frames, or superordinates" (Sinclair 1991: 130-1). An example for an upward collocation would be (more or less) any modification of *good*. *Good* occurs very often and is intensified by half of the

⁸ There is 1 occurrence of *absolutely reasonable* in COHA: "He sounded absolutely reasonable, but he was just talking to nobody." (1989, news); and 4 occurrences in COCA, in spoken language only (1995, 1999, 2009).

words under investigation⁹; any of these intensifiers can be used to modify *good*; this does not tell much about their meaning, but rather suggests a purely grammatical function.¹⁰

The hypothesis that can be drawn from this distinction is that intensifiers that occur in downward collocations will be specialised and restricted in their use.

1.2.3 Extent of grammaticalisation

When an adverb is used in an intensifying meaning it is grammaticalised, at least to some extent. The intensifying meaning is a grammatical function. This function can become the adverbs primary meaning. If this is the case then the adverb has been fully grammaticalised, which means that it has become a 'pure' intensifier in that it only serves the function of intensification. It has become a grammatical item instead of a lexical item, that is, it has been grammaticalised to such an extent that its original lexical meaning is lost, or at least dramatically weakened, i.e. it has been semantically bleached. Thus, the extent of grammaticalisation refers to "the extent to which intensifiers underwent semantic bleaching while developing from other classes" (Cacchiani 2009: 234). Cacchiani (2005; 2009: 234-5) suggests four categories, "depending on width of collocation and style and register restrictions":

1. *Highly grammaticalized intensifiers* like *very* (the intensifier *par excellence*) but also *highly*, which collocates widely but is still subject to register restrictions;
2. *Relatively less grammaticalized intensifiers* (*fabulously wealthy*);
3. *Co-lexicalized intensifiers*, typically occurring in strong collocations. They are both fossilized expressions, such as *precious few*, and semantic-feature-copying intensifiers like *doggedly insist*;
4. *Lexicalized intensifiers*, which still retain their original meaning (*shockingly underpaid*).

⁹ Many maximisers do not modify good (or if so, less than 100 times)

¹⁰ In fact, the modification of good might be considered an indicator for the shift from (lexical) adverb to intensifying adverb.

Highly grammaticalised intensifiers are not (or only to a very small extent) restricted in their collocability. They can combine with any lexical item with which intensifiers can co-occur (i.e. with (more or less) any adjective or adverb that can be intensified). This is so because they have been semantically bleached in the process of grammaticalisation, so that there is no lexical meaning anymore, which could have relations to, or put restrictions on the combination with, another lexical item. What is left is the intensifying function, which can be used with a wide range of heads.

Relatively less grammaticalised intensifiers, category two, are relatively more restricted in their collocability, since they have retained some of their lexical meaning. They are less grammaticalised and hence less bleached. Because their lexical meaning is still present they can only intensify heads which allow for an intensifying reading.

Co-lexicalised intensifiers largely depend on the head(s) with which they co-occur; they are often part of a strong collocation. In a strong collocation two (or more) words co-occur with one another in such a frequency as suggests a relation between the two words (they co-occur together more often than any of them co-occurs with another word). Thus co-lexicalised intensifiers have strong relations to specific heads (or even to one specific head only), that is, they are strongly restricted in their collocability. Such collocations may come about simply due to habitual use, or through semantic feature copying, or 'semantic repetition':

The effect achieved here is definitely one of intensification, brought about by a repetition of semantic features shared by both modifier and head. (Peters 1992: 543)

Cacchiani gives the example of *doggedly insist*, in which the modifier already implies (or somehow prepares for) semantic features of the head; the adverb somehow triggers the use of this specific head. Doggedly means 'like a dog', and what does a dog do? She insists on something in a way that makes you feel you cannot say no. Another example would be *wonderfully beautiful*.

We will rename the fourth category, because the term 'lexicalised' raises some problems, especially in the context of grammaticalisation theory. We already mentioned that unidirectionality is considered a main characteristic of grammaticalisation processes, which means that it is very unlikely that a grammatical

item becomes a lexical one; but this is what the term 'lexicalised' would imply. Therefore we will call intensifiers of this category *(still) lexical intensifying adverbs*.

1.3 Grammaticalisation theory

Grammaticalisation theory is concerned with "[t]he process by which, in the history of a language, a unit with lexical meaning changes into one with grammatical meaning" (Matthews 2007: s.v. grammaticalization). Grammaticalisation processes are predominantly pragmatic, i.e. context-dependent¹¹. They depend on the speaker's contextual implication and the listener's contextual interpretation. For example, *awfully loud* can be read in its literal, negatively valued meaning (e.g., "It is unpleasantly loud; I wish it wasn't so loud") as well as in an intensifying, positively valued meaning (e.g. "I bought a new subwoofer, it's really/extremely loud. Awesome").¹²

When a participant in a conversation uses an expression in a new way the listener has to interpret the meaning on the basis of circumstantial assumptions. The new (contextual) meaning, for example the intensifying function of *awfully*, might then be interpreted by the listener as part of the (context-independent, descriptive) coded meaning of *awfully*. In a different conversation with different participants the expression might then be used again in an intensifying function, and so spread in this function until the intensifying meaning actually becomes part of the descriptive meaning (e.g. when the adverb is defined as having an intensifying meaning in a dictionary).

Traugott (2002) argues for the Invited Inferencing Theory of Semantic Change (IITSC) "to account for the conventionalizing of pragmatic meanings and their

¹¹ Pragmatics is a "branch of linguistics conceived as dealing, separately from others, with a meanings that a sentence has in a particular context in which it is uttered" (Matthews 2007, s.v. pragmatics)

¹² *Awfully loud* occurs only 3 times in COHA; however even there this distinction can be observed:

- a) Jill, can you hear us? I know the crowd's awfully loud. (2011, spoken)
- b) Minority voices, no doubt, but a minority voice is awfully loud when silence is the competition. (1993, magazine)

While in a) the literal meaning prevails, b) can be read as an intensifying meaning, where loud is something good, something aimed at; (emphasising the importance of the voices, or justifying that minority voices are better than no voices at all; or even comparing the degree of loudness to the zero level of silence).

reanalysis as semantic meanings.” (Traugott 2002: 35). She tries to explain how a lexical item with a coded meaning M1 gets a new coded meaning M2, which then co-exists with, or eventually replaces, M1. The term “invited inference” (IIN) refers to “the complexities of communication in which the speaker/writer (SP/W) evokes implicatures and invites the addressee/reader (AD/R) to infer them” (Traugott 2002: 5). In her model¹³, which describes the mechanisms by which new meanings may spread within a community, she basically suggests the following steps:

1. A speaker or writer uses a word in a new meaning or function (e.g. through metaphorical language use); “SP/W may begin ad hoc to exploit a conversational implicature (IIN) that already exists and may even use it innovatively in a new linguistic environment” (Traugott 2002: 35)
2. The effect of the innovation is evaluated by speakers and listeners in different conversations and with different groups of people; the innovation is tested against speaker preferences, contextual relevance, etc. This step is determined by “SP/W-AD/R constraints on weighting of IINs” (Traugott 2002: 38)
3. If the innovation has been positively evaluated by a large number of people, the new meaning will be conventionalised as a General Invited Inference (GIIN):

If [such innovative uses] do acquire social value and therefore become salient in a community they are likely to spread to other linguistic contexts and to other SP/Ws, in other words they become GIINs with strengthened pragmatic impact. (Traugott 2002: 35)

This means, roughly speaking, linguistic innovations are coined, such as the innovative use of an adverb in an intensifying function (in which it has not been used before); they spread – or not – within a community of speakers, and eventually get conventionalised, i.e. they are taken out of the context in which they emerged and are used in more general contexts. For example, the intensifying function of an adverb can emerge through the collocation with a particular adjective and the

¹³ As illustrated, for instance, in Traugott 2002: 38

resulting pattern of semantic-feature-copying, as in *terribly frightened*. The sense of 'terror' might then be reanalysed as expressing 'a sudden and intense feeling', which could then lead to the conventionalisation of an intensifying meaning of *terribly* and to combinations such as *terribly important* (e.g., it just occurred to me that the project is due tomorrow; it is urgent and it puts me under pressure). In a fourth step the intensifying meaning then gets conventionalised as new coded meaning of *terribly*.

The processes involved in the grammaticalisation of intensifiers and intensifying adverbs are determined by decategorialisation, semantic bleaching, and possibly subjectification.

- 1) Decategorialisation: an adverb becoming an intensifier shifts from being a member of a lexical category to being a member of a grammatical category; adverb > intensifying adverb
- 2) Semantic bleaching: the adverb might over time be used exclusively as a member of a grammatical category and lose its status as member of a lexical category; it won't be used as lexical item anymore and consequently lose its lexical meaning (because some day no one will remember this meaning anymore); intensifying adverb > intensifier
- 3) Subjectification¹⁴: subjective aspects are added to the grammatical function; "the development of a grammatically identifiable expression of speaker belief or speaker attitude to what is said" (Traugott 1995: 32); (degree) intensifier > subjective/evaluative intensifier

As a general rule, these processes are unidirectional, i.e. they occur in the form described above, but not in the reverse direction. A word can shift from lexical category to grammatical category, but not vice versa; a grammatical item can lose its lexical meaning, but once it has been grammaticalised it will most probably not lose

¹⁴ Intensifiers are naturally subjective in some way in that they express the speaker's personal degree evaluation; they might even be called 'intersubjective' (centered not (only) on the speaker but on the addressee), since they are used to influence and persuade others ("You have to try this! It's really good, it's abnormally good..."). However we can expect a shift towards more subjective meanings in already grammaticalised intensifiers.

the grammatical function and gain a new lexical meaning; and a word can develop subjective meanings, but a subjective word cannot become less subjective.

After having discussed the preliminaries, we now want to see how particular factors of variation and grammaticalisation processes might correlate with one another in the history of particular intensifiers.

What makes the study of intensifiers particularly interesting is that there are so many of them; new words emerge, old ones die out, and others have been used for centuries. For example, the most ancient intensifiers that are still used today (to some extent) are *right*, *full(y)*, and *very*, which date back to the fifteenth century (C15). While *right* is still used as intensifier (especially in American English), *full* or *fully* have drastically decreased in frequency. *Very*, on the other hand, has been the most frequently used intensifier for centuries. During these centuries many new intensifiers and intensifying adverbs emerged; some are still used today, others have disappeared again. Still, the overall number of intensifiers seems to be constantly rising; as Fettiġ (1938) suggested, this steady increase can be observed in Middle English intensifiers already.

Hatte das Altenglische (nach Borst) 26 verschiedene Intensiva, so erhöht sich diese Zahl, trotz des Verschwindens einer Reihe von Intensiven, im Mittelenglischen bei Adj. u. Adv. auf 53 [...]. Im Neuenglischen finden sich nach Borst (festgestellt 1901) ca. 140 verschiedene Intensive, deren Zahl sich bis in die jüngste Gegenwart erhöht. (Fettiġ 1938: 47)

Questions that raise themselves, then, include why is the number of intensifiers growing? Why are there so many different expressions that can be used as intensifiers? How can 'new' intensifiers emerge? Where do they come from? Why would a new intensifier be chosen, or preferred, over an already existing one?

How did intensifiers change, and why? What mechanisms triggered, and what factors influenced, the lexical and semantic change of intensifiers? Why are some intensifiers used more often than others? What does frequency tell about the meaning of an intensifier? And above all, how to start the research?

1.4. Methods and set of data

The aim of this investigation is to understand the processes involved in the diachronic (i.e. historical) dynamics of intensifiers and intensifying adverbs. In order to address concrete questions we have to decide about a) the methods of research and analysis, and b) the dataset. The decisions on these issues will be presented in this section.

1.4.1 Methods

How to get an overview of the historical development of particular words? One possibility is to take a historical dictionary and look up these particular words and their functions, definitions, and origins. We would then have much information about the meaning of particular intensifying adverbs and adverbs from which particular intensifiers derive, but we would not get an overview of the dynamic changes in the use of intensifiers.

Thanks to computer technology we have other possibilities today. We can now look for a specific word in thousands of texts at one time. All sorts of 'text' from various sources (e.g. newspapers, fiction, academic writing, and also spoken language) are prepared in a computerised form so that it is possible for us to search for particular words or phrases within this large amount of text. This enables us to retrieve information about the frequency and distribution of particular words or word combinations. Since this is exactly what one needs in a diachronic study, the chosen method is a corpus-based research.

A corpus "is a set of texts in computer-readable form" (Wray, Bloomer 2006 (1998): 196). The text is *tagged*, which means that "the material in the corpus is marked (or coded) to make it searchable" (ibid.). With a specific search tool, which in this particular case was provided by the corpus, I could thus search for a certain intensifier and the computer generated its frequency list. More specifically I entered an intensifier or an intensifying adverb and looked for its occurrence in the corpus in

front of an adjective (e.g. 'very [adj]').¹⁵ This then yielded a list which showed the frequency of the intensifier and the frequency with which it co-occurs with particular adjectives, and, most importantly for a diachronic study, its distribution over a period of time. From this point on I could analyse the contexts, co-occurrences, and changes in frequency of a particular intensifier.

The *Corpus of Historical American English* (COHA), covering the period between 1810 and 2010, provided the main basis for the corpus research, allowing a study of intensifiers and their developments in American English in a period of 200 years. The COHA, compiled by Marc Davies, divides its data – which comes from American fiction, non-fiction, newspapers, and magazines – into decades. The data of this corpus can easily be compared to other corpora, such as the *Corpus of Contemporary American English* (COCA), which was used in this study especially to add current data (from the 1990s and 2000s) from spoken and academic language, which is not included in COHA. The frequencies of particular words are given in absolutes (i.e. the total number of occurrences in the corpus, or in a specific decade), as well as normalised per one million words (i.e. the number of occurrences of one particular word per one million words).¹⁶ Thus the frequency of an intensifier could be compared per decade, per million.

The next question, then, was which particular intensifiers to look for?

1.4.2 Dataset

Since I could not enter 'intensifier' into the search engine of the corpus and let the computer generate a list of intensifiers for me, I first had to make up my mind about which intensifiers I want to investigate. For this purpose I started to prepare a list on the basis of words which are classified as intensifiers in grammar books.

Quirk (1985: 590-1), for example, lists the following 'common amplifiers': (a) maximisers: *absolutely, altogether, completely, entirely, extremely, fully, perfectly,*

¹⁵ Actually I entered 'very [*j*]', [*j*] being the code for adjectives in this specific corpus

¹⁶ That is, the number of occurrences of a specific word in the corpus divided through the overall number of words in the corpus multiplied with one million (or the number of occurrences of one word in one particular decade divided through the number of words in this particular decade, multiplied by one million). This means, that, technically speaking, a word that occurs once in three million words, occurs less than one time in one million words (0.33).

quite, thoroughly, totally, utterly; in all respects; most, (b) boosters: *badly, bitterly, deeply, enormously, far, greatly, heartily, highly, intensely, much, severely, so, strongly, terribly, violently, well; a great deal, a good deal, a lot, by far*. Emphasisers, which express ‘the semantic role of modality’, can function as intensifiers as well (when they add to the force of a gradable¹⁷ adjective); common emphasisers include adverbs such as *actually, certainly, clearly, definitely, indeed, obviously, plainly, really, surely, for certain, for sure, of course* (Quirk 1985: 583(a)¹⁸). Of course, Quirk (1985: 590) points out that it is difficult to make clear-cut distinctions between classes, or subtypes, of intensifiers, that some intensifiers can be used for different effects, and that speakers obviously vary in their use of intensifiers.

These difficulties in the classification of intensifiers became clear to me when I took up a different grammar book. In Sinclair’s (1992) *English Grammar* the “list of submodifiers used to intensify the meaning of adjectives” comprises rather different expressions, such as *amazingly, awfully, dreadfully, extraordinarily, horribly*, and many more (cf. 1992: 93 (2.148)). Sinclair makes a distinction between submodifiers that intensify qualitative¹⁹ adjectives and ‘adverbs of degree’, which “give more information about the extent of an action or the degree to which an action is performed” (1992: (6.45)), i.e. verb intensifiers. Among these are ‘emphasising adverbs’, like *absolutely, completely, entirely, just, outright, perfectly, positively, purely, quite, really, simply, totally, truly, utterly* (6.49).

Sinclair’s list of adverbs of degree includes many adverbs of Quirk’s list of amplifiers; Sinclair’s emphasising adverbs resemble Quirk’s maximisers. While Quirk focuses on distinctions between amplifiers and downtoners, and their subtypes, Sinclair puts more attention to the co-occurrences of intensifiers with either adjectives (i.e. adverbial submodifiers with intensifying function) or verbs (i.e. adverbs of degree).

As mentioned in the beginning the present paper is concerned with amplifiers that modify adjectives (or other adverbs); for this purpose we had to create a

¹⁷ Normally they co-occur with nongradable adjectives.

¹⁸ The adverbs listed here refer to group (a) emphasisers, which comment on the truth of what is being said; group (b), emphasisers expressing the speaker’s assertion that his words are the truth, does not concern us here. This group would include *frankly, honestly, literally, simply, fairly, just* (cf. Quirk 1985: 583).

¹⁹ Qualitative adjectives (e.g. *friendly* or *frightened*) as opposed to classifying adjectives (e.g. *financial* or *foreign*); see e.g. Sinclair 1992, chapter 2 for a list of qualitative (2.28) and classifying (2.30) adjectives.

distinct list. The set of data prepared for this study consists of a list of one-word expressions, which directly precede the adjective they intensify;²⁰ this list of adverbs is partly based on Sinclair's intensifying submodifiers, in the sense of adverbs used to intensify adjectives, and partly on Quirk's amplifiers, and the notion of 'scaling upwards from an assumed norm', enriched by some expressions from Bolinger's (1972) extensive list of intensifying adverbs.²¹

The initial dataset, excluding downtoners and verb intensifiers, then, built the basis for the corpus research. The first step was to find out which intensifiers are used how often and how they are distributed. In this process it turned out that it might be useful to impose another selection criterion on the set of intensifiers.

The COHA contains about 400 million words; consequently the question of significance arises. So what is a 'significant' number of occurrences? An adverb that occurs once or twice in a decade in front of a handful of adjectives does not tell much about its extent of grammaticalisation; it might have been coined by some creative writer, or manipulative politician, but this is not a reliable source for investigating grammaticalisation processes. If the same adverb occurred twenty times in the following decade, this might make things interesting again. However, the data of the corpus are not evenly distributed over the decades, which means that the absolute numbers of occurrences allow only relative comparison.

In order to get an overview of the diachronic change of each intensifier the frequencies (i.e. the number of their occurrences) had to be compared per decade and per million (i.e. normalised). The last restriction on the dataset, thus, was one concerning the minimum frequency of an intensifier per decade. Consequently, those intensifiers which occurred less than (or no more than) five times per decade throughout the whole period of two hundred years were excluded.²²

The final list of intensifiers for further research comprises intensifiers and intensifying adverbs, which can be classified as (a) amplifiers, (b) modifiers of adjectives, and (c) occurring in front of an adjective more than five times in one million words in one decade: *absolutely, altogether, awful, awfully, completely,*

²⁰ As compared to intensifying adverbs that come after the adjective, such as e.g. *indeed*.

²¹ Bolinger, Quirk, and Sinclair are also referred to by Partington (1993: 179) for "[l]ists of some of the lexical items classified as intensifiers".

²² Five times per million still seems to be an 'insignificant' number, but it already excludes a large number of intensifying adverbs; this is why I did not want to raise the minimum number of occurrences. I did not use any statistical tools.

*damned, eminently, entirely, exceedingly, extraordinarily, extremely, highly, incredibly, infinitely, intensely, mighty, overly, particularly, peculiarly, perfectly, real, really, remarkably, singularly, surprisingly, terribly, thoroughly, totally, truly, utterly, very, wonderfully.*²³

A frequency list of these adverbs occurring in front of an adjective and a list of collocations, which can be found in the appendix, built the basis for the analysis. We wanted to see in how far the distribution of collocations and the semantic relations between head and modifier would help to determine the extent of grammaticalisation, or maybe even the degree of semantic bleaching.

Concrete research questions can be formulated as follows:

- 1) How did intensifiers and intensifying adverbs change in the last 200 years in American English? Did their meaning change? Did their usage frequency change? Did new intensifiers/intensifying adverbs emerge?
- 2) What might have triggered these changes? Grammaticalisation processes, speakers' creativeness, or even some random selection processes in the speakers' minds, which lead to change without anyone intending it?
- 3) Can any common patterns be observed in the development of intensifiers? Patterns concerning the semantic origin of an intensifier or its semantic relation to the head(s) it collocates with? Is there a way to predict what new intensifiers might emerge and how existing ones will develop further?

In the next chapter we will develop hypothetical patterns of change, based on grammaticalisation theory and on previous work. After that we will see whether or not these expectations are confirmed by the corpus results.

²³ For their frequencies see Appendix.

2. Expected patterns of change

On the basis of the parameters discussed in 1.2, we will now develop hypothetical assumptions about the paths of change of different intensifiers. The main focus lies on the extent of grammaticalisation, which will be determined by factors of frequency and distribution, and the range and types of collocates. Given the unidirectionality of grammaticalisation processes we can assume a semantic shift towards a) more general meanings, and b) more subjective meanings.

The first distinction we made was one concerning the degree of intensification; we distinguished boosters from maximisers. There is little change to expect in maximisers, because they form a relatively closed class of words. Maximisers all have the same underlying pattern of intensification, that of totality or completeness; they can be expected to have similar collocates and to be relatively widely distributed. Boosters, which can intensify to a high or to a very high degree, are expected to differ in their developments in accordance with their varying patterns of intensification and their extent of grammaticalisation.

2.1 Highly grammaticalised intensifiers

We assume that highly grammaticalised intensifiers are widely distributed, and have a wide range of collocates. They are prototypical members of the category of intensifiers, and their lexical meaning is probably lost, or at least drastically bleached, or even subjectivised.

The dominant patterns in the history of highly grammaticalised intensifiers are thus expected to be:

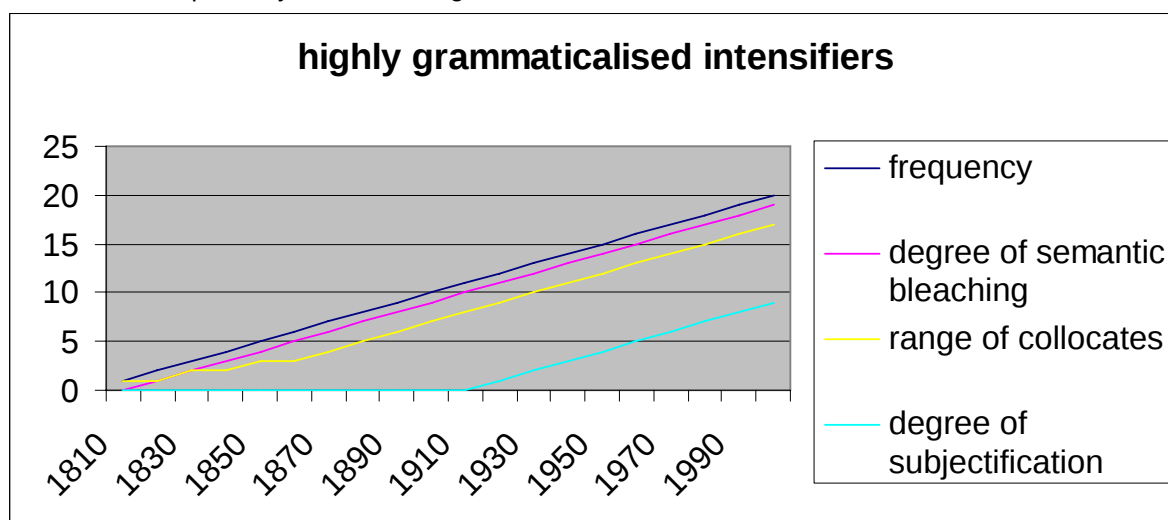
- 1) Rise in frequency through decategorialisation > a grammatical item will be used more often than a lexical one;
- 2) Semantic bleaching > loss of meaning > purely functional/grammatical item;

- 3) Wide range of collocates > co-occurrence with a large number of different adjectives; and possibly
- 4) Shift towards subjective meaning > the grammatical item might gain an evaluative function for speakers to express their attitudes toward propositions being made.

These patterns strongly correlate and interact with each other; rise in frequency is the result of an item becoming more grammatical, semantic bleaching is the result of frequent use, a wider range of collocates is the result of semantic bleaching, and subjectification is the result of all the other patterns together. The expected pattern of change for highly grammaticalised intensifiers can be illustrated as in Figure 2.

Figure 2 Pattern 1: expected development of highly grammaticalised intensifiers.

Semantic bleaching, rise in frequency, and collocational freedom correlate with one another at the beginning of the grammaticalisation process. At a certain degree of grammaticalisation, the items develop a subjective meaning.



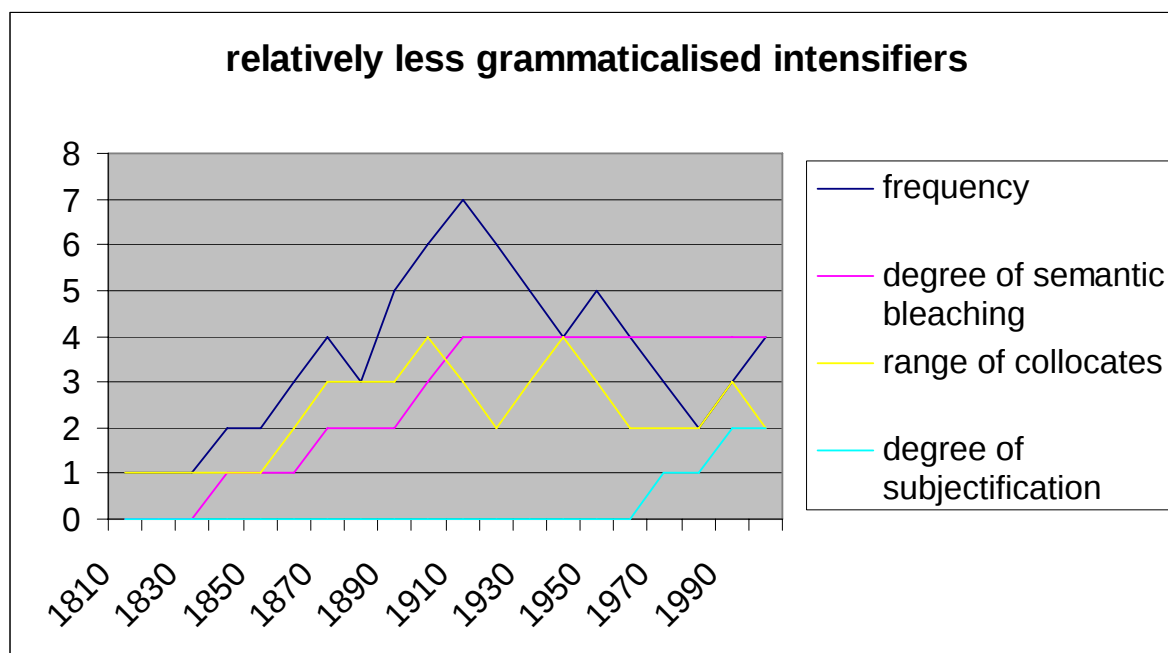
2.2 Relatively less grammaticalised intensifiers

The second group of words can be assumed to be more restricted in their collocability and less bleached semantically. They intensify through implication of

their lexical meaning, and can be seen as the result of processes driven by the speaker's expressive/communicative needs, or as products of linguistic innovation. Therefore this group of words is expected to have undergone more fluctuations in frequency and distribution. Their lower degree of grammaticalisation restricts the range of adjectives it can modify. Subjectification may or may not be an issue at a later point in the grammaticalisation process, when the meaning is bleached to a certain extent (see Figure 3, below).

For relatively less grammaticalised intensifying adverbs there are two ways to develop further: a) they become more grammaticalised and develop into pure intensifiers, or b) they stay in the present position and are used as lexical as well as grammatical items. When we suppose that grammaticalisation processes are unidirectional/irreversible, there is no other way for a relatively less grammaticalised word to develop. Once it has gained a grammatical function it is no purely lexical item anymore, and cannot become one again. This means that it either has to be used in both contexts, or it must grammaticalise further.

Figure 3 Pattern 2: expected development of relatively less grammaticalised intensifying adverbs. Less bleached, frequency fluctuations, collocational restrictions.



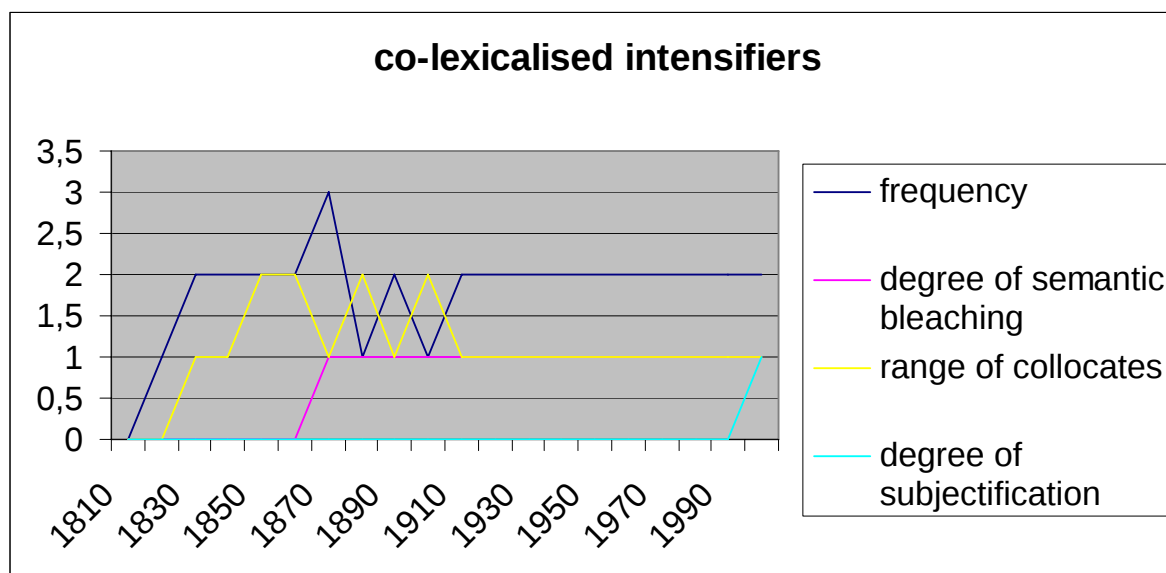
2.3 Co-lexicalised and specialised intensifiers

Co-lexicalised intensifiers are strongly restricted in their collocability, and can therefore be expected to be rather low in frequency. They are specialised in their meaning and might be used with one particular adjective only, but in this collocation they will be used regularly (see Figure 4).

The co-lexicalisation with a particular adjective might have brought about the intensifying meaning through the pattern of semantic-feature-copying. Peters (1992: 542) considers semantic repetition to be “an intermediate stage between the initial state of selectional restrictions and far-reaching collocational freedom standing at the end of the process”. This means that an adverb might have gained the status of intensifier through co-lexicalisation and might then develop further and become used with other collocates in the function of an intensifier, without semantic relation to that collocate.

Figure 4 Pattern 3: expected development of co-lexicalised intensifiers.

Specialisation, restriction to particular adjective(s), co-lexicalisation, relatively low/stable frequency



2.4 Lexical intensifying adverbs

Adverbs of this last group will not be considered in the present study because they occur not more than five times per one million words. They are either the products of creative and innovative speakers or writers, or they are only at the very beginning of their grammaticalisation process. They are probably used more often in spoken language but have not yet found their way into written language due to register restrictions or because they simply have not been ‘conventionalised’ in their function so far. Examples for lexical intensifying adverbs include: *absurdly, amazingly, downright, excruciatingly, fearfully, frightfully, horribly, insanely, ridiculously, weirdly*. The reason why we regard other (‘colloquial’) intensifying adverbs such as *damned* or *real* in this paper is due to their frequencies; the rise in frequency of such adverbs might, however, just reflect the increased informality of written language.

3. Presentation and analysis of corpus results

In order to determine the extent of grammaticalisation we first divided the dataset into smaller groups of words which share some common (synchronic) characteristic, such as their (original) pattern of intensification. Then we examined the smaller groups more closely according to their diachronic development. The list of frequencies and a list of collocates, both of which can be found in the appendix, were used to retrieve information about the change in use and semantics of the intensifier.

We can generally assume a shift from adverb to intensifying adverb to intensifier. An adverb, having undergone grammaticalisation, becomes used in the grammatical function of intensifying. The lexical meaning is back-grounded or weakened and the grammatical function is for-grounded; in this process the lexical adverb becomes an intensifying adverb. An intensifying adverb can be further grammaticalised, whereby the original lexical meaning would be weakened even

more until it may be totally bleached, i.e. lost. This could account for the development of an intensifying adverb into an intensifier, which is exclusively used as grammatical/function word.

A grammatical item is assumed to be used more often, or more widespread, than a lexical one, because while the lexical word (here: the adverb) is restricted by a specific meaning to a specific context, the grammatical item (here: the intensifier) can appear in any adjectival phrase (theoretically).

A rise in frequency would then suggest a higher degree of grammaticalisation, a relatively stable frequency performance would mean a possible co-lexicalisation, and a decrease in frequency would hint at a relatively less grammaticalised intensifying adverb which might have been replaced by some new intensifying adverb. Also the range of collocates can be assumed to correlate with the extent of grammaticalisation in that a wider range of collocates suggests a higher extent of grammaticalisation, and the type of collocates (i.e. the specific adjectives and their meaning) may give a hint at the extent of semantic bleaching. We assume three possible patterns of change:

- 1) Semantic-feature-copying > co-lexicalisation > further grammaticalisation?
- 2) Semantic fields and underlying patterns of intensification > relative grammaticalisation > further grammaticalisation?
- 3) Intensifying adverbs > further grammaticalisation > semantic bleaching > further development towards more subjectivity?

Co-lexicalised and relatively less grammaticalised intensifiers are assumed to be at the beginning of their grammaticalisation process and can be expected to grammaticalise further.²⁴ Highly grammaticalised intensifiers are assumed to have reached the point of absolute bleaching and can only be expected to undergo (further) subjectification.²⁵

²⁴ If not, we have to ask why and whether it is possible for a word to 'survive' without passing the whole path of grammaticalisation (or whether it will 'fossilise', being stuck in evolution).

²⁵ Most of them will already be subjectivised to some extent as the notion of degree and the evaluation according to an (abstract) norm is in itself a subjective expression of speaker attitude. Further subjectification could result in another category shift, from intensifier to emphasiser, as

For closer examination the dataset was divided into the following groups:

- 1) Maximisers; totality intensifiers: *absolutely, altogether, completely, entirely, perfectly, thoroughly, totally, utterly*
- 2) Modals: *really, truly*
- 3) Comparatives: *extraordinarily, eminently, particularly, peculiarly, remarkably, singularly*
- 4) Telic²⁶: *exceedingly, extremely, incredibly, infinitely, overly*
- 5) Non-telic: a) *awful, awfully, terribly*; b) *intensely, mighty, surprisingly, wonderfully*
- 6) Taboo: *damned, real*²⁷
- 7) Degree: *highly, very*

Groups 2) to 7) are boosters; the last group, degree intensifiers, can be assumed to be highly grammaticalised due to their reduction to the semantic role of degree. Whether some of these intensifiers are co-lexicalised cannot be determined at this stage; a first glance at the list of collocations suggests the following possible candidates (which have only one or two frequent collocates): *altogether* different/new; *damned* good; *eminently* successful; *overly* optimistic/concerned; *singularly* free/beautiful.

The frequency distribution of the various groups of intensifiers is illustrated in Figures 5 to 11. The findings were then ordered according to the expected patterns outlined in chapter 2 – highly grammaticalised, relatively less grammaticalised, and co-lexicalised intensifiers.

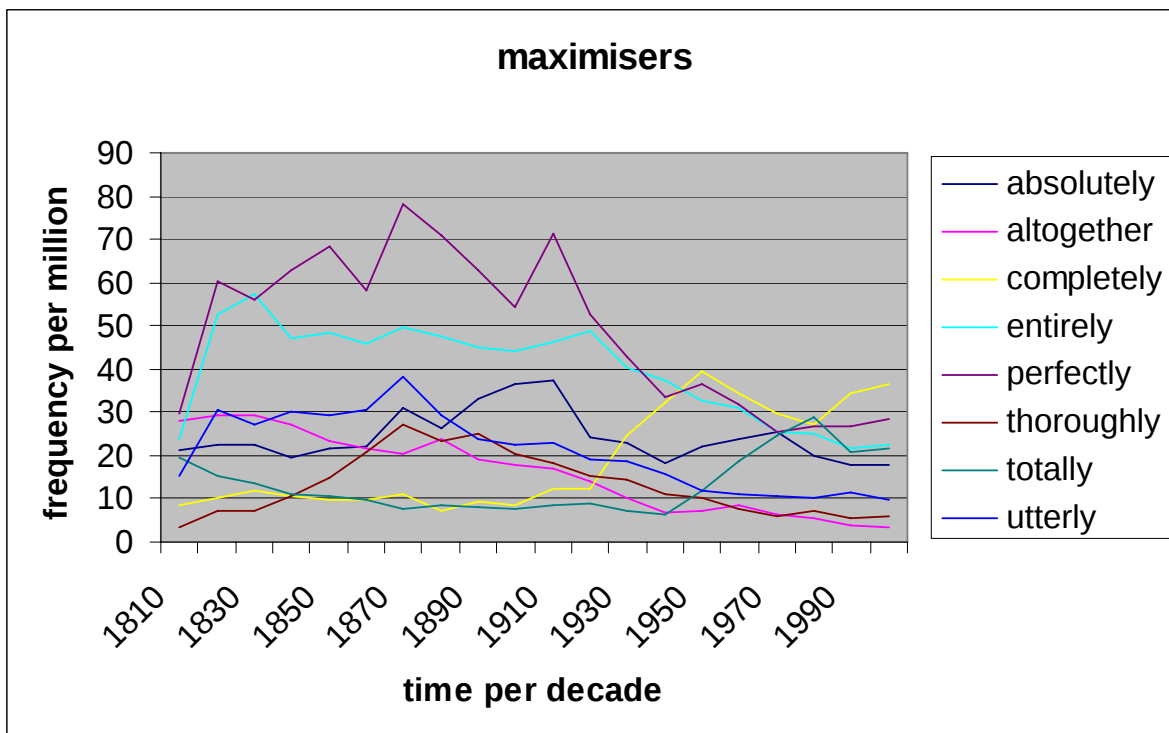
suggested by Athanasiadou (2007), who observes such a shift in maximisers like *completely, absolutely, totally*, and *perfectly*. Examples, as given in Athanasiadou 2007: 562 (ex. 13-16), include: “We understand, don’t we? – Oh, absolutely.”, “Do you let them travel alone? – Absolutely not.”, or “He’s in business, right? – Totally.”

These intensifiers seem to have developed an emphasising or reinforcing function, and can stand on their own as a response towards a proposition being made; “[t]he construal of the speaker is maximally subjective allowing the hearer to draw inferences”. “They are used independently as answers, being mostly emphatic, providing speaker-oriented claims about extreme ends of scales” (Athanasiadou 2007: 562).

²⁶ In the sense of overreaching a certain point or a norm

²⁷ In the sense of colloquialising written language; *real* as a colloquial item in spoken language, especially used in American English, has seemingly found its way into written language, which suggests an increasing informality of written language (which would have been a ‘taboo’ some hundred years ago, and still might be to conservative thinkers today).

Figure 5 Frequency distribution in COHA: i) maximisers



Only *completely* has actually risen in frequency, while all the other maximisers decreased or remained relatively stable (Figure 5). *Totally*, after having decreased at the beginning of C19, had a peak in the 1980s and now occurs as often as in the 1810s. Is the rise of *completely* responsible for the decline of *perfectly* and *entirely*, which both have been used very frequently in the nineteenth century?

In the group of modals *really* seems to have replaced *truly* (Figure 6), and among comparatives *particularly* has risen dramatically and *extraordinarily* has increased as well, although the relatively stable frequency rate in the twentieth century may suggest a co-lexicalisation (Figure 7).

Figure 6 Frequency distribution in COHA: ii) modals

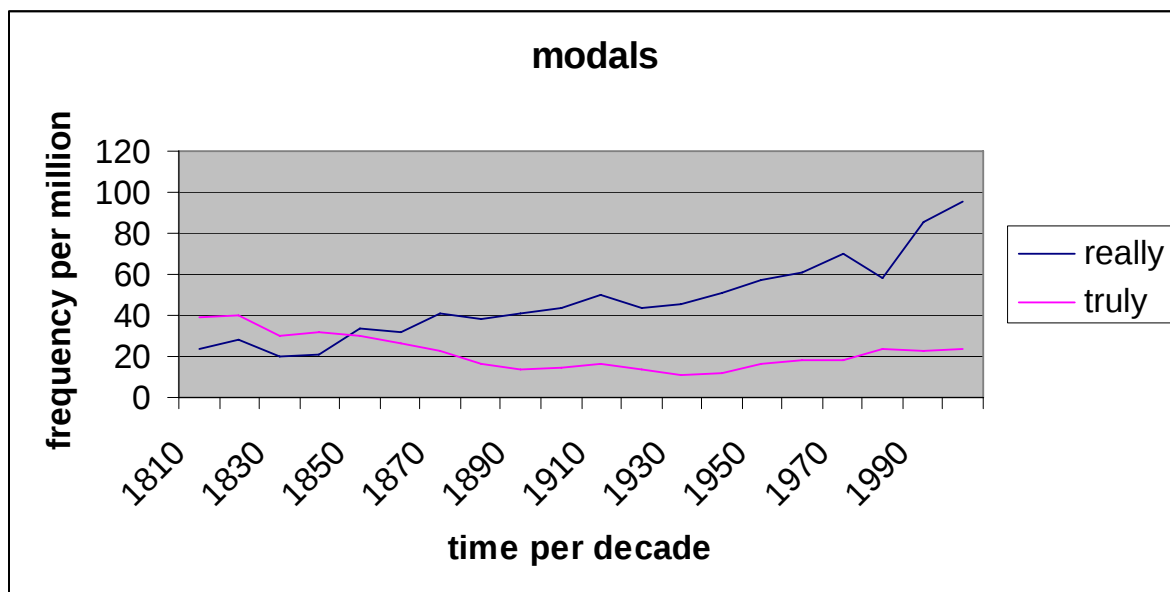
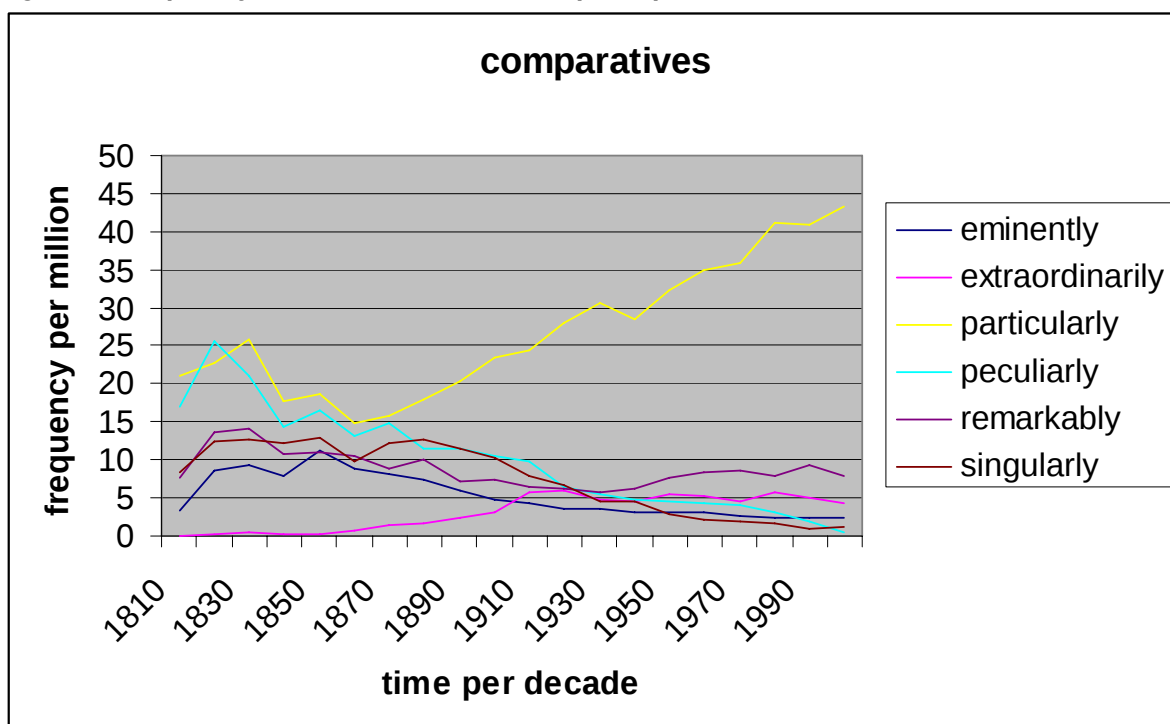


Figure 7 Frequency distribution in COHA: iii) comparatives



Extremely is, and has been, the most frequent telic intensifier (see Figure 8); we can also observe a rise in frequency in *incredibly* and *overly*. The *awfully/terribly* group of non-telic intensifiers (Figure 9a) shows a general decrease in frequency which suggests a possible replacement by other non-telic intensifying adverbs, possibly from a different semantic field. Among the other non-telic intensifiers (Figure 9b) only *surprisingly* shows an upward trend.

Figure 8 Frequency distribution in COHA: iv) telic intensifiers

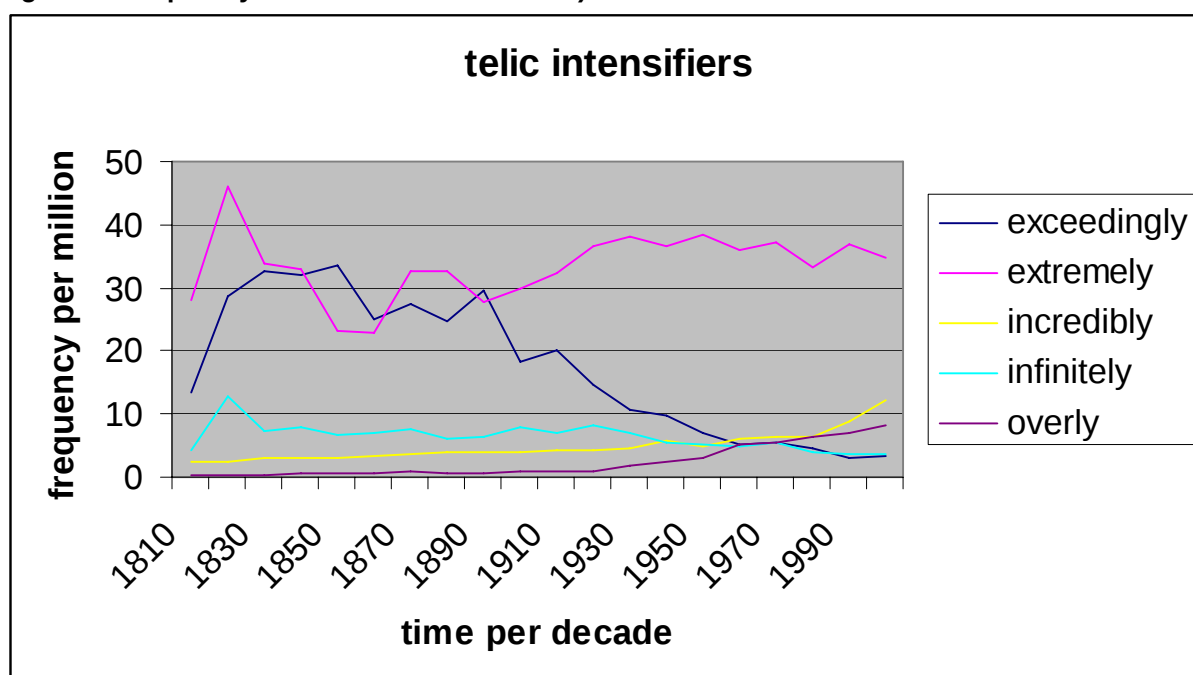


Figure 9a Frequency distribution in COHA: v) non-telic intensifiers

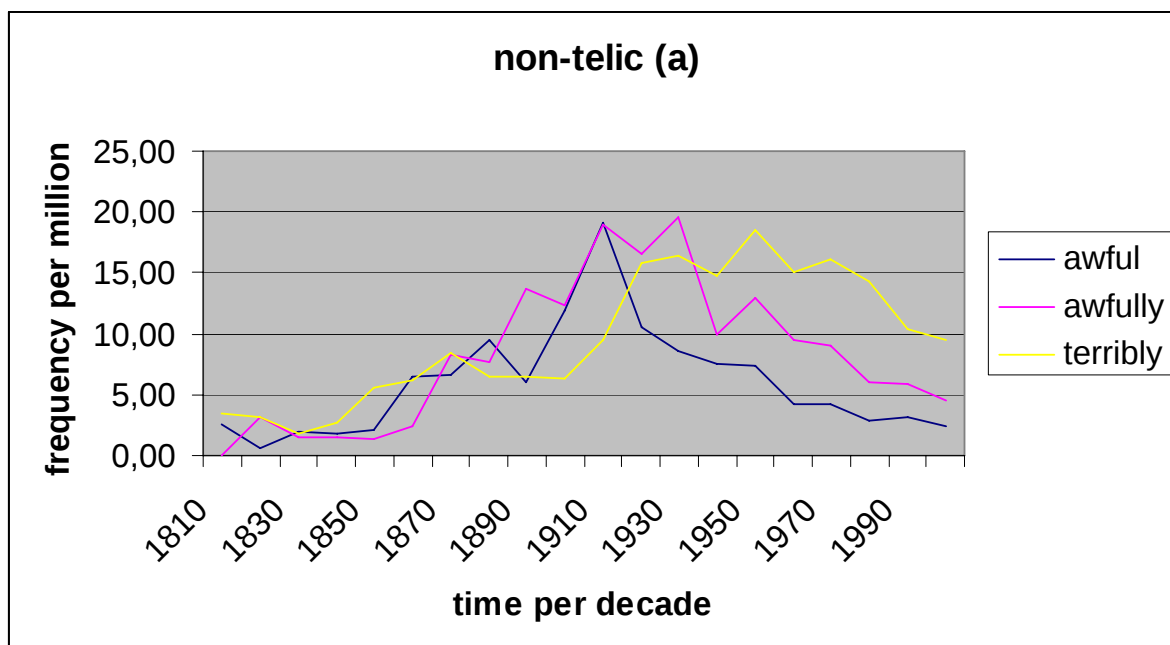


Figure 9b Frequency distribution in COHA: v) non-telic intensifiers

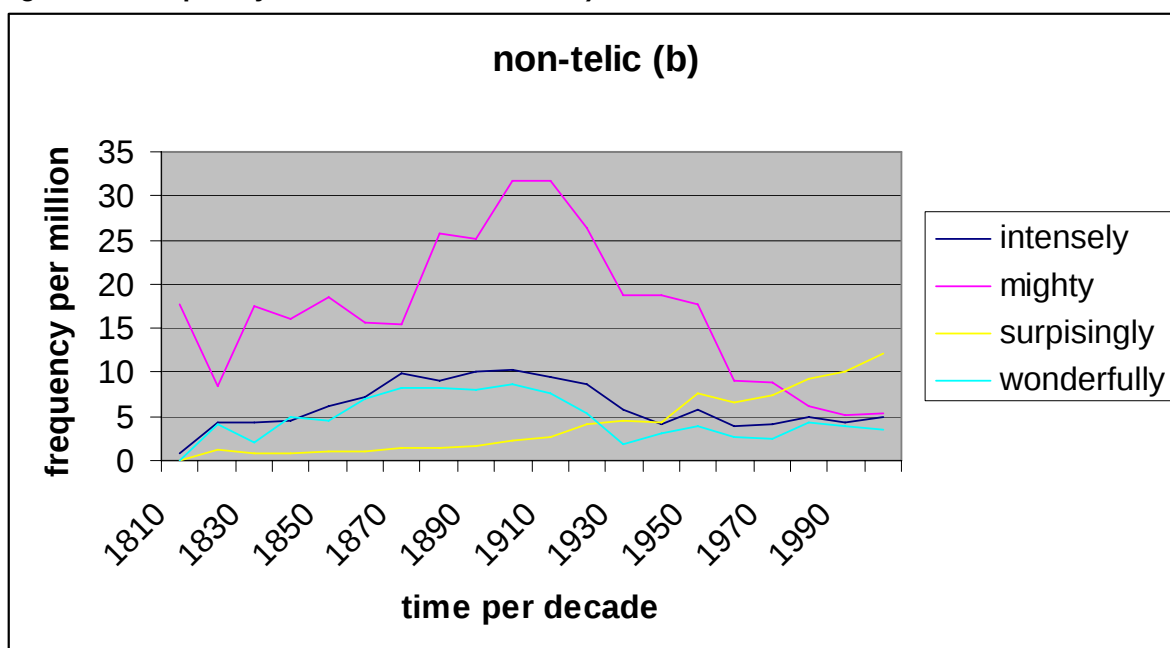
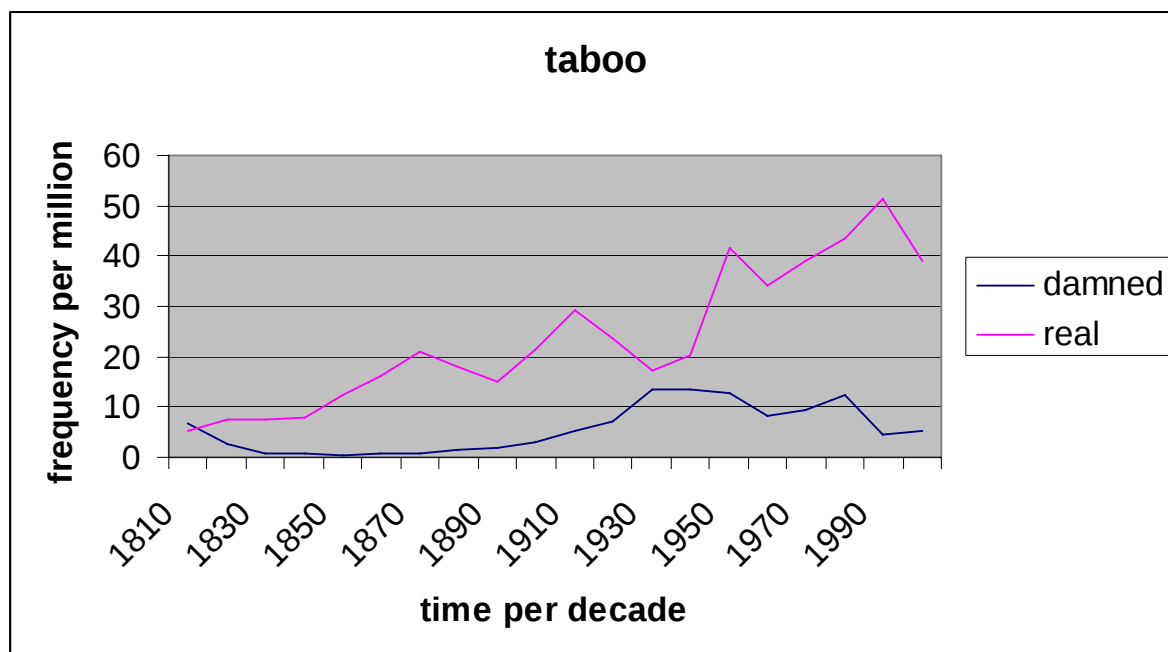


Figure 10 Frequency distribution in COHA: vi) taboo intensifiers



Real and *damned*, both classified as taboo intensifiers (*real* because of its informality and *damned* because of its semantics), have both risen in frequency in written language. While *real* is relatively prominent, despite its informality, probably due to its modal function, *damned* possibly functions as co-lexicalised intensifier with *good*.

Highly has remained relatively stable, despite a decrease in frequency at the end of the nineteenth century, and, interestingly enough, *very* is on the decline despite its status as most grammaticalised, most bleached, and by far most frequent, intensifier in English.

Figure 11a Frequency distribution in COHA: vii) degree: *highly*

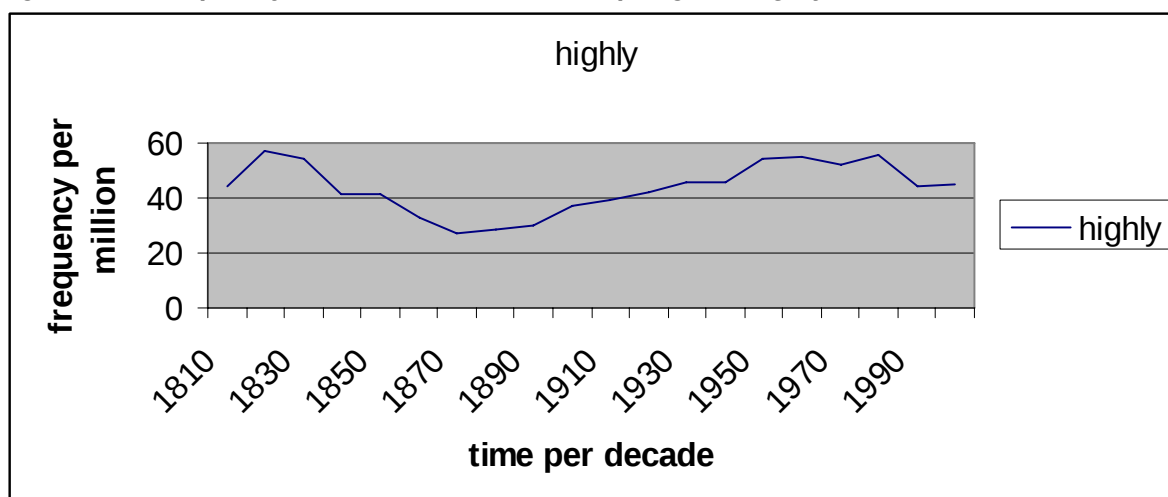
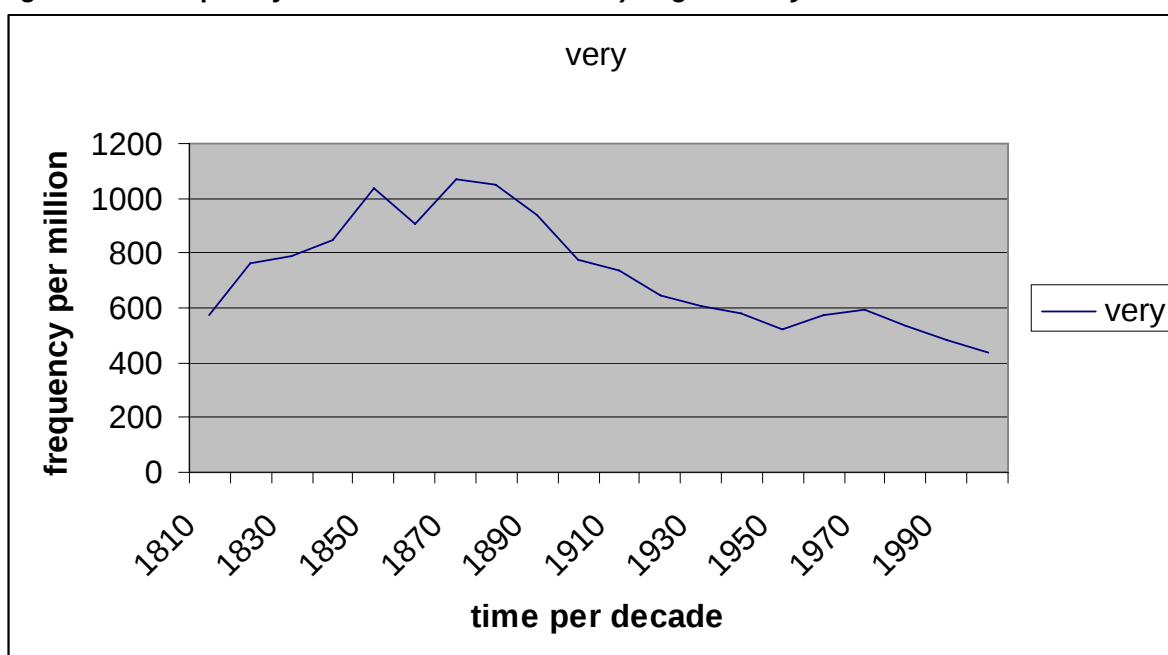


Figure 11b Frequency distribution in COHA: vii) degree: *very*



3.1 Highly grammaticalised intensifiers

We took a rise in frequency as an indicator for intensifiers and intensifying adverbs to become (further) grammaticalised, and identified two different groups: a) those that seem to have entered their grammaticalisation process at the beginning of the

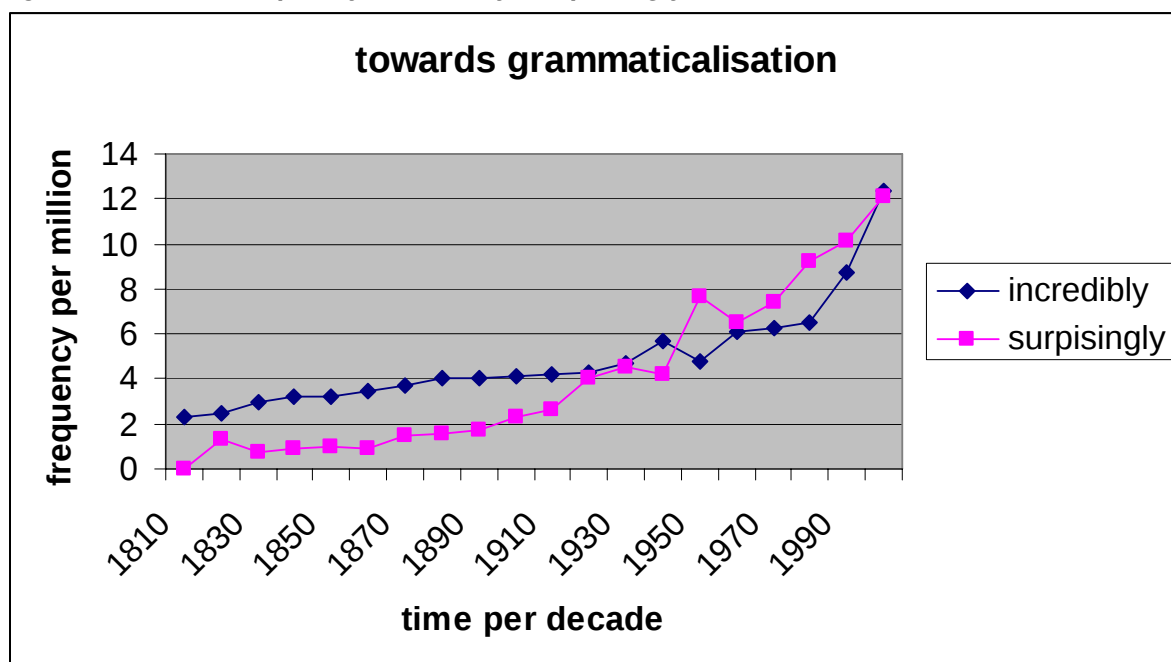
nineteenth century (C19), and b) those that have already been frequently used in C19 and still rose in frequency in the last two hundred years. These two groups were then examined in terms of (the loss of) their meaning, their range of collocates and their degree of subjectification.

3.1.1 *Incredibly* and *surprisingly*

Incredibly and *surprisingly* are still low frequency intensifiers, but their frequency has risen from less than five to more than ten occurrences per million within one century (see Figure 12). The reason for this is most probably their use as intensifying adverb; they have been associated with the grammatical function of intensification, and are consequently used more often, just as it would be predicted by grammaticalisation theory.

However, even if they are grammaticalised in the sense of having gained a grammatical function, this does not necessarily mean that they are semantically bleached. They still seem to function as intensifier by implication of their original meaning, i.e. they have gained a grammatical function but not (yet) at the cost of their lexical meaning. Consider examples (2) to (7) in this respect, which are taken from COHA.

Figure 12 Rise in frequency: *incredibly*, *surprisingly*



- (2) It was remarkable how little had changed, but the students seemed *incredibly* young.
- (3) He was thin but *incredibly* strong.
- (4) Her voice was *incredibly* sweet.
- (5) The minister's voice was strong and *surprisingly* cheerful.
- (6) It was simple, *surprisingly* simple.
- (7) He sounded *surprisingly* sympathetic.

Examples (2) to (4) can easily be transformed into sentences that refer to the lexical meaning of *incredibly* and still have an intensifying meaning, such as:

- 2a. You wouldn't believe how young the students seemed (to me).
- 3a. When you saw him you wouldn't believe how strong he was.
- 4a. You wouldn't believe how sweet her voice was.

In examples (5) to (7), *surprisingly* can be similarly paraphrased as:

- 5a. The minister's voice was strong; and I was surprised how cheerful it was.
- 6a. It was simple, I was surprised how simple it was. (/I didn't expect it to be that

simple.)

7a. I was surprised how sympathetic he sounded. (/To my surprise, he sounded (very) sympathetic.)

Both adverbs have become intensifying adverbs, but they have not been semantically bleached so far. What about their range of collocates?

Surprisingly, indeed, co-occurs with more adjectives, and more often with each, in the twentieth century (C20); it starts to co-occur more than five times with *short* in the 1910s, in the 1920s *good* is the most frequent collocate, and in the 1990s it collocates with more than seven adjectives, more than five times with each.

Incredibly co-occurs most often with *short* throughout C19; only in the 1940s it starts to co-occur more than five times with other adjectives, among them are *small*, *beautiful* and *complex*. In the 1990s the most frequent collocate is *strong*, in the 2000s it is *important*.

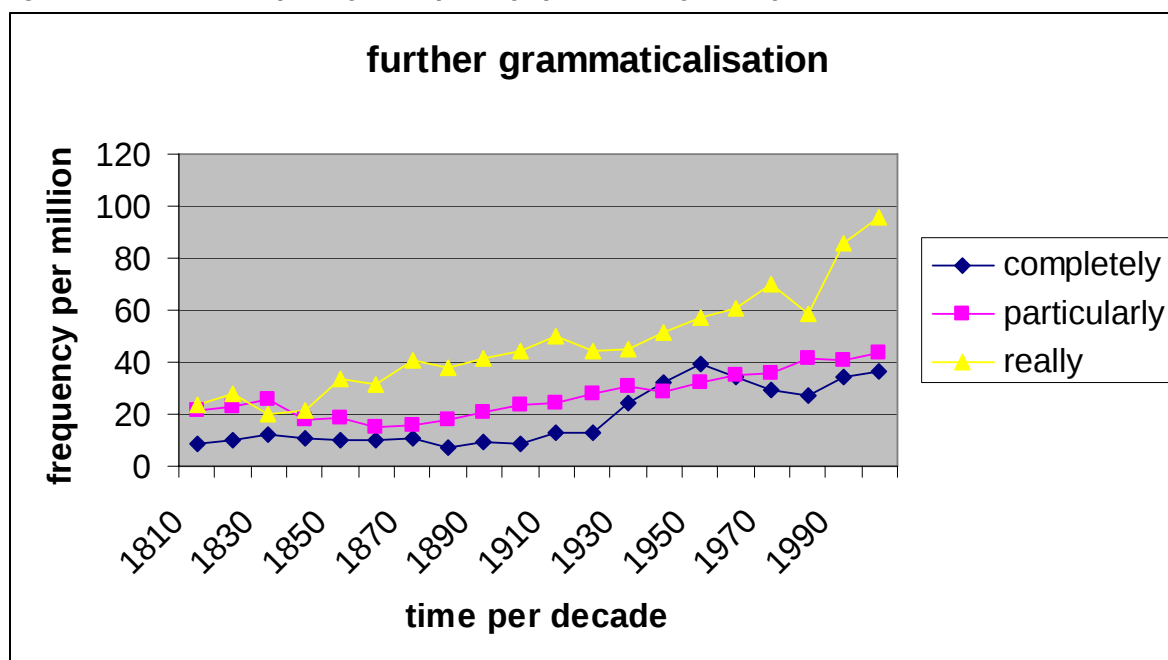
Both intensifying adverbs obviously have widened their range of collocates. While subjectification in grammaticalisation is generally seen as a later development of an already grammaticalised word, in the case of intensifiers a certain degree of subjectivity is already involved in the beginning of the grammaticalisation process. As can be seen in the examples (2) to (7) above, and in their paraphrases, *incredibly* and *surprisingly* both function as expression of the speaker's evaluation of a particular situation.

3.1.2 *Completely, particularly, and really*

Completely has risen from about ten occurrences to almost forty occurrences per one million words. It has always co-occurred with several adjectives; instead of widening the range of collocates it rather developed a strong collocation with *different* in the second half of C20. *Completely different* occurs only six times throughout C19, and 102 times in the 2000s alone (389 times in C20)²⁸.

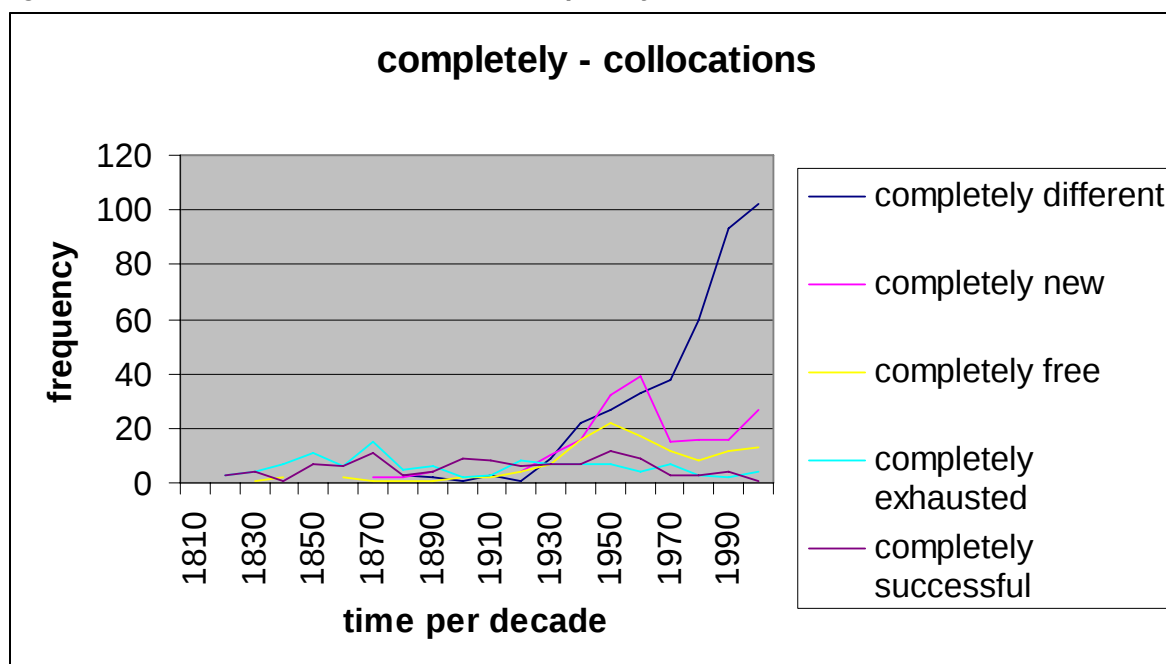
²⁸ The number of collocates or collocations is given in absolutes (whether per decade, per century, or in the whole corpus is explained in context).

Figure 13 Rise in frequency: *completely*, *particularly*, *really*



In C19 the most frequent collocates of *completely* are *bewildered* and *exhausted*; in C20 *completely* starts to co-occur more often with more adjectives. In the 1940s the most frequent collocates are *new*, *free*, *happy*, *independent* (each co-occurs more than ten times with *completely*), and *different* (more than twenty co-occurrences); from the 1970s onwards *completely different* is the most frequent collocation of/with *completely*. The five most frequent collocates in the whole period are *different*, *new*, *free*, *exhausted*, and *successful*; their distribution is given in Figure 14.

Figure 14 Distribution of collocations: *completely*



Particularly was classified as a comparative, in the sense of “to a higher degree than is usual or average” (COED 2004, s.v. *particularly*). It definitely has an intensifying function but is also often used in its other meaning of “in particular; specifically” (ibid.), in which it specifies the context. The intensifying function seems to involve a combination of these two meanings; *particularly* emphasises the quality of the head in a specific context. In example (8) *particularly* can be understood as modifying *important* to a high degree, but also in a specific context; the effort is generally (highly) important but it is even more so in the given context.

- (8) Public outreach and interaction is critical in order to avoid repeating the controversies associated with genetically modified organisms. This effort is *particularly important* in California, where environmental issues are taken more seriously than in many other regions. (COHA)

The rise in frequency of *particularly* is probably the result of it having two different grammatical functions, intensifying and specifying. It is, however, hard to tell whether the grammaticalisation process leads to a more frequent use as intensifier, or rather as specifier; most probably it will grammaticalise further in both functions.

Really has risen most dramatically; it already occurred more than twenty times at the beginning of C19 and now is used almost a hundred times in one million words. In C19 it co-occurs with several adjectives (e.g. *fine, glad, necessary, beautiful, happy, great, important*) more than ten times per decade; in the 1850s it starts to co-occur with *good* (more than twenty times), which is the most frequent collocate today (255 co-occurrences in the 2000s). However, the collocation with *good* does not tell much because *good* is a very frequent adjective and is modified by many different intensifiers. The second frequent collocate in the 2000s is *bad* (102 co-occurrences), which started to co-occur with *really* more than twenty times in the 1950s. *Really* does not have any collocational preferences, today there are several adjectives that are modified more than fifty times by *really* (such as *important, great, big, nice, hard*). *Really* definitely is highly grammaticalised, however not as semantically bleached as *very*. It has gained an important status in the category of intensifiers, but in many contexts it still intensifies through the underlying pattern of truth assertion. In other contexts it has a boosting function which suggests a certain degree of semantic bleaching.

- (9) His hopes are *really* humble. (COHA)
- (10) You're *really* sick. (COHA)
- (11) Others may be *really* cruel (COHA)
- (12) It made me *really* mad (COHA)

In the above examples the replacement of *really* by 'it is true that' does not always result in the same meaning.

- 9a. It is true that his hopes are humble.
- 10a. It is true that you are sick.
- 11a. It is true that others may be cruel.
- 12a. It is true that it made me mad.

While the paraphrase of (9) would function, all the other examples lose their intensifying meaning in a paraphrase. 10a would function if A thinks that B is lying and then recognises the truth in the assumed lie, but (10) suggests a different reading, rather towards 'you're seriously ill', or 'you're very sick'. Example (11) also

suggests a purely intensifying meaning rather than a truth asserting one, and in (12) the syntactic position of *really* (i.e. its position within the sentence) also implies a bleached boosting function, rather than a modal one: 12a would function as a paraphrase of 'It really made me mad', but through the position directly in front of the adjective *mad*, *really* assumes an intensifying meaning on a scale of degree.

While *completely* more than doubled in frequency and developed a strong collocation with *different*, *really* quadrupled, has a wide range of collocates and is used as a semantically bleached intensifier next to its function as modal intensifier. *Really* can be said to be the most grammaticalised intensifier of this group, and its further increase in frequency might suggest a further increase in subjectivity. Next to the co-occurrences with *good*, *great*, and *nice*, which are frequently used and relatively common, not very 'expressive', adjectives, in the 1990s and 2000s *really* co-occurs, for instance, with *cool*, an adjective which is in itself subjective in a way because while there can be a common ground on what is good or nice, the evaluation of what is 'cool' is more differentiated and more dependent on personal/subjective evaluation or attitude.

- (13) Since I've lived for only nineteen years, Hodgkin's disease has been my greatest challenge, but the first coherent thought to enter my head after that overwhelming shock will long be my greatest triumph: Well, Sinéad O'Connor has no hair, and she's *really cool*. (COHA)
- (14) Star Wars devised a novel equation: here was a film every teenage boy wanted to see a dozen times. Lucas spoke, from his bionic heart, to the American boy's love for shiny gadgets, spiffy uniforms, authoritative-sounding technotalk and a hot rod that shoots *really cool* laser blasts. (COHA)

A paraphrase of the examples above, as it seems to me, would be something like 'I think it is true that x', as in

13a. I think it is true that Sinéad O'Connor is cool.

The speaker somehow positions herself as one of those people who think that Sinéad O'Connor is cool. It is, indeed, rather common that "subjective opinions which in fact

are best expressed by e.g. *I think*, are concealed behind objective-seeming expressions like *surely*” (Traugott 2002: 24²⁹), or as in this case *really*.

Subjectification might have shifted *really* towards an even more subjective meaning, which would result in an intersubjective meaning. Traugott argues that meanings, “once subjectified, may become more centered on the addressee” (Traugott 2002; 2003; 2007: 300).

[I]ntersubjectivity is most usefully thought of in parallel with subjectivity: as the explicit, coded expression of SP/W’s attention to the image or “self” of AD/R in a social or an epistemic sense (Traugott 2002: 22)

The speaker not only defines its own position but s/he is also tries to appeal to, or even influence, the listener’s position. “Subjectivity is a prerequisite to intersubjectivity, inasmuch as SP/W’s attitude toward AD/R is a function of the perspective of SP/W” (Traugott 2002: 22). In example (14) the speaker expresses his/her attitude towards an opinion which is already established within a certain community, to which the speaker responds. The speaker somehow agrees to those listeners who also think that these laser blasts are cool; s/he presupposes that (at least some of) the listeners already think that it is true that x.

This interpretation would assume a shift from ‘It is true that x’ to

➤ ‘I think it is true that x’

and finally to

➤ ‘I think we all agree that it is true that x’

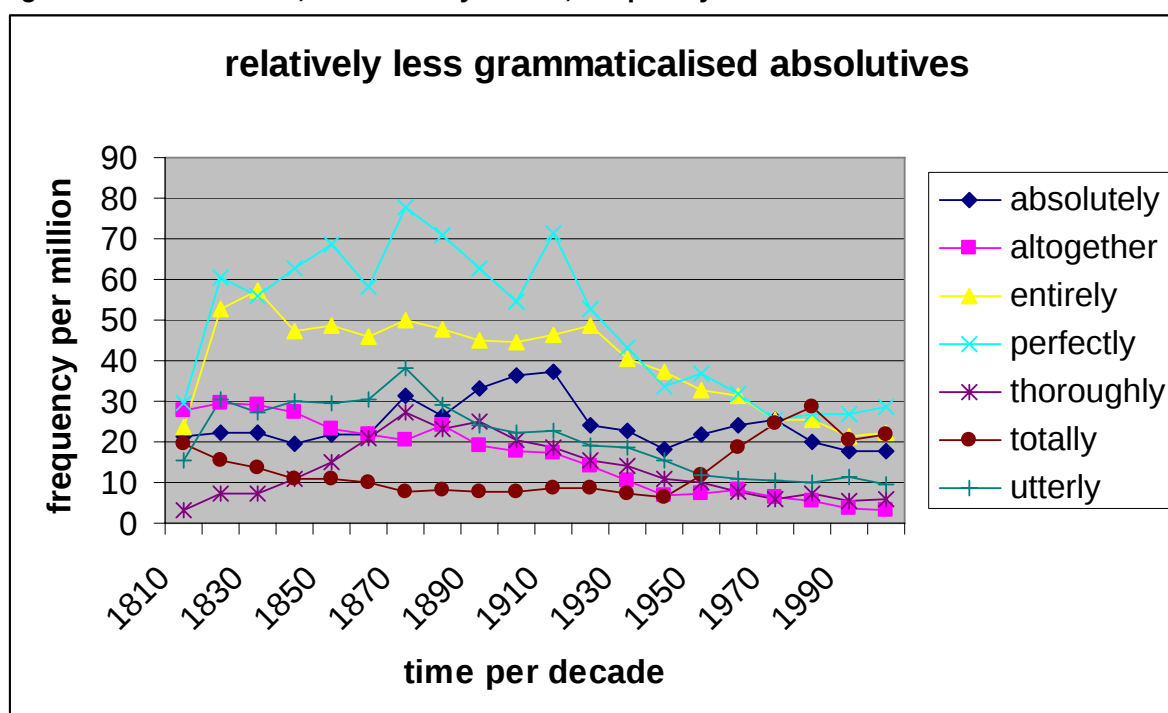
in which the assumed position of the listener is included in the speaker’s proposition.

²⁹ With reference to Halliday’s (1994) “metaphorical representation” of modality

3.2 Relatively less grammaticalised intensifiers

We expected relatively less grammaticalised intensifiers to fluctuate or even decrease in frequency and their meaning to be partly retained. We classified all the maximisers but *completely* into this group, although they are of course relatively highly grammaticalised. However, judged by their collocational behaviour there seem to be differences in the degree of semantic bleaching. A bleached maximiser can be said to become a booster; it does not express ‘completeness/totality’ anymore but only a high degree (just as *really*, when bleached, shifts from modal intensifier to degree intensifier). Therefore in this chapter we will concentrate not on the range of collocates but on the types of collocates, i.e. whether the modified adjectives allow for a lexical reading of the intensifier (e.g. a maximising reading) or if they suggest a certain degree of bleaching.

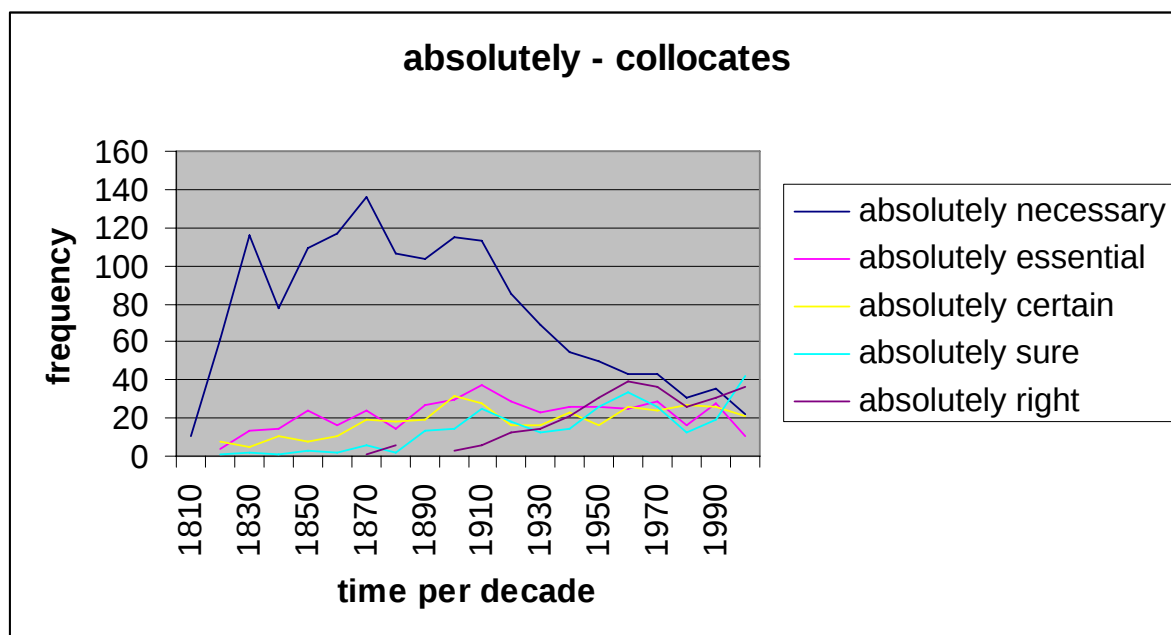
Figure 15: Decrease in, or relatively stable, frequency: maximiser / absolutes



Absolutely and *totally* remained relatively stable in frequency, though there have been upward, or downward, trends in between (see Figure 15). *Totally*, like *altogether*, *completely*, and *entirely* collocates most often with *different* and *new*.

Absolutely behaves very differently compared to other maximisers; it co-occurs most often with *necessary* (throughout the whole period) and *essential*, and with *certain*, *sure*, and *right* (C20), as shown in Figure 16.

Figure 16 Distribution of collocations: *absolutely*



The collocates of *absolutely* can be grouped into two lexical domains: a) necessity and b) certainty, which both allow for a maximising reading because they have an inherent endpoint. You can be maximally sure about a thing, but you cannot be infinitely sure. But at the end of C20 *absolutely* seems to develop a boosting function, in which the lexical meaning of completeness is bleached, as in:

- (15) People were tremendously involved and excited about the team. They cheered timeouts. They cheered the quarters. They cheered the ballboys. It was *absolutely wonderful*. I think they propelled the players. (COHA)
- (16) There were only two shows I was *absolutely crazy* about, other than Jerry Springer of course,' cause everyone loves Jerry, Millennium, and The X-Files. (COHA)

- (17) "A new Japanese green with white blossoms called Gailon is a very delicate broccoli that will look *absolutely beautiful* in your garden," Krupnick says. (COHA)

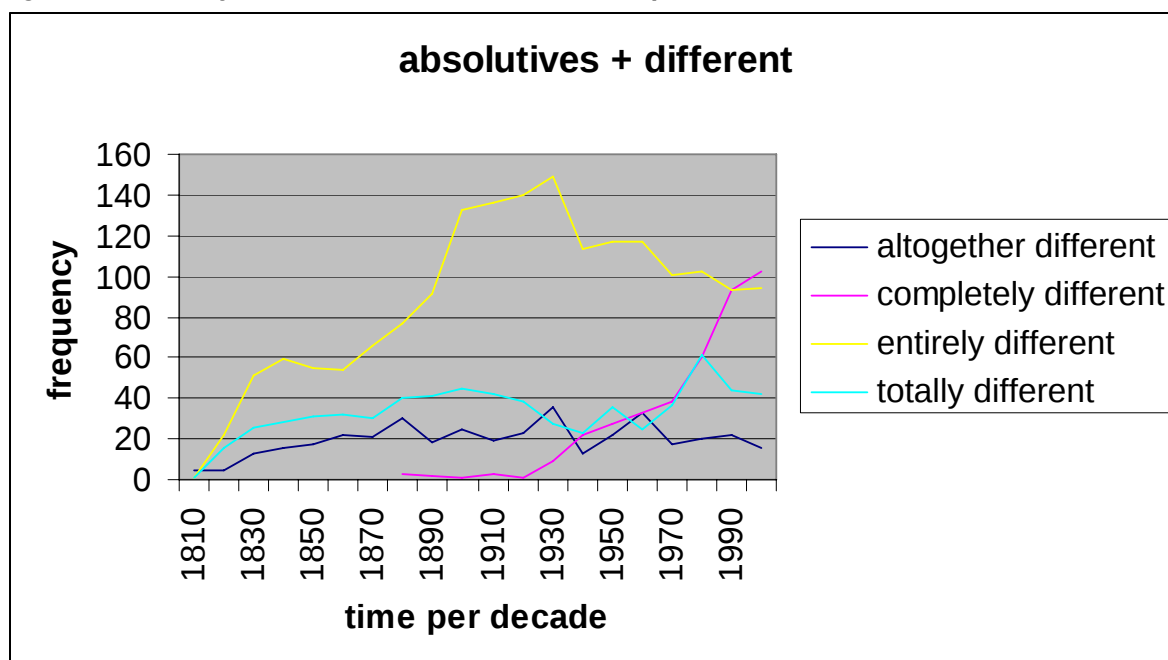
These adjectives have no inherent endpoint; there is no complete degree of wonderfulness, craziness, or beauty. It is possible to describe a situation as infinitely wonderful. So in combination with such adjectives, the meaning of *absolutely* is bleached and *absolutely* functions as booster rather than as maximiser.

Entirely and *perfectly* have both been used very frequently in C19 and both have a very wide range of collocates. While *entirely* collocates most often with *different* and *new*, like other maximisers, *perfectly* modifies different adjectives, such as *clear*, *natural*, and *true*. *Perfectly* does not occur with negatively loaded adjectives, in contrast to *entirely* which co-occurs, for instance, with *alone*, *ignorant*, or *wrong*.

Altogether, *thoroughly*, and *utterly* are the least frequent absolutes today. *Thoroughly* has a distinct set of collocates compared to other maximisers, and *utterly* co-occurs predominantly with negatively loaded adjectives (or adjectives with a negative prefix), most frequently with *impossible*.

Except for *absolutely*, *perfectly*, and *thoroughly*, all maximisers, including *completely*, collocate frequently with *different*; *different* is the most frequent collocate of *altogether*, *completely*, *entirely* and *totally* (see Figure 17 for the distribution of these collocations). In such a collocation “*different* is understood to mean ‘in all respects’, as opposed to a sectionalized difference as in *partly different*” (Paradis 1997: 82). Examples (18-21) from COHA are given below.

Figure 17 Totality intensifiers and their most frequent collocate



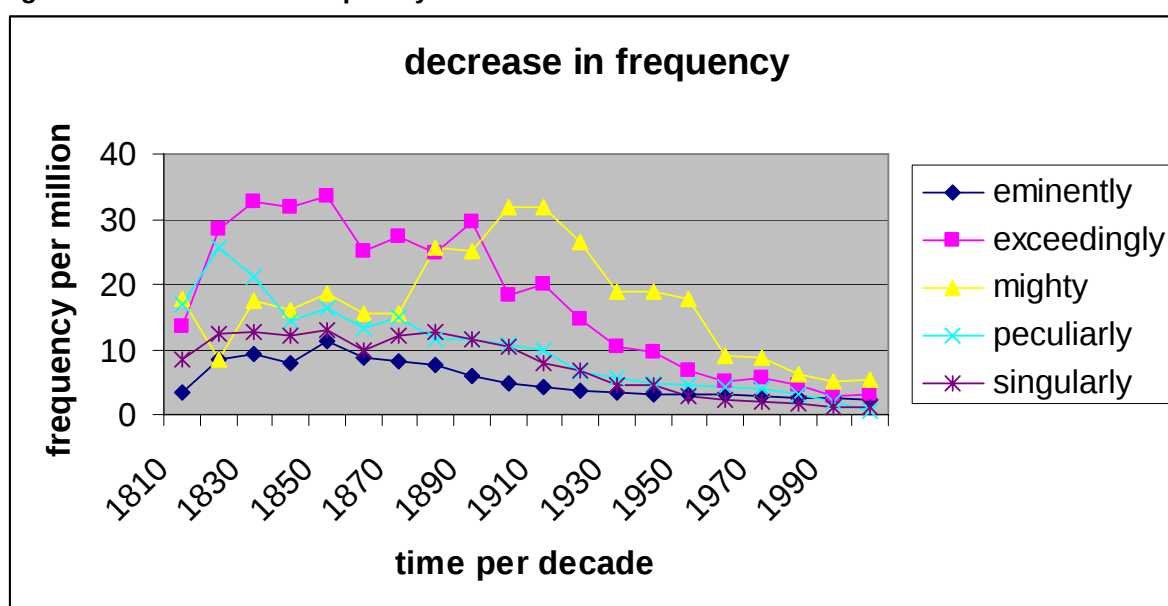
- (18) Nothing is more common in our researches, than to arrive at Results *altogether different* from those, which we had anticipated.
- (19) I believe that there are two kinds of people: those who had the Auschwitz (standing for the Holocaust) experience, and those who did not. Concerning the Holocaust, each of these groups brings to it its own interpretation, resulting from a *completely different* set of values.
- (20) To know about a subject and to know about teaching it are two *entirely different* things.
- (21) Revolutions do, however, take place in the world of languages, even if they take more time than it takes the French to change their constitutions: if a thousand years suffices to change a type of speech like that of King Alfred into the *totally different* one of Queen Victoria, then the much longer period which palaeontologists and zoologists accord to mankind on this earth could work still greater wonders.

Altogether occurs almost exclusively with *different* (and *new*), *entirely* has very strong relations to *different* and *new*, but occurs with many other adjectives as well (though less frequent than with *different* or *new*), and *completely* has developed a

strong collocation with *different* in the past few decades, as shown before. *Totally* has strong relations to *different* as well, and similar to *utterly*, combines with many negative adjectives, such as *inadequate* or *unable*.

Another group of words was also classified as relatively less grammaticalised due to their decrease in frequency (see Figure 18). All of them seem to have been relatively prominent in C19, but are used less than ten times per one million words in the second half of C20. The group consists of what we classified as comparative (*eminently*, in the sense of ‘notable, outstanding’; *peculiarly* – ‘particular, special’; *singularly* – ‘exceptionally good or great’), telic (*exceedingly*, in the sense of ‘extremely’), and non-telic intensifiers (*mighty* – ‘very powerful or strong’)³⁰.

Figure 18 Decrease in frequency: C19 fashion words



Eminently might have gained an intensifying function through semantic-feature-copying, as in *eminently distinguished* or *eminently respectable*. In C19 it co-occurs more than five times per decade with about ten adjectives. *Exceedingly* co-occurs most often with *difficult*. In C19 it also co-occurs more than ten times per decade with *interesting*, *small*, *rare*, *anxious*, *beautiful*, *rich*, and *important* (1910).

³⁰ The meanings in brackets are taken from the Concise OED (2004).

Mighty, at its peak at the turn of the century, collocates relatively widely, predominantly with positive adjectives, like *good* and *glad* (which co-occur with *mighty* more than fifty times per decade in the period between 1900 and 1920), but also with *fine*, *hard*, *nice*, *bad*, *sorry*, *pretty*, *big*, *proud*, *careful*, or *lucky*. It occurs most often in fiction. *Singularly* is not very widely distributed; in C19 it occurs most often with *beautiful*, and with *free* at the turn of the century; other adjectives with which it co-occurs more than five times in a decade are *fortunate*, *happy*, *clear*, and *sweet*. *Peculiarly* occurs most often with *interesting* in C19, and, oddly enough, with *American* in C20.

- (22) MacArthur's G-2 chief writes that "these ragpickers of modern literature... have developed an insufferable but *peculiarly American* characteristic: they have come to believe that they are omniscient." (COHA)
- (23) Ferris had, in unusual concentration, all the traits Max thought of as *peculiarly American*. (COHA)
- (24) She says she thinks the notion that children should not die may be *peculiarly American*. "We think children should be protected," she said, "but children do die. That's part of life, too." (COHA)

In the above examples *American* must be understood as some typical characteristic which can be graded in a way; *peculiarly* has no exclusive meaning, but rather a grading one, implying a sense of typicality/speciality. Something that is typical for Americans can be described as something 'very American', such as a particular style of writing, or a typical behavioural trait.

22a. Modern writers who think they are omniscient are very American

23a. Ferris was very American.

24a. The notion that children should not die is very American.

Especially the last example rejects the meaning of exclusively, and even of typically, since no normal human being wants children to die.³¹ *American* as a gradable adjective is difficult to define in general terms; the meaning must be inferred from

³¹ Example (24) is taken out of a conversation about a tornado that has obviously destroyed homes and killed people, and about the question why God lets such terrible things happen.

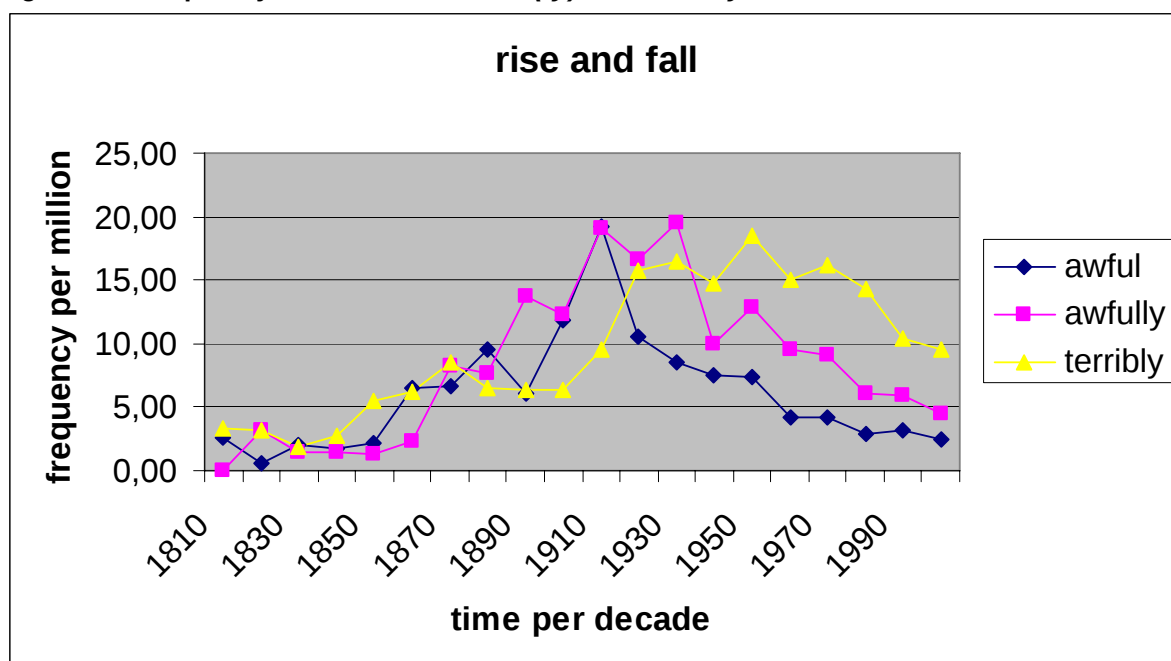
the context. Paradis (1997: 80) gives a similar example of *German* as an actually nongradable adjective that is modified by a degree word:

I'm getting *absolutely* German with {my precision} #
I can't bear things to be in a mess #

German is basically a nongradable adjective, but here it is mapped on to the gradable mode. It is clear from the context [...] that it has to be understood as a gradable adjective [...] characterized by an evaluative feature, implying something like 'pedantic'. The process of modulating the meaning of this adjective is very much like metaphorization, i.e. the word is not used in its ordinary literal sense referring to nationality, but refers to some typical trait of this nationality. (Paradis 1997: 80)

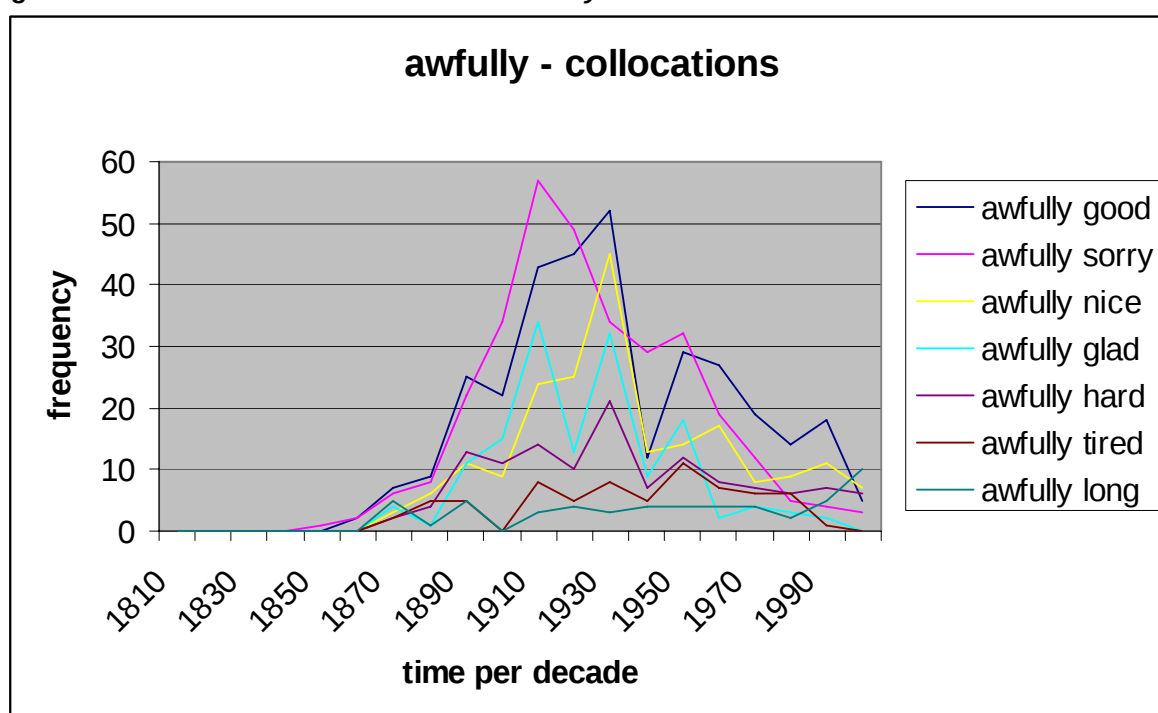
We also found frequency fluctuations in another group of non-telic intensifiers, the *awfully/terribly* group. Cacchiani classified *awfully* as degree intensifier, however, we stay with the classification according to the meaning of the adjective from which the intensifier derives, which is 'very bad or unpleasant'.

Figure 19 Frequency fluctuations: *awful(ly)* and *terribly*



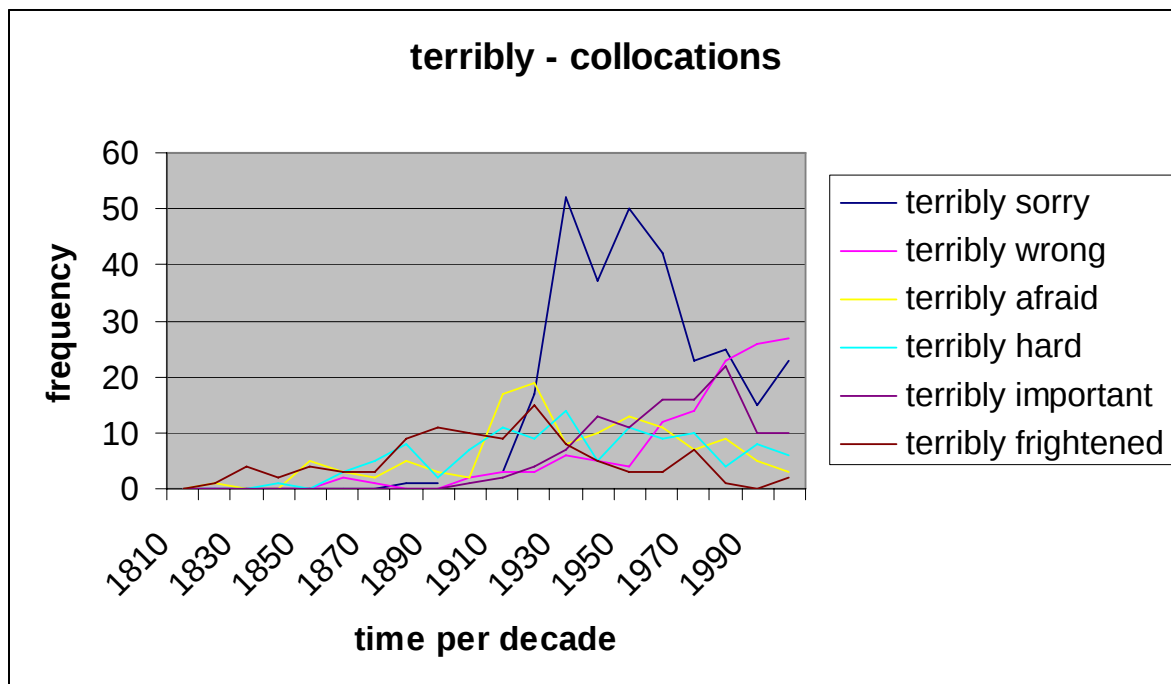
As can be seen in Figure 19, *awfully* rises first, *awful* rises fastest and *terribly* is used more frequently than the other two today. These intensifiers derive from the same semantic field, and seem to have developed their intensifying meaning together, in a shift from ‘frightfulness adverbs’ to intensifying adverbs³², probably through the co-lexicalisation with adjectives that allowed for semantic repetition, or semantic-feature-copying, such as *frightened* or *afraid*. They are all very prominent in fiction, and they have similar collocates, though differently distributed. *Awful* and *awfully* behave very similarly; they have their peaks at the turn of the century and collocate widely at that time. *Terribly* slightly differs in its collocational behaviour as shown in Figure 21, compared to Figure 20.

Figure 20 Distribution of collocations: *awfully*



³² In this shift, however, some adverbs became more popular than others; *fearfully* and *frightfully*, and the rather recent *horribly*, for instance, have (still) very low frequencies.

Figure 21 Distribution of collocations: *terribly*



The collocational behaviour of *awfully* reflects its frequency development; when it is frequently used it collocates widely. *Terribly*, on the other hand, specialises and at its peak collocates with one adjective only. As soon as *awfully* starts to decrease *terribly* seems to develop a strong collocation with *sorry*. The most frequent collocates of *awfully* and *terribly* today are *long* and *wrong*, respectively.

We assume that the intensifying function of these adverbs emerged via semantic-feature-copying; and indeed, among their early collocates are *frightened* and *afraid*. In a collocation like *awfully afraid* or *terribly frightened*, the adverb does not add any extra meaning to the adjective, but it rather repeats (or copies) an aspect (or feature) of the adjective's meaning. To be afraid or frightened already implies an unpleasant feeling, which is then emphasised by the modifier. It is through this repetition of a semantic feature which is already inherent in the adjective that the intensifying meaning or function of the adverb comes about. This means that the intensifying reading is constrained to a specific context, in which the pattern of semantic-feature-copying is possible. Through frequent use of *awfully/terribly* in contexts in which their meaning is interpreted as an intensifying one, the intensifying meaning is re-interpreted as part of the adverbs' conventional

(coded) meaning. Remember Traugott's Invited Inferencing Theory of Semantic Change (1.3):

1. Linguistic innovation > an implied meaning of a word is used in a new linguistic context
2. Evaluation of this spontaneous invention > new meaning is restricted to the context in which it emerged
3. Spread within a community and to other contexts > conventionalising of the new meaning

Once the intensifying reading of *awfully/terribly* has been established in a specific context through the implication of their lexical meaning, it then spreads to other contexts in which the degree modification is implied by the re-interpreted meaning. Context dependency here refers to the restriction to specific adjectives; when the re-interpreted (i.e. intensifying) meaning is 'conventionalised' the adverbs can then be combined with words with which they could not have been combined in their original lexical meaning (i.e. frightfulness).

In this sense we can say that an intensifying adverb that predominantly occurs in collocations in which the meaning of the adverb must be interpreted as an intensifying one will be more grammaticalised; the lexical meaning is backgrounded, or bleached, and the intensifying function prevails. An intensifying adverb that still occurs in collocations in which its intensifying function emerged (i.e. in which the lexical meaning of the adverb produces the intensifying function by implication) will be less grammaticalised, and less bleached. Consequently different collocates might suggest a different extent of grammaticalisation.

Terribly is still used with adjectives with which it co-occurred at the beginning of its grammaticalisation process; *afraid* and *frightened* are still among its most frequent collocates. *Awfully* seems to have developed further; it mainly collocates with positive (and frequent) adjectives such as *good*, *nice*, or *glad*, in which its lexical meaning is back-grounded. Thus *awfully* can be said to be more grammaticalised and more bleached than *terribly*. Paradis suggests that it adds emphasis to adjectives which are themselves bleached through frequent use.

It is probably the case that *awfully*, which is an informal modifier, is used to reinforce bleached adjectives which are common in informal communication. *Awfully* serves to inspire new life in them, as it were. (Paradis 1997: 85)

Despite its great extent of grammaticalisation *awfully* still seems to be a very forceful intensifier, as compared to *very* for, instance. This is especially true in combination with frequent or common words, as in the examples below.

- (25) You folks have been *awfully good*. (COHA)
- (26) That would be *awfully exciting*. (COHA)
- (27) Oh, dear! I'm *awfully tired*. (COHA)
- (28) Adrian's really *awfully nice*. (COHA)

In contrast to *very*, *awfully* seems to have developed a more subjective meaning. Examples (25) and (26) imply a very personal evaluation in which *awfully* is an indirect expression of a subjective attitude and conceals the more direct way of saying *I think / it seems to me* (that). *Awfully*, in example (25), emphasises a subjective feature of the adjective; it refers to a 'goodness' in character, a personal experience of something that evoked a good feeling in the speaker. If we replaced *awfully* by *very* in this example this would emphasise a different aspect of good, such as 'good/appropriate behaviour', graded more objectively. Similarly in (28) *very* would weaken the force of the utterance through a relatively objective interpretation: Adrian is really *very* nice; he is kind and polite and everyone gets along with him very well. *Awfully* adds force to a relatively bleached adjective through a subjective-evaluative meaning: Adrian's really *awfully* nice; personally I like him very much.

In other contexts *awfully* functions as a pure degree intensifier, and could easily be substituted by *very* (or maybe by *very very*) without the loss of any aspect of meaning:

- (29) Laying eggs has worked *awfully well* for an *awfully long* time. Crocodiles have bred that way since long before there were dinosaurs. (COHA)
- (30) Ever is an *awfully long* time. (COHA)

So *awfully* is relatively highly grammaticalised and bleached, but still rather forceful, and its pattern of intensification is somehow context-dependent. It functions as subjective-evaluative intensifier with common positive adjectives, it is a highly

grammaticalised degree intensifier in relatively neutral contexts, and it adds a negative force to negative adjectives.

The inherent negativity of the booster [*awfully*, but also *frightfully* or *terribly*] comes across as something negative only in combination with negative adjectives. There is no such effect with positive adjectives [...] (Paradis 1997: 84)

Terribly is (still) more often used with negative adjectives, in which it adds negative emphasis, and it is still used as a semantic-feature-copying intensifier, as in example (33):

- (31) It was hard at times, *terribly hard*! (COHA)
- (32) But Eddie, while approving the results, knew that the method used to get them was *terribly wrong*. (COHA)
- (33) They could see that the people were *terribly frightened*. Some were lying upon the ground as if dead; others were upon their knees with their hands stretched toward the globe that glistened like a star in the sunlight. (COHA)

It also co-occurs with positive adjectives, in which it has no negative meaning, and with adjectives that in some way imply positive as well as negative aspects, such as *excited*, which refers to a feeling of joy, in the sense of experiencing something new, but also inhibits some kind of insecurity, not knowing what to expect.

- (34) I was *terribly glad* to see him. (COHA)
- (35) And they're all so *terribly good*. (COHA)
- (36) We're all of us *terribly excited*, being the first day and everything. (COHA)
- (37) "You sound excited." "I am excited. *Terribly excited*. Never so excited in my life." (COHA)

Its most neutral collocate is *important*, in which *terribly* implies a sense of 'urgency' or 'priority'.

- (38) The telephone rang. Mason said, "See who it is, will you Della? I don't want to see anyone unless it's *terribly important*." (COHA)
- (39) Roger, it's *terribly important* that you shouldn't do anything to offend Uncle Homer. (COHA)

3.3. Co-lexicalised intensifiers

Co-lexicalised intensifiers, or intensifying adverbs, were expected to have (or settle at) a relatively stable frequency, and to be specialised in meaning and hence restricted to specific collocates. We looked at five intensifying adverbs which showed a stable (or stabilised) frequency rate (Figure 22), but none of them seems to fulfil our expectations.

Extremely, which settles at around thirty five occurrences in one million words, is the most widespread and most grammaticalised intensifier of this group. In C19 it collocates most frequently with *difficult*, and although *difficult* is still its most frequent collocate today *extremely* expands its range of collocates in C20 (Figure 23).

Figure 22 Co-lexicalisation?

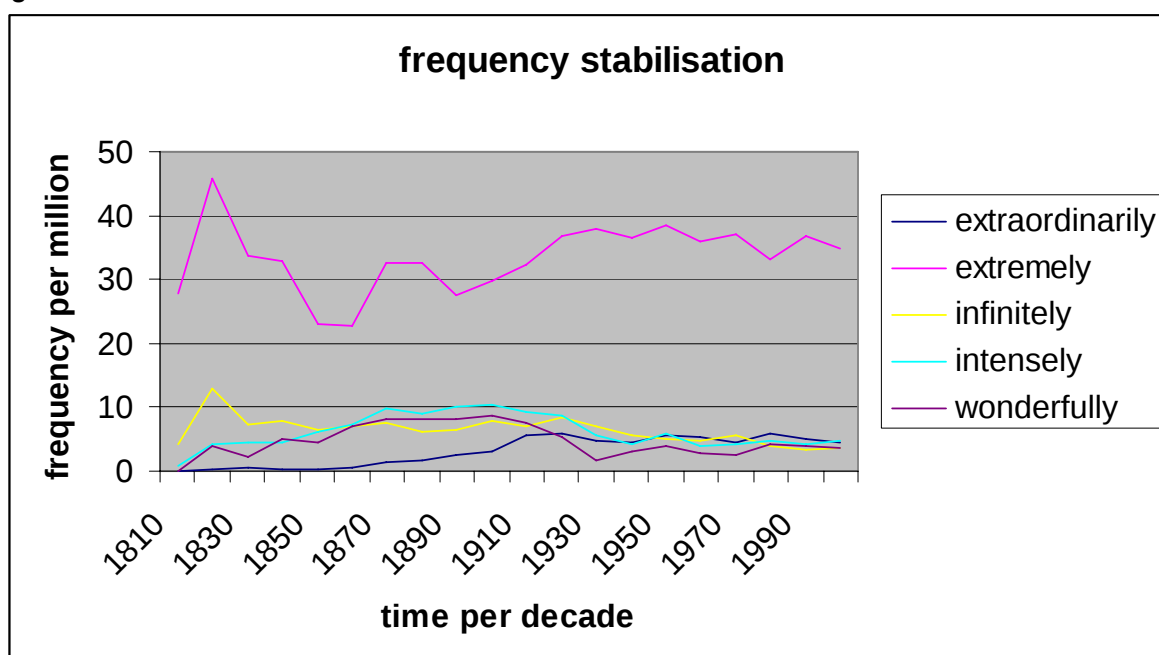
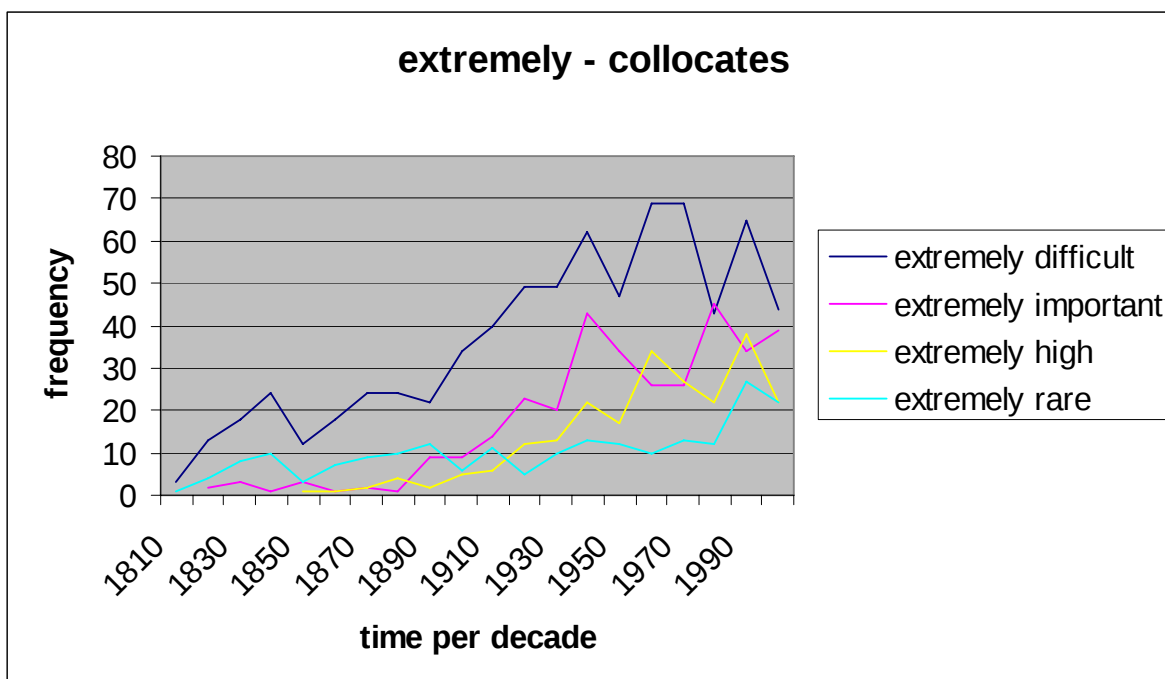
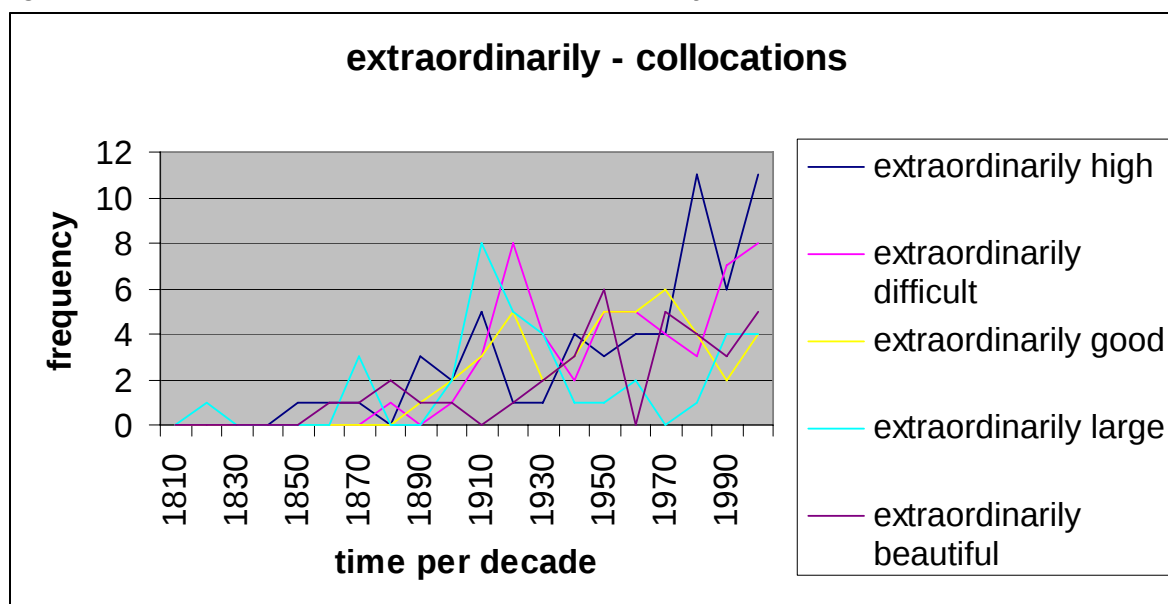


Figure 23 Distribution of collocations: *extremely*



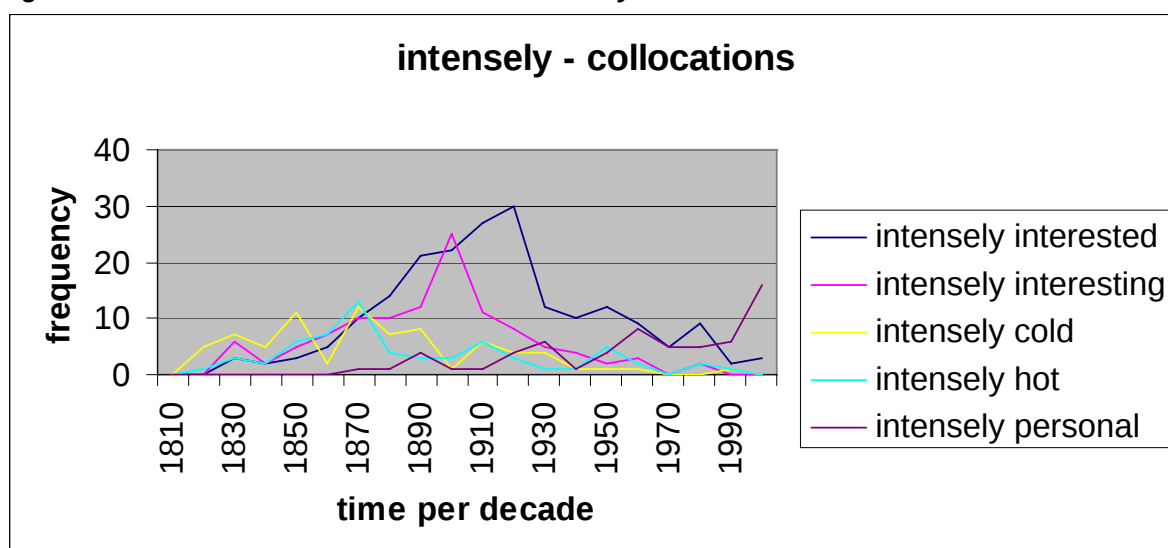
Also the intensifying adverbs *extraordinarily*, *infinitely*, and *wonderfully* show no specialisation in meaning or collocations. *Infinitely* co-occurs most often with adjectives in a comparative form, such as *infinitely better/greater/worse*; *wonderfully* collocates relatively widely, especially in the period between 1870 and 1920, and only with positive adjectives, like *beautiful*, *good*, *fine*, *clever*, *kind*, *happy*, *sweet*, or *attractive*. *Extraordinarily* collocates most frequently with five adjectives – *high*, *difficult*, *good*, *large*, *beautiful* – which show however no common pattern that would suggest a co-lexicalised status of *extraordinarily*. The distribution of the collocations fluctuates rather strongly (Figure 24).

Figure 24 Distribution of collocations: *extraordinarily*



The collocates of *intensely* show more semantic relation to the modifier; they are semantically similar to one another, and they can be linked to the original usage of intense, which “tends to relate to subjective or emotional responses”.

Figure 25 Distribution of collocations: *intensely*



The four most frequent collocates can be grouped into two semantic pairs – *cold* and *hot*, and *interested* and *interesting*. In the first half of C19 *intensely* collocates most

often with *cold* and *hot*; in this combination *intensely* functions as degree modifier through its lexical meaning 'of extreme force, degree or strength'³³, and thereby refers to an intense feeling of an extreme temperature.

- (40) The weather had become *intensely cold*. (COHA)
- (41) Our army is in good condition and full of confidence; but the weather is *intensely hot*, and a good many men have fallen with sunstroke. (COHA)

At the end of C19 it starts to collocate more frequently with *interested* and *interesting*, which are its most frequent collocates at the beginning of C20. In such collocations *intensely* refers to more abstract, or even subjective-emotional states, in which a personal interest (in something) is expressed; the meaning of *intensely* in this combination is 'extremely earnest or serious', in the sense of showing serious interest.

- (42) He was a journalist, *intensely interested* in internal improvement. (COHA)
- (43) The older pupils were *intensely interested* in the banking class, the teacher acting as president, and two or three being chosen as cashier, teller, and clerk. (COHA)

Today the most frequent collocate of *intensely* is *personal*, which suggests a further shift towards the subjective-emotional sphere.

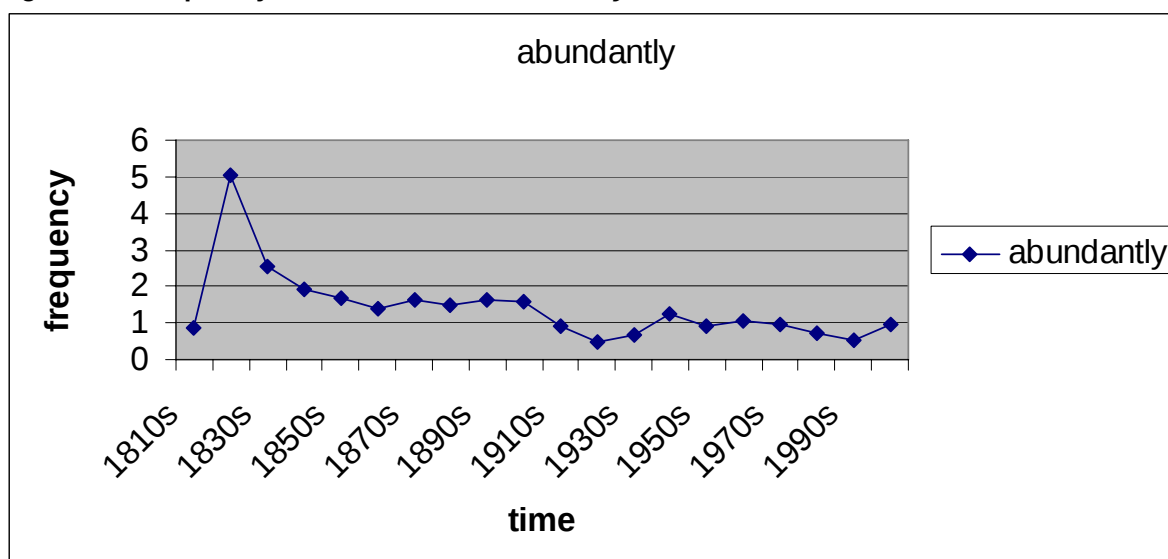
- (44) The urge to collect is an *intensely personal* one. At the heart of any great collection [...] is an attraction to an object, regardless of its appeal to others. Find additional objects that inspire that same appreciation, and a collection is begun. (COHA)
- (45) This work, accomplished shortly after the death of Signer's mother, had an *intensely personal* dimension. It connected Appenzell, where Signer grew up, with St. Gallen, where he lives now, in a memorial act linking himself and his mother (COHA)

³³ See Appendix for the semantic origin of intensifiers, i.e. definitions of the adjectives from which they derive, according to the Concise OED 2004.

- (46) On the one hand, transcendent human nature renders every human being a "somebody" in a metaphysical sense. On the other, the human being realizes oneself as "more of a somebody" in an *intensely personal* and subjective way through the particular historical circumstances of one's life. (COHA)

Intensifying adverbs which are really co-lexicalised, in the sense that they collocate with one specific adjective in a strong collocation, are very rare. They are probably too restricted, and seemingly, speakers tend to prefer intensifiers that can be used in combination with many words. An example of a co-lexicalised intensifier would be the very low frequency adverb *abundantly*, which is not considered in detail here; however, in order to illustrate how such a co-lexicalisation might look like, we have included an overview of the collocational behaviour of *abundantly* (Figure 26 and 27).

Figure 26 Frequency distribution of *abundantly*



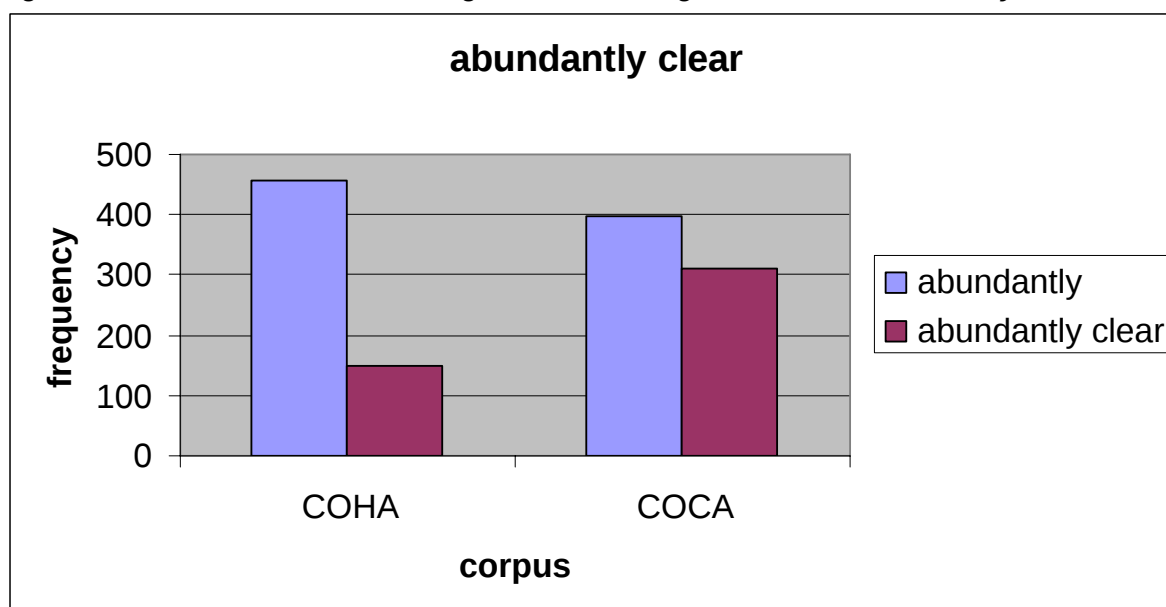
In the 1820s, at its peak, *abundantly* co-occurred with several heads, such as *evident*, *objectionable*, *happy*, *grotesque*, *lucrative*, or *kind*; by the end of C20 it seems to have built a strong collocation with *clear*, meaning 'more than clear':

- (47) It is in short *abundantly clear* that...
- (48) He said it has become *abundantly clear*.

- (49) The pharaoh's reaction was *abundantly clear*.
 (50) A fact that was made *abundantly clear*.

When we compare the overall frequency of co-occurrences of *abundantly* and *clear* throughout both centuries (COHA), to the frequency of this collocation in the 1990s and 2000s (COCA), this looks as follows (Figure 27): *abundantly* is now used less frequently than before, but it is used more frequently (in absolute) together with *clear*.

Figure 27 Co-lexicalisation > emergence of a strong collocation: *abundantly* and *clear*



3.4. Other patterns

Some intensifiers could not be classified into one of the common patterns. We will briefly take a look at them in this section.

Damned and *remarkably* both first declined and then rose again (see Figure 28); both co-occur most often with *good*, whereby *damned* is clearly more informal

in register. *Overly* is on the rise and widens its range of collocates (Figure 29); it seems to take the typical path of grammaticalisation.

Figure 28 Frequency distribution: *damned*, *overly*, *remarkably*

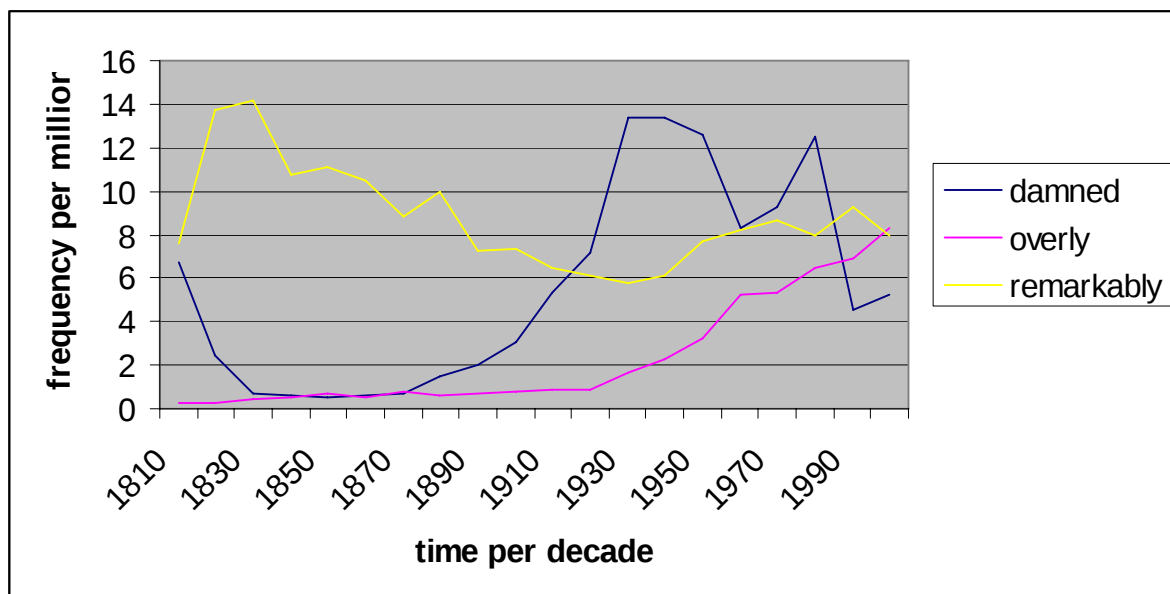
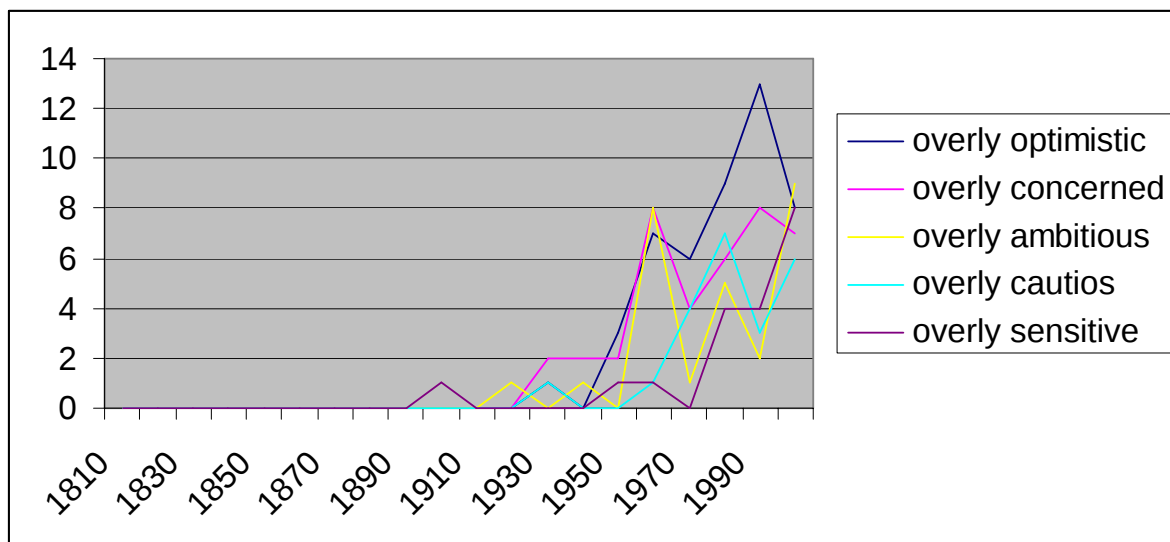


Figure 29 Distribution of collocations: *overly*

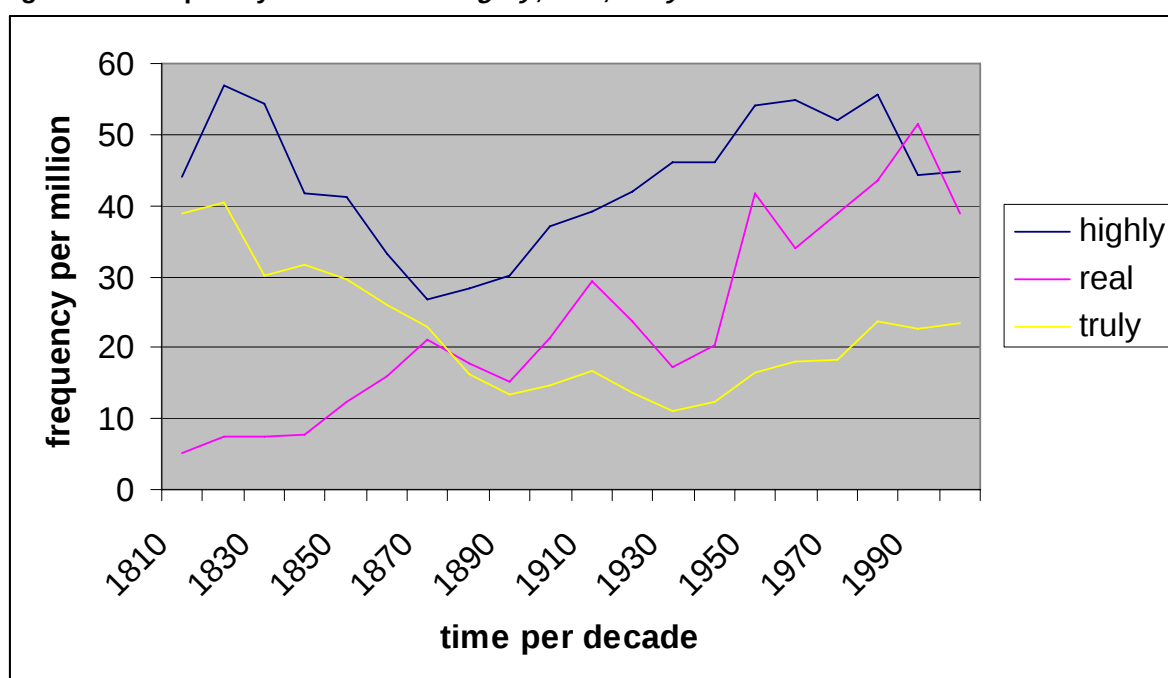


More frequent intensifiers that could not be classified are *highly*, *real*, and *truly* (Figure 30). *Highly* and *truly* both decreased in frequency at the end of C19 and increased again in the 1970s. *Real* rises more or less steadily and co-occurs with

several adjectives. Although *real* and *truly* derive from the same semantic field ('truth, reality'), they have different collocates. *Real* seems to be more bleached than *truly* and co-occurs with common (also bleached) adjectives, such as *good*, *nice*, *bad*, *hard*, *pretty*, *big*. The most frequent collocates of *truly* are *great*, *sorry*, *remarkable*, *national*, *wonderful*, *happy*, *beautiful*; *really* occurs with the collocates of both *real* and *truly*.

Highly is a degree intensifier; its main function is "to put the degree of the implied property high on a scale". "In contrast to typical boosters (*very*, *extremely*, *terribly*), *highly* does not combine with typically scalar adjectives, such as *good*, *long*, *fast*"; it "is a formal degree modifier which is used for more selective purposes and maybe also in more matter-of-fact and less evaluative contexts" (Paradis 1997: 85). Its most frequent collocates include *developed*, *important*, *probable*, *successful*, *respectable*, and *educated*; but also *skilled/trained*, *significant*, *unlikely*, *respected*, and *desirable*. The meaning of the adverb *highly*, as given in the Concise OED, is not only 'to a high degree or level', but also 'favourably', which would explain the intensification of *desirable* as a result of semantic-feature-copying.

Figure 30 Frequency distribution: *highly*, *real*, *truly*



3.5. Summary and overall interpretation

The typical pathway of a lexical adverb becoming a highly grammaticalised intensifier is characterised by a rise in frequency and an expanding range of collocates. *Incredibly* and *surprisingly* show such a pattern, although they are only at the beginning of that path. *Very* has gone that way and seems to have reached the endpoint of its development; it collocates widely, it is used very frequently, and its meaning has been completely bleached. *Really* can also be seen as a highly grammaticalised intensifier, and seems to develop even further by becoming more subjective. *Completely* rises in frequency but specialises in its collocations; it shows that the co-lexicalisation with a frequent adjective (like *different*) can also lead to a rise in frequency.

Intensifiers and intensifying adverbs that were classified as relatively less grammaticalised are characterised by a rise in C19 and a fall in C20. The reason for the decline might be the strong competition among semantically similar intensifiers (e.g. among *awfully/frightfully/horribly/terribly*, or among maximisers/absolutives). The shift towards more subjective meanings comes automatically with the function of intensification; however, some intensifiers become even more subjectivised than others, independent of the degree of grammaticalisation or semantic bleaching.

Co-lexicalisation, especially in the sense of the emergence of strong collocations, is very rare, at least as a long term phenomenon, or as an end point of an intensifier's development. It seems to be an intermediate stage towards a more grammaticalised intensifier, as suggested earlier, and comes about most probably through semantic-feature-copying, which soon leads to an expansion of the range of collocates, through abstraction or metaphorisation.

Another group of words showed the reverse development of relatively less grammaticalised intensifiers in that they first declined (in C19) and then rose again; among them were *highly*, *truly*, and *remarkably*.

The pattern of intensification gives a hint at the way an intensifier entered the grammaticalisation process (through an aspect of meaning which could be read as an intensifying meaning, through semantic relation to an already grammaticalised intensifier, through semantic feature copying), but can vary according to the extent

of grammaticalisation. For example, *very* has started as modal intensifier and is now a degree intensifier because it has lost its original meaning.

At this point we return to the classification according to the pattern of intensification, which was presented at the beginning of this chapter, and try to summarise our findings in relation to the original lexical meaning of the examined intensifiers.

3.5.1 Maximisers/absolutives

Maximisers develop an intensifying function through their lexical meaning, which refers to totality, or completeness; they express an absolute endpoint of a scale. Some maximisers are, however, used with adjectives which have an open-ended scale; such combinations suggest a higher extent of semantic bleaching, leading to a functional change from maximiser to booster.

Altogether, *completely*, *entirely*, and *totally* co-occur most often with *different* and *new*; only *completely* has risen in frequency, *altogether* and *entirely* have decreased, and *totally* has remained relatively stable. *Utterly*, which co-occurs with *different* as well, but not as often as the other maximisers, decreases in frequency, and shares with *totally* a preference for negative adjectives.

Absolutely has remained relatively stable, and co-occurs most often with adjectives referring to necessity or to certainty, but also with more 'colourful' adjectives, like *wonderful* or *beautiful*, which have no complete degree, and therefore suggest a boosting reading of *absolutely*.

Perfectly was a very frequent intensifier in C19 but decreased in frequency; in contrast to other maximisers it collocates very widely, and also the types of collocates differ from those of the other totality intensifiers. It co-occurs most often with *clear*, *natural*, *safe*, *good*, and *happy*; "[t]he interpretation of good [when modified by perfectly] is then roughly 'optimal', 'acceptable'" (Paradis 1997: 80).

Thoroughly, like *absolutely* and *perfectly*, again differs from typical maximisers in its collocational behaviour; it has a narrow range of collocates, among which are *familiar*, *good*, *frightened*, or *disgusted*. The adjectives with which it combines

suggest a more subjective-emotional reading of thoroughly, as compared to other absolutes, referring to a feeling that goes 'through and through', ('to the bone').

The patterns of change of maximisers can then be summarised as follows:

- Lexical meaning of 'completeness' leads to a maximising function
- Further development:
 - o Collocating with *different* and *new*
 - o Bleaching and/or subjectivising, and become a booster

3.5.2 Modal intensifiers

The intensifying function of modals emerges from the truth asserting meaning, which emphasises the quality of the adjective being modified through ensuring that it is true or real.

Truly, which decreased in C19 and started to rise again at the end of C20, is relatively less grammaticalised, and more specialised in meaning. Compared to *really*, it has a very narrow range of collocates, and compared to the informal *real*, *truly* collocates with more colourful adjectives.

Really has risen in frequency, is relatively highly bleached, and seems to have undergone further subjectification.

A modal intensifier, which intensifies via truth assertion, can develop in two ways:

- Modal intensifier
 - o Less bleaching > more collocational restrictions
 - o Semantic bleaching and/or subjectification > wide range of collocates

3.5.3 Comparative intensifiers

Comparatives intensify through emphasising the specialty, or the exceptional status, of the quality of the adjective as compared to other, (usual, common, ordinary) qualities.

Extraordinarily has emerged at the beginning of C20 and has been relatively stably used since then. *Particularly* rose in frequency, combining an intensifying and a specifying function. All the other comparative intensifiers decreased again, and are restricted in their collocability.

- Comparative intensifiers
 - o Collocate with frequent adjectives > high/stable frequency
 - o Specialised > collocational restrictions > decrease in frequency

3.5.4 Telic intensifiers

Telic intensifiers were defined as expressing that an extreme point of a norm is reached or even overreached, and relate to the meaning of 'more than usual', or 'more than thought possible'.

Extremely is highly grammaticalised and has a relatively stable frequency throughout the two centuries. *Exceedingly* was used similarly often as *extremely* in C19, and also has similar collocates (though less than *extremely*), but declined in frequency. *Incredibly* and *overly* show an upward trend; they can both be described as (still) lexical intensifiers, and *infinitely* co-occurs predominantly with adjectives in the comparative.

- Telic intensifiers
 - o Wide range of collocates > high and stable frequency
 - o Narrow range of collocates > low, or even decrease in, frequency

3.5.5 Non-telic (polyfunctional) intensifiers

Non-telic intensifiers are intensifying adverbs which have a colourful or forceful aspect in their semantics, which can be transferred into an intensifying function; they are relatively less grammaticalised (because they still function as lexical adverbs as well), and have usually retained much of their meaning. Due to their concrete and expressive meaning, they are subject to change as a result of changes in preferences of different speakers at different times.

Awfully certainly is the most bleached intensifier of this group, but has been in competition with *awful* and *terribly*; all three intensifiers have declined again.

Surprisingly rose in frequency but can still be read as lexical intensifier, just like *incredibly* or *extraordinarily*, and collocates with relatively frequent adjectives, such as *good* or *large*. *Intensely* and *wonderfully* are relatively specialised and restricted in their collocability; their pattern of intensification is one of semantic-feature-copying (*intensely personal*, *wonderfully beautiful*).

- Non-telic intensifiers > semantic-feature-copying
 - o Remain lexical and/or restricted to specific collocates > stable frequency
 - o Semantic bleaching > first increase, then decrease in frequency

3.5.6 Taboo intensifiers

Taboo intensifiers are forceful because they are taboo; they are subject to register restrictions and if they are used, though, then they relate to a degree which is stronger than could be expressed by a non-taboo, socially accepted, word.

Damned, a curse word used as intensifier, has found its way into written language, and collocates most often with *good*. *Real* was considered as taboo intensifier because it is very informal in written language; it rose in frequency and it collocates with adjectives which are also modified by *really*.

Since this study is concerned with written language, we could not define some common pattern in taboo intensifiers; *real* is only informal, but still a modal, and there is not much to say about *damned*, except for its forcefulness.

3.5.7 Degree intensifiers

Degree intensifiers are highly grammaticalised, which means that they have become purely grammatical items, or pure intensifiers, with the prime function of degree modification.

The very formal intensifier *highly* has an inherent meaning of degree; it is highly grammaticalised but not bleached. *Highly* is very widespread, but still specialised in that it collocates with specific groups of words, such as educated/skilled/trained, probable/improbable/unlikely, important/significant, or respectable/respected. In some collocations *highly* seems to have a shared meaning with the head in that the collocation means more than just a combination of modifier and head; for example a country that is described as *highly developed*, is not only developed to a high degree but the collocation *highly developed* refers to very specific cultural standards, such as industrial and technical infrastructure.

Very is the most grammatical, most semantically bleached, and most common English intensifier. Due to its frequent use as bleached grammatical item, it might have lost its force over time, and it is unclear in how far *very* will/can undergo further subjectification.

- Degree intensifiers > highly grammaticalised > very frequently used

To sum up, we can say that there is a correlation between the extent of grammaticalisation, the range of collocates, and the frequency of an intensifier.

- 1) Highly grammaticalised > wide range of collocates > high frequency
- 2) Relatively less grammaticalised > narrow range of collocates > low frequency

Highly grammaticalised intensifiers are usually semantically bleached, or have an inherent semantic property which refers to degree, and can therefore be combined with many different adjectives. Their status as grammatical item makes them more frequently used. Some frequently used, highly grammaticalised intensifiers even

develop a more subjective meaning over time, which can be seen as the final stage of grammaticalisation processes; the meaning of a word is then totally exploited.

Relatively less grammaticalised intensifiers have a meaning which can be (re-)interpreted as an intensifying one in specific contexts. Often the intensifying reading emerges in a context in which the adverb copies some semantic feature of the adjective, which means that the grammatical function of the adverb is restricted to specific contexts, or to specific combinations, in which semantic repetition is possible. The co-lexicalisation with specific adjectives might then trigger the further grammaticalisation process of the intensifying adverb.

Some exceptions or special cases worth mentioning are:

- Semantically bleached maximisers may become boosters (e.g. *absolutely*)
- A highly grammaticalised intensifier may decline in frequency (e.g. *awfully*, *very*)
- An intensifier which co-lexicalises with a frequent adjective can be used very frequently, i.e. high frequency, despite narrow range of collocates (e.g. *completely*)

Intensifiers from the same semantic field, or with the same pattern of intensification, compete very strongly with one another; over time they will decline and be replaced by others. This means that there is also a correlation between the development of an intensifier and its underlying pattern of intensification. The more competitors an intensifier has, the more likely it is that it will be replaced some time soon; the fewer competitors, the higher and more stable its frequency.³⁴

3.6. Open questions

We could not answer the question of why some intensifiers, once grammaticalised, decline again. What happens to these words? How can they survive, being somehow stuck in the middle of the grammaticalisation process?

³⁴ Compare e.g. *awfully/fearfully/frightfully/horribly/terribly*, ... to *really/truly*

Furthermore we still do not know what makes one intensifier more 'successful' than another, and we cannot predict which intensifiers will grammaticalise further and rise in frequency, and which will decline again.

Another issue we have not discussed so far is the actual reason for change. Grammaticalisation leads to changes in frequency and changes in collocational behaviour; but what leads to grammaticalisation in the beginning? Who or what is responsible for the changes in intensifiers?

Unfortunately we won't be able to answer these questions here; however, we will refer to some of them in a tentative afterthought.

4. Afterthought

At the beginning of each grammaticalisation process stands an individual speaker who, in a specific context, exploits an implied meaning of a word. The new meaning must then spread throughout a community until enough speakers know of it and use it themselves so that it can be said to be conventionalised, and thus widely understood.³⁵ The question we are concerned with in this chapter is how do new meanings spread? The conventionalisation of a new meaning is not actually led by the speakers, but rather happens through them; the speakers' communicational behaviour seems as if led by an invisible hand.

³⁵ The fewer people who know of the meaning, the less it will be referred to, because the speaker normally wants to be understood, and thus uses expressions that are supposed to be known by the addressee.

4.1 Invisible-hand explanation

Keller (2003)³⁶ argues for a theory which explains phenomena where a state of spontaneous order is the result of human action, but not of human intention. He suggests that the environment (*ecological conditions*) of a community of speakers leads the speakers to assume *maxims of action* according to which they behave (intentionally), and that language change is the causal consequence of the speakers' communicational behaviour. In between speakers' intentional actions and the causal consequences which directly lead to change there is an *invisible-hand process* working, during which a certain behavioural change (evoked by a new or altered maxim of action) somehow spreads.

An invisible-hand phenomenon is explained if it can be shown to be the causal consequence of individual actions that realize similar intentions. (Haspelmath 1999: 1054)

Similar intentions, and hence similar behaviour, of a group of people might lead to a 'spontaneous order' which was not intended. Each member of the group had similar intentions, but none of them intended an 'order'; though in the end it looks as if it had been planned. Keller gives the example of trails (*Trampelpfade*) through the lawn of the university campus, which look like intelligent design, but actually are the result of lazy students (and professors) who shortened their way by tracking the diagonal line instead of using the way around the lawn (which was planned by architects); or circles of people around some street artists (they form because everyone intends to view the artist).³⁷

In the case of language, or more specifically in the use of intensifiers, speakers also have similar intentions; they want to be understood, they want to express force; as mentioned at the beginning of this paper intensifiers are used "for impressing, praising, persuading, insulting, and generally influencing the listener's reception of the message" (Partington 1993: 178). Thus we can say that speakers

³⁶ I have read, and thus refer to, the 3rd edition; the 1st edition was published in 1990.

³⁷ The circle formation as an example for spontaneous order is illustrated in Keller (2003) with a series of photographs by architect Hans Nickl: "10 minutes in front of the Centre Pompidou".

who use intensifiers have similar intentions, the most important of which is to be expressive, or extravagant.

The notion of extravagance is a better description than “expressivity” [...]. According to a dictionary definition, expressive means ‘showing very clearly what someone thinks or feels’, so in this sense “expressivity” would not be different from clarity [...] and it would not explain why speakers should use an innovated word for a sense that for a long time has successfully been expressed by different means. The crucial point is that speakers not only want to be clear or “expressive,” sometimes they also want their utterance to be imaginative and vivid (Haspelmath 1999: 1057).

Extravagance can be seen as one maxim of action, as suggested by Haspelmath (1999: 1055): “talk in such a way that you are noticed”; the ‘hypermaxim’ being “talk in such a way that you are socially successful, at the lowest possible cost” (ibid.).³⁸ “The invisible-hand process thus starts out with individual utterances of speakers who want to be noticed and who choose a new way of saying old things” (Haspelmath 1999: 1057), which leads us back to Traugott’s Invited Inferencing Theory, which shows many parallels to an invisible-hand explanation³⁹:

- 1) Exploitation of invited inference > maxims of action (extravagance), based on ecological conditions (contextual discourse)
- 2) Weighting of invited inference > maxims of action (clarity, conformity, economy, extravagance), ecological conditions (contextual restrictions)
- 3) Conventionalising of invited inference as general invited inference > invisible-hand process
- 4) New coded meaning > explanandum

³⁸ Based on Keller (1994); “at the lowest possible cost” refers to the maxim of economy (“talk in such a way that you do not expend superfluous energy”); Haspelmath gives two more maxims: clarity (“talk in such a way that you are understood”), and conformity (“talk like the others talk”).

³⁹ We assume the ecological conditions and the maxims of action to be interdependent; speakers in a community are assumed to behave according to similar maxims because they live under similar ecological conditions; a change in the ecological conditions would then trigger a change in the maxims of action, and consequently a change in the speakers’ communicational behaviour, which would then lead to a change in the environment again.

The first step, basically, is to 'choose a new way of saying old things' in a particular context, such as the use of a new adverb in the function of intensification; "if the lexical item stands for a grammatical item [...], this may trigger a grammaticalization process at the end of which the lexical item has turned into a grammatical item" (Haspelmath 1999: 1057). The second step is the evaluation of the new meaning (e.g. the new intensifying adverb) in different contexts, regarding its usability. In the third step the new meaning spreads from speaker to speaker and gets conventionalised.

[A]n individual speaker's innovation must be adopted by other speakers, who thereby follow both the maxim of conformity [...] and the maxim of extravagance [...]. If the minority that thus innovated the new feature is socially influential, the feature will spread throughout the linguistic community, although at a certain point the maxim of extravagance will no longer be relevant, and the maxim of conformity will be sufficient reason to adopt the new feature. (Haspelmath 1999: 1057-8)

At the end of the process the word has a new coded meaning (either next to its old one or instead of it); this change in meaning then is the explanandum (the thing to be explained).

Once the new meaning has become common it loses its status as being new, and thus 'extravagant', and must be replaced by another 'innovation', which then triggers the next invisible-hand process of grammaticalisation. We now want to focus on the invisible-hand process per se, which might require a shift of perspective.

4.2. Shift of perspective

Based on the assumption that the grammaticalisation of intensifiers involves an invisible-hand process, which leads to a spontaneous order (i.e. the conventionalising of a semantic change) as "a byproduct of ordinary language use" (Haspelmath 1999: 1054), we will now take a closer look at the mechanisms by which new meanings get conventionalised (step 3).

While speakers might invent new words/meanings (more or less) intentionally, the spread of these words/meanings happens non-intentionally. Even if a speaker wishes to spread a word by intention, s/he would not be in control of the listener's willingness to acquire it. From the speaker's point of view an invisible-hand process appears like a black-box phenomenon; in order to understand how a new meaning spreads we therefore suggest a shift from the speaker's perspective to the intensifier's point of view, and try to look inside the 'black box', i.e. inside the speaker's brain. Taking this perspective we assume that changes in intensifiers are the result of co-operation and competition inside the speaker's brain, where several different intensifiers and intensifying adverbs are stored as neuronal configurations (or nerve cell assemblies⁴⁰) that wait to be expressed/activated.

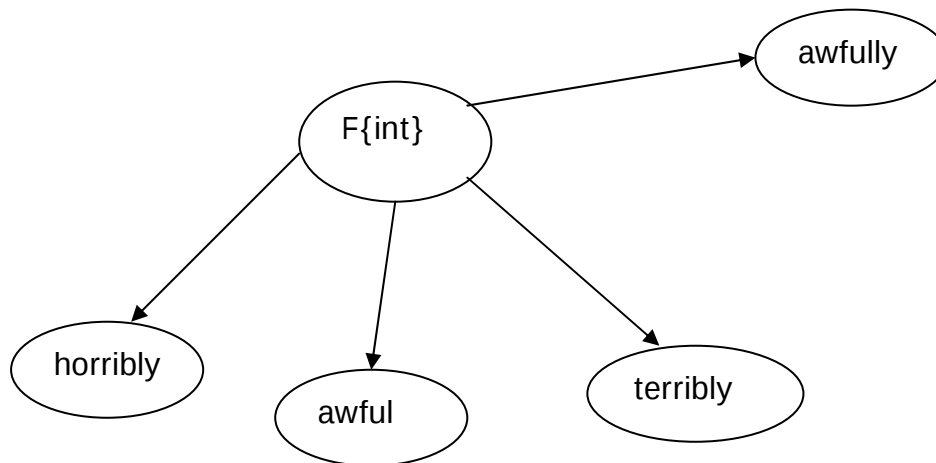
We imagine the function of intensification as a specific slot or position in our minds/brains, which has relations to many different lexical items, and which triggers their expression. The expression of a specific intensifier depends on the context (e.g. formal/informal, more/less emotional, ...) and on the strength of its relation to the function of intensification; for example *damned* is an informal, emotional intensifying adverb, which has weak relations to the function of intensification, because it is still used very frequently as a curse word. *Very*, on the other hand is relatively context-independent, and has very strong relations to the function of intensification; when the intensifying function is activated in the brain it will often trigger the activation of *very*, as there are no contextual restrictions. But in a context where *damned* is activated *very* would be 'inappropriate' due to its lack of force and emotionality.

The function of intensification can be expressed by an extremely large number of different words, all of which wait for the signal to get activated; of course only one intensifier can be expressed at a time, so the different intensifiers compete with one another for getting activated by the function of intensification, i.e. expressed as intensifier (by the speaker).

⁴⁰ Neurons can be described as: "information processing cells of the nervous system, including brain cells and the cells whose fibres make up the nerves and spinal cord" (Pinker 1994: Glossary, s.v. neurons).

Figure 31 The function of intensification triggers the activation of one variant:

That end of a connection which reacts most promptly will get expressed;
the stronger the relation between a variant and the F{int}, the faster the reaction.



In the present thought experiment we regard intensification as a functional slot in the speaker's mind/brain, to which we will refer as F{int}. The F{int} can be occupied by various mental representations for words that wait to be expressed (see figure 31); for reasons of simplicity we will refer to these mental representations as *memes*⁴¹. The term meme was coined by Richard Dawkins⁴² in 1976, and being a successful meme itself, the 'meme-meme' spread throughout the populist as well as the scientific community.

The present account is based on Ritt's (2004) definition of linguistic memes, which are "special types of 'memes', that is, neuronal structures for dealing with the world in cognition and behaviour, which can place faithful copies of themselves in other brains" (Ritt 2004: 186). A meme is a neuronal configuration in which particular cell nodes are connected to one another and get 'fired in unison', i.e. they

⁴¹ As a matter of fact, the term meme makes the issue not simpler but rather more complicated, since the definition of this term is still under discussion. However, rather than inventing some new word, I will adopt it here, though I will not give a detailed account of the theory of memetics; for such an account see, for instance, Dawkins (1976, chapter 11) or Blackmore (1999).

⁴² "We need a name for the new replicator, a noun that conveys the idea of a unit of cultural transmission, or unit of imitation. 'Mimeme' comes from a suitable Greek root, but I want a monosyllable that sounds a bit like 'gene'. I hope my classicist friends will forgive me if I abbreviate mimeme to meme." (Dawkins 2006: 192)

are activated together. For example, a word consists of several constituents, such as a particular concept or meaning, or information on spelling and pronunciation. Phonemes which have no meaning or concepts which cannot be expressed are relatively useless for communicational purposes; together they form a meaningful unit. The whole cell assembly is expressed together, and gets replicated together. Thus a meme can be considered as smallest meaningful unit of replication.

A particular meme, then, is characterised by the relations/connections between particular cell nodes; “it is a matter of constituents being associated with one another. It does not involve locations but relations between nodes” (Ritt 2004: 164). In this sense words can be assumed to be stored in a similar way in different minds/brains, because they do not have to be essentially the same but the configuration for a word must only have the same links to the same cell nodes. This sense of similarity makes it possible for words to ‘copy’ from brain to brain.

When a meme replicates, i.e. places copies of itself in another mind/brain, the synapses, i.e. links/associations between the particular cell nodes within the assembly (within the ‘network configuration’), are strengthened, in both minds/brains, the sending and the receiving one.⁴³

Thus we can say that intensifiers are memes inside our minds/brains that co-operate and compete with one another in order to get expressed, and hence manifested in our own minds/brains, and (possibly) copied to another brain.

4.2.1 Co-operation between lexical items and the function of intensification

The mental representations of intensifiers have relations to the mental pattern for the function of intensification (F{int}), next to (and eventually instead of) the

⁴³ When we learn a poem by heart, the more often we rehearse it, the better we remember it (strengthening of relations in the speaker’s mind/brain through the expression of the meme); also the more often we are exposed to the expression of a word (i.e. we hear/listen to a word) the stronger it is manifested in our minds/brains (strengthening of relations in the listener’s mind/brain through being exposed to the expression of a meme), e.g. we are very often exposed to our first (given) name so that it will catch our attention every time it is uttered by someone around us; i.e. repetition strengthens the respective associations in memory.

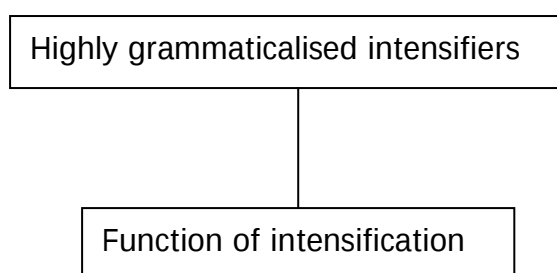
relations they have to their primary meaning. The F{int} must be expressed and therefore needs words; but why would words need to connect to the F{int}?

Highly grammaticalised intensifier-memes (HGIs) might give an answer to this question. As we have seen the association with the F{int} goes hand in hand with a rise in frequency. In this sense it would pay for an adverb to build an alliance with the F{int} because this would increase its chances of getting more frequently expressed, and consequently copied.

Alliances come about simply because replicators may manage to replicate well only in co-operation with others. (Ritt 2004: 74)

An intensifier like *very* co-operates with the function of intensification so strongly that it has abandoned all the other alliances it had before, such as the relation to its primary meaning (i.e. the associations to the mental representations of the concept of ‘truth, reality’). Thus, frequency and the extent of semantic bleaching correlate with the strength of relation between a meme and the F{int} in the speaker’s mind/brain. Highly bleached intensifiers (Figure 32) have built a very strong alliance with this function, and have lost the relations to other meanings/concepts.

Figure 32 Correlation between extent of grammaticalisation and strength of relation to the function of intensification: strong relation



When the function of intensification is activated in the brain a HGI has good chances to get activated as well. Through frequent use (in this function) the links are even further strengthened.

In this respect a word gets an advantage out of the alliance with the $F\{int\}$; however the more words which occupy this function the greater the competition between them.

4.2.2 Competition between intensifier-variants

Different intensifier-memes are alternative ways of saying the same thing; they are variants for the function of intensification. Thus, changes in intensifiers can be regarded as

processes in which variants of memetic replicators compete against one another against a background of selection pressures that are, from their point of view, constant and admit a gradual replacement of less fit variants by fitter ones. (Ritt 2004: 228)

Intensifier variants compete for brain space in general, and for being expressed in a particular situation. The more often a certain intensifier is expressed the greater its chances to be remembered. According to Ritt (2004) the selectional pressures predominantly comprise genetic, memetic, and social factors. Genetic pressures basically are the genetic requirements for expressing a meme; we assume that, due to the maxim of economy, memes that are easily articulated will be preferred. Social pressures include, for instance, linguistic conventions and register restrictions, and correlate with the maxims of clarity, conformity, and extravagance.

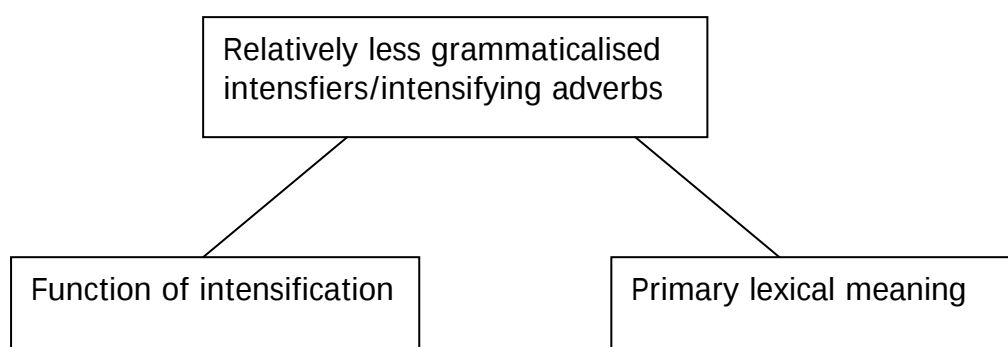
The most dominant constraints in the development of an intensifier-meme are memetic, i.e. the adaptation to other intensifier-memes in the immediate environment (i.e. in the speaker's mind/brain). As mentioned above the specific position/function of intensification in the mind/brain can be occupied by many different word-variants, which will then lead to the competition for brain space between these variants, and consequently to the selection of particular variants over others. Each time the $F\{int\}$ gets activated many different words wait to be expressed; the more words the more competition between them. The more often a

particular intensifier-meme is triggered, the stronger its relations to the function of intensification.

The competition between intensifier variants, in the form of replacement and the emergence of new variants, can especially be observed in relatively less grammaticalised intensifier(-meme)s (RLGIs). The maxim of extravagance triggers ever new grammatisation processes and leads to a constant competition between intensifier variants, which is strongest between semantically similar adverbs.

Relatively less grammaticalised intensifiers still have relations to their primary meaning, which means that their alliance with the function of intensification is weaker than that of highly grammaticalised intensifiers. While the expression of HGIs is exclusively triggered by the F{int}, the expression of a RLGI can be triggered by either the F{int} or the primary lexical meaning (Figure 33). Let us assume that an intensifier-meme can co-operate to 100% with one other meaning/function only, and if it is part of more alliances it has to divide those 100% amongst them; the more alliances the weaker each relation. This means that, very generally speaking, RLGIs co-operate with the function of intensification only half as much as HGIs.

Figure 33 Correlation between extent of grammaticalisation and strength of relation to the function of intensification: weaker relations; still associations to primary lexical meaning

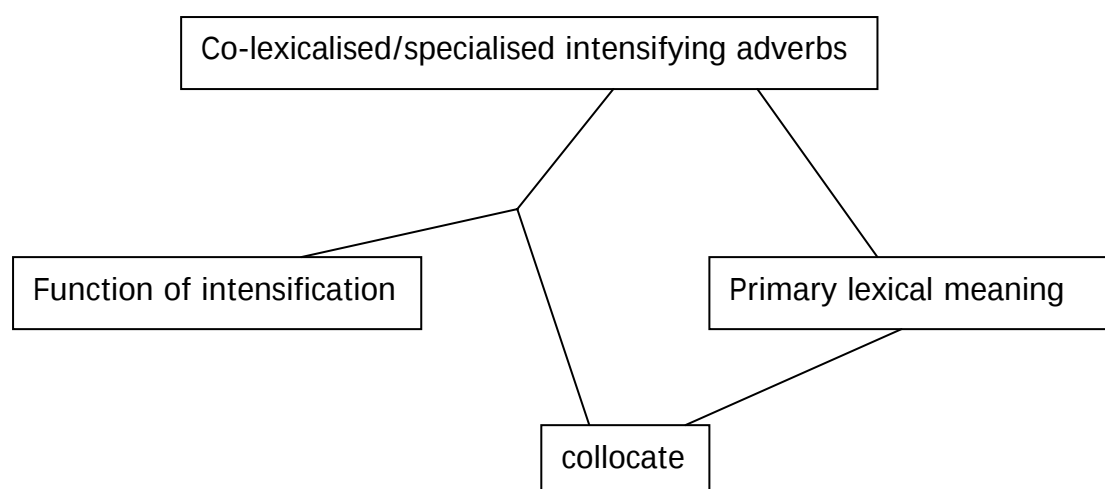


Co-lexicalised or specialised intensifying adverbs have the weakest links to the function of intensification; they connect to it indirectly through the link to another word (Figure 34). Their status can be described as prior to an invisible-hand process, i.e. as not yet conventionalised. Due to their low frequency and their indirect relation

to the function of intensification they do not change the (memetic) environment of relatively less grammaticalised intensifiers, which means that they do not form part of the competition.

Specialised intensifying adverbs collocate with a particular adjective via their primary lexical meaning. The combination of the adverb with this particular adjective is then exploited as a whole phrase; the intensifying function is implied in the collocation, not in the adverb alone. This means that the context in which it can be expressed is very restricted because it has to allow for the whole collocation; the expression of a co-lexicalised/specialised adverb in the F{int} not only depends on its own primary meaning but also on the meaning of the adjective with which it collocates.

Figure 34 Correlation between extent of grammaticalisation and strength of relation to the function of intensification: relation only exists via another word; still strong relations to primary lexical meaning



Competition is strongest between RLGIs, judged by the frequency fluctuations shown in chapter 3. Semantically similar intensifiers replace each other, new intensifiers emerge, triggering new invisible-hand processes (including grammaticalisation and rise in frequency). The memetic environment for RLGIs is constantly changing, which

enhances competition between the individual RLGIs because each one has to keep up with the changes. Changes in RLGIs are adaptations to, and reflect, changes in their memetic environment. So when everything is changing, how much change does take place at all? Take the example of the *awfully/terribly* group discussed in the previous chapter (Figure 19); after a strong competition in the first half of C20, at the end of the period all three intensifiers are in a similar place as they were more than a century before; the changes in between this period might have been necessary for them in order to stay in the same position. *Terribly* was expressed eight times per one million words in the 1870s and nine times per million in the 2000s; *awfully* changes from three expressions per million in the 1860s to five in the 2000s, and *awful* from two (2.54) in the 1810s to two (2.44) in the 2000s. The changes in between seem to be attempts to catch up with the environment; not to change bears the risk of weakening the connections to the F{int} and of losing the possibility to get expressed at all. In order to avoid the worst-case scenario of not to get expressed (and in the end not to be remembered) anymore, RLGIs keep their relations to their primary meanings. However, the stronger the links to their primary meanings the weaker the links to the F{int}. Since the F{int} is very prominent, in the sense that it is very often activated and hence offers many occasions for a word to get expressed, an RLG I might strengthen its connections to the F{int}, whereby the relations to its primary lexical meaning will automatically be weakened.

Figure 35 Strength of relations between a RLG I and the F{int}, depending on the strength of the RLG I's associations to its primary lexical meaning.

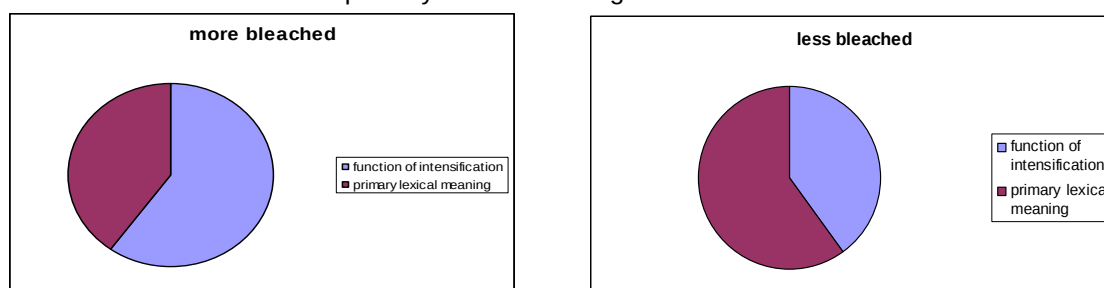
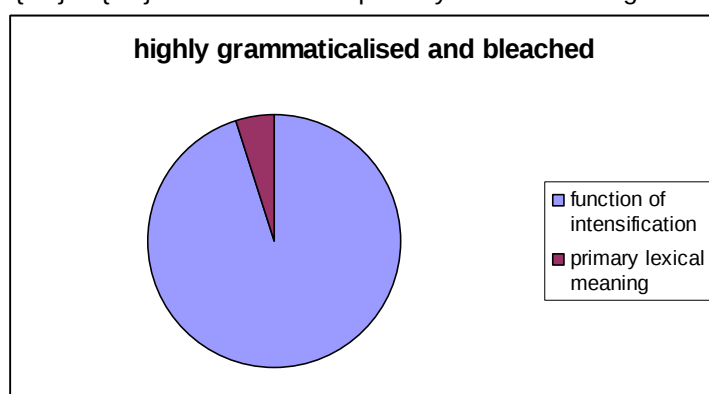


Figure 35 is an attempt to illustrate the point that an intensifier or an intensifying adverb can have either a few strong links or many weaker links, since the relation to one meaning/function influences the strength of relation to another.

When a RLGI wants to keep its relations to the F{int} it must adapt to an environment which is characterised by competition; in order to be more often activated by the F{int} than others it has to further strengthen its relations, that is, it has to co-operate stronger than its competitors. When a RLGI builds an even stronger alliance with the F{int} it weakens its association with its (originally) primary meaning. After an invisible-hand process, in which the intensifying meaning of the RLGI is further spread and conventionalised, an RLGI might become a HGI, the primary meaning of which is an intensifying one (Figure 36).

Figure 36 Strength of relations between a RLGI and the F{int}. F{int} has become the primary lexical meaning.



A highly grammaticalised and semantically bleached intensifier has so often been activated by the F{int} that that the relation to its original lexical meaning has almost ceased to exist. When the lexical meaning was activated the HGI would not react because it was waiting for a signal from F{int}, or was already occupied by F{int}.⁴⁴ The information that the word-meme did not react, is then stored in the neurons and eventually the synapses will stop sending signals to the word-meme, because it

⁴⁴ *Awful*, for example, when used as intensifier cannot be used as lexical word anymore in the same phrase; compare *awful* bad – *pretty/perfectly/really* awful, but not **awful* awful.

proved unreliable (it did not follow the command). HGIs can, however, bear this risk because for them the activation through the F{int} is a full-time job anyway.

RLGIs try to balance the relation to both, function and meaning. But once their expression as intensifier is widely spread it becomes harder for them to keep the relations to their primary lexical meaning. The loss of the relations to the primary lexical meaning might, however, offer new opportunities for a RLGI or a HGI; they now have more resources left for co-operating with other concepts, which could revive their intensifying meaning, such as some subjective-evaluative component.

We can summarise the competition between RLGIs as adaptations to an environment which is constantly changing due to the constant emergence of new RLGIs through the maxim of extravagance. This idea can be illustrated as in figure 37 below: the strengthening of an adverb's relations to a specific aspect of its primary lexical meaning may lead to an intensifying meaning/function, which is evoked by the maxim of extravagance (a mentally manifested maxim of action). Depending on environmental constraints (or ecological conditions), which comprise social pressures, such as the status of the speaker who refers to the new meaning, but also pressures inside the speaker's mind/brain the new meaning spreads (or not). Minds/brains prefer words they are frequently exposed to because "frequent occurrence of a cognitive event leads to a greater ease of processing (routinization, automation), i.e. less attention is necessary to execute the same task." (Haspelmath 1999: 1055). Thus frequent words inevitably trigger an invisible-hand process, because their frequency leads to routinisation, and the minds/brains of speakers all have the same intention of saving energy.

A grammatical function which is so emotionally loaded as the F{int} will, despite the maxims of economy, clarity, and conformity, always require new expressions, coined by individual speakers whose minds/brains follow the maxim of extravagance; and the circle of change is completed.

The seemingly ever-changing nature of intensifiers can thus be seen as the result of a never-ending circle of change, which is kept in motion through the struggle between extravagance and routinisation or conformity.⁴⁵

⁴⁵ Or the "asymmetry of the opposites extravagance and conformity", which Haspelmath (1999: 1059) assumes "to lie at the root of the unidirectionality of grammaticalization". The circle suggested here can also be regarded as unidirectional.

Figure 37 Change in RLGIs

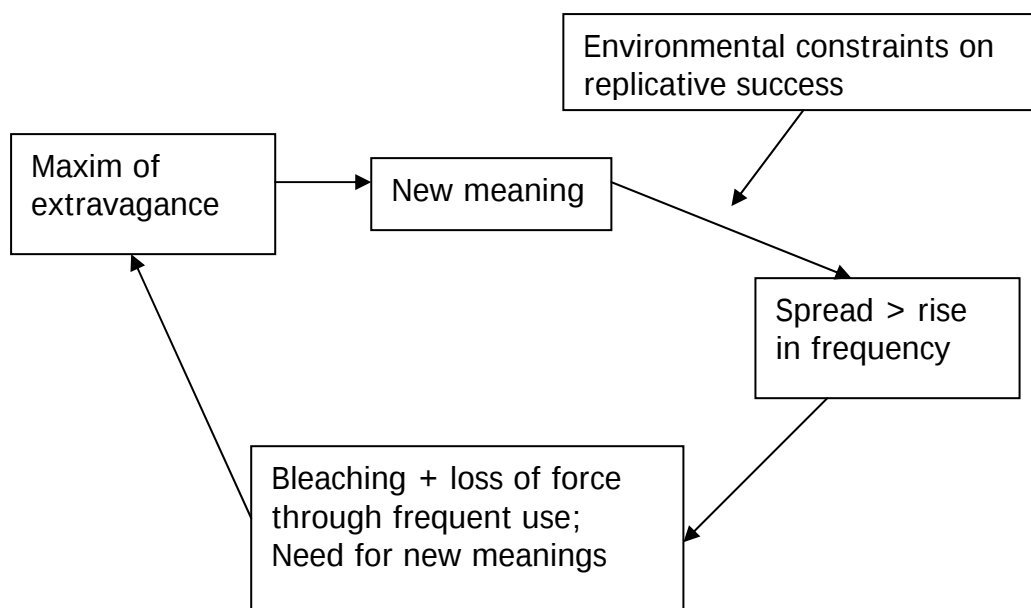


Figure 37 not only illustrates the emergence of a new intensifying adverb, but also the development of an already grammaticalised intensifier. In the first round an adverb would be conventionalised as intensifying adverb, in the second it would strengthen the relation to the F{int} (the extravagance being the semantic bleaching of the intensifying adverb) and lead to its status as highly grammaticalised intensifier. In a third round a HGI might connect to a more subjective aspect of meaning and so revive its extravagance again.

Thus, changes are the result of intensifier-memes attempting to stay in a successful position. The emergence of new variants forces already existent ones to compete with them; intensifiers have to strengthen their relations to the F{int}, in order to defend their territory against competitors, and at the same time they have to build relations to new meanings/functions in order to remain extravagant. Once they have strengthened the relations to the F{int}, and risen in frequency, they can then build new alliances, without losing their position in the alliance with F{int}. That is, intensifiers change only to stay where they are.

In this sense change in intensifiers, especially in RLGIs, can be compared to change in *Wonderland*, where you have to run in order to stay in the same place.⁴⁶

Red Queen theories hold that the world is competitive to the death. It does keep changing. [...] The point about the Red Queen is that she runs, but stays in the same place. The world keeps coming back to where it started; change there is, but not progress. (Ridley 1993: 62)

The dominant way for intensifiers to remain stable is to keep changing. We can make guesses about the development of individual intensifiers but we still cannot predict the preference of one intensifier over another. We cannot (yet) implement a (neuronal configuration for a) word in another individual's mind/brain; i.e. we cannot influence the success of a word.

What we can say is that an intensifying adverb which has been subject to an invisible-hand process is conventionalised as intensifier and widely spread. The more frequently it is used, the longer it will remain manifested in the speakers' minds/brains. An intensifier that has been used as frequently and widespread as *very* is manifested so strongly and in so many minds/brains that it would take many centuries to let *very* disappear.⁴⁷

⁴⁶ "Well, in *our* country," said Alice, still panting a little, "you'd generally get to somewhere else –if you ran very fast for a long time as we've been doing."

"A slow sort of country!" said the Queen. "Now, *here*, you see, it takes all the running *you* can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!" (Lewis Carroll, *Through the Looking-Glass* (1872), chapter 2, (Penguin 1998): 143)

⁴⁷ Given the fact that *very* has already existed in speakers' minds/brains for more than five centuries;

5. Conclusion

In the first three chapters I have tried to show the patterns of development in the history of intensifiers and intensifying adverbs in American English in the last two centuries. It turned out that the change in intensifiers is driven by grammaticalisation processes, which lead to changes in frequency, to semantic bleaching, and to changes in the collocational behaviour of an intensifier.

Further research on this topic might include the study of intensifiers in spoken language, as compared to written language, or a comparison between British and American English intensifiers. Furthermore, the investigation of a longer period of time would probably yield more common long-term patterns in the development of intensifiers.

In a very simplified and speculative afterthought I suggested that the grammaticalisation of intensifiers can be seen as an invisible-hand process, led by the maxim of extravagance and the maxim of conformity. A close examination of the actual process whereby meanings spread would probably be best thought of in the frame of evolutionary linguistics and/or sciences of complexity.

6. References

- Bäcklund. 1973. *Collocations of Adverbs of Degree in English*. Uppsala: Uni Press.
- Benveniste, Émile. 1977. Über die Subjektivität in der Sprache. In: *Probleme der allgemeinen Sprachwissenschaft*, trans. Wilhelm Bolle. Frankfurt/Main: Syndikat Autoren- und Verl.-Ges., 287-297.
- Biscetti, Stefania. 2006. "The diachronic development of the intensifier bloody. A case study in historical pragmatics." In Dury; Gotti; Dossena. [eds.]. *English Historical Linguistics Vol. II: selected papers from the fourteenth International Conference on English Historical Linguistics (ICEHL 14), Bergamo, 21 - 25 August 2006: Lexical and semantic change*. Amsterdam: Benjamins, 53ff.
- Blackmore, Susan. 1999. *The Meme Machine*. Oxford: Oxford University Press.
- Bolinger, Dwight. 1972. Degree Words. Paris: Mouton.
- Brinton, Laurel J. Traugott, Elizabeth Closs. 2005. *Lexicalization and Language Change*. Cambridge: Cambridge University Press.
- Bußmann, Hadumod. 2002. *Lexikon der Sprachwissenschaft*. Stuttgart: Kröner
- Bybee, Joan; Fleischmann, Suzanne. 1995. "Modality in Grammar and Discourse. An introductory essay." In Bybee; Fleischmann. [eds.]. *Modality in Grammar and Discourse*. Amsterdam: Benjamins, 1-14.
- Cacchiani, Silvia. 2005. "Towards a corpus-based combinatory dictionary of English predicate-intensifier collocations". In: *Towards a Model for a Contemporary Dictionary: A Semantico-Pragmatic Approach to Lexical Combinatory Patterns*. M. Bertuccelli Papi (ed.). Pisa: Plus, 45-98
- Cacchiani, Silvia. 2009. "Lexico-functional categories and complex collocations: The case of intensifiers." In Römer; Schulze. [eds.]. *Exploring the Lexis-Grammar Interface*. Amsterdam: Benjamins, 229-246.
- Croft, William. 2000. *Explaining Language Change*. Harlow: Longman
- Davies, Mark. 2008. The Corpus of Contemporary American English (COCA): 410+ million words, 1990-present. Available online at <http://www.americanacorporus.org>.
- Davies, Mark. 2010. The Corpus of Historical American English (COHA): 400+ million words, 1810-2009. Available online at <http://corpus.byu.edu/coha>.
- Dawkins, Richard. 2006 (1976). *The Selfish Gene*. [30th Anniversary edition]. Oxford: Oxford University Press
- Dennett, Daniel. 1990. "Memes and the exploitation of imagination". *Journal of Aesthetics and Art Criticism* 48, 127-35.

- Dennett, Daniel. 1998. "The evolution of culture". *Journal of Memetics – Evolutionary Models of Information Transmission* 2, 438-450.
- Fettig. 1938. „Die Gradadverbien im Mittelenglischen“. Heidelberg: *Anglistische Forschungen* 79.
- Haspelmath, Martin. 1999. "Why is grammaticalization irreversible?". *Linguistics* 37-6, 1043-1068.
- Hock, Hans Henrich; Joseph, Brian D. 1996. "Semantic change". In: Hock; Joseph. *Language History, Language Change, and Language Relationship: An Introduction to Historical and Comparative Linguistics*. Berlin: Mouton de Gruyter, 215-252 (ch.7).
- Hoenigswald, Henry M. 1992. "Semantic change and 'regularity': A legacy of the past". In Kellermann, Günter. [ed.]. *Diachrony within synchrony: language history and cognition: papers from the papers from the international symposium at the University of Duisburg, 26 - 28 March 1990*. Frankfurt/Main: Lang, 85-105.
- Hull, David L. 1998. "Strategies in Meme Theory. A commentary on Rose's paper: Controversies in Meme Theory. *Journal of Memetics – Evolutionary Models of Information Transmission* 2, 929-931.
- Ito, Rika; Tagliamonte, Sali. 2003. "*Well* weird, *right* dodgy, *very* strange, *really* cool: Layering and recycling in English intensifiers". *Language in society* 32, 257-279. (Cambridge: CUP.)
- Kirchner, Gustav. 1955. *Gradadverbien: Restriktiva und Verwandtes im heutigen Englisch (britisch und amerikanisch)*. Halle (Saale): Niemeyer.
- Krüger, Gustav. 1914. *Schwierigkeiten des Englischen: Synonymik und Wortgebrauch*. (2nd edition). Dresden: Koch.
- Matthews, P.H. 2007. *Oxford Concise Dictionary of Linguistics*. (2nd edition) Oxford: OUP.
- Méndez-Naya, Belén. 2006. "The which is most and right harde to answer: Intensifying right and most in earlier English". In Dury; Gotti; Dossena. [eds.]. *English Historical Linguistics Vol. II: selected papers from the fourteenth International Conference on English Historical Linguistics (ICEHL 14), Bergamo, 21 - 25 August 2006: Lexical and semantic change*. Amsterdam: Benjamins,
- Nevalainen, Terttu; Rissanen, Matti. 2002 "Fairly pretty or pretty fair? On the development and grammaticalization of English downtoners". *Language Sciences* 24, 359-380.

- Paradis, Carita. 1997. *Degree modifiers of adjectives in spoken British English*. London-Lund: University Press.
- Partington, Alan. 1993. "Corpus Evidence of Language Change: The Case of Intensifier." In Baker; Francis; Bonelli. [eds.]. *Text and Technology. In Honour of John Sinclair*, Philadelphia, Pa.: Benjamins, 177-192.
- Peters, Hans. 1992. "English boosters: Some synchronic and diachronic aspects." In Kellermann, Günter. [ed.]. *Diachrony within synchrony: language history and cognition: papers from the papers from the international symposium at the University of Duisburg, 26 - 28 March 1990*. Frankfurt/Main: Lang, 529-545.
- Pinker, Steven. 1994. *The Language Instinct. How the mind creates language*. New York: Harper Perennial
- Plotkin, Henry C. 1994. *Darwin Machines and the Nature of Knowledge*. Cambridge, MA: Harvard University Press.
- Quirk, Randolph. 1985. *A Comprehensive Grammar of the English Language*. London: Longman.
- Ridley, Matt. 1993 (1992). *The Red Queen. Sex and the Evolution of Human Nature*. London: Penguin.
- Ritt, Nikolaus. 1996. "Darwinising historical linguistics: applications of a dangerous idea". *VIEWS* 5, 27-46.
- Ritt, Nikolaus. 1998. "Language change as evolution: looking for linguistic 'genes'". *Journal of Memetics – Evolutionary Models of Information Transmission* 2, 1350-1360. Originally published 1995 in: *VIEWS* 4, 43-57.
- Ritt, Nikolaus. 2004. *Selfish Sounds and Linguistic Evolution*. Cambridge: Cambridge University Press.
- Rose, N. 1998a. "Controversies in Meme Theory". *Journal of Memetics – Evolutionary Models of Information Transmission* 2, 1361-1372.
- Rose, N. 1998b. "Who would escape the tyranny of the replicators". Reply to the commentaries on the author's paper: Controversies in Meme Theory. *Journal of Memetics – Evolutionary Models of Information Transmission* 2, 1373-1375.
- Schleicher, August. 1873 (1863). *Die Darwinische Theorie und die Sprachwissenschaft* [2nd edition]. Weimar: Böhlau.
- Sinclair, John. 1991. *Corpus, concordance, collocation*. Oxford: Oxford University Press.
- Sinclair, John. 1992. "Trust the text: The implications are daunting." In Davies. [ed.]. *Advances in Systemic Linguistics: recent theory and practice*. London: Pinter, 5-19.
- Sinclair, John. (ed.). 2005. *Collins-Cobuild English Grammar*. (2nd edition). Glasgow: HarperCollins.

- Soanes, Catherine; Stevenson, Angus. (eds.) 2004. *Concise Oxford English Dictionary*. (11th edition). Oxford: Oxford University Press.
- Spitzbardt, Harry. 1965. "English adverbs of degree and their semantic fields." *Philologica Pragensia* 8, 349-359.
- Stoffel, C. 1901. *Intensives and down-toners: a study in English adverbs*. Anglistische Forschungen.
- Traugott, Elizabeth Closs. 1989. "On the Rise of Epistemic Meanings in English: an example of subjectification in semantic change". *Language* 65, 31-55.
- Traugott, Elizabeth Closs. 1995. "Subjectification in grammaticalisation". In Stein, Dieter; Wright, Susan. [eds.]. *Subjectivity and subjectivisation*. Cambridge: Cambridge University Press, 31-54.
- Traugott, Elizabeth Closs. 2002. *Regularity in semantic change*. Cambridge: Cambridge University Press.
- Traugott, Elizabeth Closs. 2003. "From subjectification to intersubjectification". In: Hickey, Raymond. [ed.]. *Motives for Language Change*. Cambridge: Cambridge University Press, 124-139.
- Wray, Alison; Bloomer, Aileen. 2006 (2nd edn.). *Projects in Linguistics. A practical guide to researching language*. London: Hodder.

7. Appendix

The enclosed appendix contains the material which formed the basis for the research. The information from the corpus has been summarised into a frequency list, and a list of collocates.

The frequencies of each intensifier are normalised, which means that the numbers in the tables on pages 91-94 are the numbers of occurrence per one million words in the corpus (per decade).

In the list of collocates (pp. 95-100) the frequency ranges are a classification according to absolute numbers of co-occurrences of an intensifier together with (i.e. in front of) a particular adjective in the corpus. The list was primarily used to see if there are intensifiers which are part of a strong collocation, and to compare the meaning of frequent collocates of one intensifier, or the difference/similarity in collocates of different intensifiers.

The third part of the appendix (pp. 101-104) gives the semantic origin of intensifiers, i.e. dictionary definitions of the adjectives from which intensifiers derive(d), which helped in determining the extent of semantic bleaching.

Appendix 1: Frequency list
numbers of occurrence per decade per one million words

COHA	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
absolutely	21,16	22,38	22,29	19,5	21,67	21,93	31,14	26,43	33,25	36,47
altogether	27,94	29,45	29,26	27,17	23,31	21,81	20,42	23,92	19,22	17,73
awful	2,54	0,58	1,96	1,74	2,12	6,45	6,63	9,55	6,07	11,86
awfully	0	3,18	1,45	1,5	1,34	2,35	8,24	7,68	13,74	12,35
completely	8,47	10,25	11,98	10,53	9,9	9,67	11,04	7,28	9,13	8,33
damned	6,77	2,45	<1	<1	<1	<1	<1	1,53	1,99	3,08
eminently	3,39	8,52	9,29	7,98	11,35	8,85	8,13	7,53	5,92	4,84
entirely	23,7	52,55	57,35	47,29	48,57	45,85	49,83	47,5	45,14	44,35
exceedingly	13,55	28,58	32,74	31,9	33,63	25,15	27,31	24,66	29,51	18,42
extraordinarily	0	0,29	0,51	0,25	0,18	0,7	1,51	1,77	2,43	3,21
extremely	27,94	45,91	33,76	32,84	23,07	22,87	32,7	32,59	27,62	29,73
highly	44,02	56,88	54,3	41,62	41,1	33,13	26,83	28,45	30,05	37,2
incredibly	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
infinitely	4,23	12,85	7,33	7,85	6,56	7,09	7,6	6,25	6,46	7,87
intensely	0,85	4,33	4,36	4,61	6,19	7,27	9,91	8,96	10,15	10,27
mighty	17,78	8,52	17,5	16,01	18,46	15,6	15,52	25,64	25,14	31,77
overly	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
particularly	21,16	22,66	25,92	17,76	18,7	14,72	15,68	17,87	20,39	23,4
peculiarly	16,93	25,7	21,05	14,39	16,39	13,25	14,92	11,42	11,6	10,59
perfectly	29,63	60,49	56,05	62,93	68,42	58,05	77,95	70,93	62,67	54,4

COHA	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
real	5,08	7,51	7,48	7,85	12,45	16,07	21,12	17,82	15,1	21,31
really	23,7	28,15	19,67	21,31	33,33	31,43	40,67	38,15	41,26	44,08
remarkably	7,62	13,71	14,16	10,78	11,11	10,5	8,84	9,99	7,23	7,38
singularly	8,47	12,41	12,78	12,09	12,93	9,85	12,12	12,65	11,41	10,32
surpisingly	0	1,3	0,73	0,87	0,97	0,94	1,45	1,53	1,75	2,31
terribly	3,39	3,18	1,81	2,74	5,52	6,16	8,46	6,45	6,41	6,34
thoroughly	3,39	7,22	7,33	10,79	15,06	20,7	27,37	23,28	24,95	20,55
totally	19,47	15,45	13,58	10,97	10,75	9,91	7,81	8,32	7,86	7,56
truly	38,94	40,42	30,06	31,65	29,63	25,92	22,95	16,29	13,35	14,8
utterly	15,24	30,46	27,08	30,22	29,32	30,55	38,3	29,14	23,93	22,45
very	575,68	761,06	787,1	844,76	1038,63	905,37	1069,91	1052,33	937,05	778,00
wonderfully	0	4,04	2,11	4,98	4,49	7,09	8,19	8,17	8,06	8,69

1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	COHA
37,36	24,01	22,72	18,32	22	23,98	25,36	19,87	17,82	17,89	absolutely
17,09	14,19	10,32	6,9	7,21	8,34	6,21	5,65	3,79	3,35	altogether
19,16	10,49	8,54	7,52	7,33	4,21	4,2	2,84	3,11	2,44	awful
19,03	16,64	19,55	9,94	12,92	9,47	9,07	6,04	5,91	4,5	awfully
12,51	12,51	24,43	32,36	39,52	34,32	29,56	27,3	34,36	36,53	completely
5,29	7,13	13,37	13,39	12,63	8,34	9,28	12,48	4,58	5,21	damned
4,27	<4	<4	<4	<4	<4	<4	<4	<4	<4	eminently
46,3	48,84	40,32	37,21	32,55	31,2	25,61	25,24	21,44	22,39	entirely
20,09	14,7	10,53	9,69	6,89	5,09	5,5	4,62	2,9	3,21	exceedingly
5,73	5,93	4,71	4,44	5,54	5,34	4,58	5,77	5,08	4,36	extraordinarily
32,25	36,72	38	36,55	38,5	35,99	37,08	33,26	36,93	34,73	extremely
39,21	42,06	46,05	46,04	54,06	54,93	51,9	55,7	44,38	44,68	highly
<5	<5	<5	5,67	4,77	6,09	6,3	6,48	8,73	12,34	incredibly
7,14	8,3	6,99	5,59	5,09	4,75	5,5	4,07	<4	<4	infinitely
9,38	8,61	5,69	4,11	5,83	3,92	4,2	4,9	4,33	4,84	intensely
31,76	26,35	18,78	18,81	17,72	8,97	8,78	6,24	5,12	5,28	mighty
<1	<1	<5	<5	<5	5,21	5,37	6,44	6,87	8,32	overly
24,36	27,95	30,61	28,46	32,27	35,03	35,78	41,16	40,84	43,32	particularly
9,74	6,47	5,53	<5	<5	<5	<5	<5	<5	<1	peculiarly
71,36	52,51	43	33,72	36,67	31,82	25,61	26,78	26,84	28,41	perfectly

1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	COHA
29,25	23,7	17,15	20,25	41,72	34,04	38,97	43,41	51,39	38,96	real
49,69	44,01	45	51,26	57	61,06	69,96	58,3	85,57	95,71	really
6,43	6,12	5,77	6,16	7,7	8,26	8,69	7,94	9,27	7,98	remarkably
7,93	6,63	4,43	4,56	2,85	2,17	1,97	1,66	1	1,12	singularly
2,64	4,05	4,55	4,23	7,7	6,51	7,39	9,2	10,16	12,07	surprisingly
9,52	15,75	16,46	14,74	18,46	15,01	16,17	14,3	10,34	9,47	terribly
18,46	15,32	14,31	11,01	9,98	7,72	5,92	7,23	5,4	5,82	thoroughly
8,55	8,77	7,28	6,2	11,69	18,64	24,77	28,72	20,65	21,81	totally
16,65	13,57	11,18	12,24	16,5	18,02	18,35	23,78	22,65	23,47	truly
22,73	19,18	18,78	15,61	12,02	11,01	10,5	10,07	11,35	9,67	utterly
734,34	644,62	609,28	582,23	520,39	575,00	592,23	535,59	482,22	436,83	very
7,58	5,34	1,79	3,08	3,99	2,71	2,48	4,23	3,87	3,52	wonderfully

Appendix 2: List of collocates

intensifier	occurrence in front of a particular adjective in absolute numbers				
	> 1000	> 500	> 300	> 100	> 30
<i>absolutely</i>	(necessary)		essential certain	sure right impossible free true perfect	
<i>altogether</i>			different	new	
<i>awful</i>				good hard bad	
<i>awfully</i>			good sorry	nice glad hard	
<i>completely</i>			different	new free exhausted successful	
<i>damned</i>				good	
<i>eminently</i>				successful	
<i>entirely</i>	different new		free	satisfactory alone possible independent satisfied ignorant dependent clear unknown distinct destitute sure separate wrong safe successful	
<i>exceedingly</i>				difficult interesting small rare	

extraordinarily

high
difficult
good
large
beautiful

extremely

difficult

important

high
rare
interesting
small
low
dangerous
sensitive
good
anxious
limited
simple
hard
doubtful
valuable

highly

(developed)
important
probable
successful

respectable
educated
polished
specialized
interesting
skilled
desirable
cultivated
respected
unlikely
civilized
intelligent
organized
improbable
competitive
effective
significant
trained
complex
prized
sensitive
publicized
critical
(visible)
pleased
profitable
colored
technical
favorable
qualified
dangerous

incredibly

short

beautiful
stupid

	> 1000	> 500	> 300	> 100	> 30
<i>infinitely</i>				better greater worse superior	small varied complex preferable
<i>intensely</i>				interested interesting	cold hot personal practical
<i>mighty</i>			good glad	fine hard nice bad pretty quick sorry big proud	
<i>overly</i>					optimistic concerned
<i>particularly</i>			interested true	important good interesting strong anxious difficult (fond of) useful concerned hard pleased bad	
<i>peculiarly</i>					American interesting sensitive susceptible
<i>perfectly</i>		clear natural	safe good happy willing satisfied true	right free normal sure aware quiet familiar still calm plain lovely	

			straight frank obvious satisfactory simple legitimate smooth honest easy certain capable beautiful proper correct sound legal healthy reasonable possible splendid dry wonderful content
<i>real</i>		good	nice bad hard pretty big old (political, American) close fast quick
<i>really</i>	good	important great bad big interested	nice sorry hard serious true happy beautiful necessary glad fine sure dead wonderful afraid interesting sick worried mean dangerous

	> 1000	> 500	> 300	> 100	> 30
<i>remarkably</i>				good fine	
<i>singularly</i>					free beautiful
<i>surprisingly</i>					good large little small short strong
<i>terribly</i>				sorry wrong afraid hard important frightened	
<i>thoroughly</i>				familiar	good frightened disgusted alarmed American satisfied
<i>totally</i>		different		new unexpected ignorant	
<i>truly</i>			great	sorry remarkable national wonderful	happy beautiful good
<i>utterly</i>			impossible	unable incapable alone useless different unknown hopeless exhausted	
<i>very</i>	good different large small important great long	handsome angry pale cold fast dark common			

	hard	considerable			
	happy	real			
	nice	anxious			
	high	true			
	far	limited			
	young	sad			
	glad	similar			
	difficult	bright			
	bad	useful			
	strong	popular			
	close	rare			
	pretty	heavy			
	fine	hot			
	interesting	big			
	likely	funny			
	low	remarkable			
	beautiful	thin			
	old	sick			
	serious	dangerous			
	sorry	sweet			
	simple	slight			
	short	curious			
	kind	late			
	early	attractive			
	best	comfortable			
	pleasant	successful			
	strange	sure			
	fond	special			
	poor	clever			
	quiet	weak			
	little	valuable			
	rich	light			
	careful	deep			
	tired	dear			
	clear	expensive			
	near	grateful			
	busy	narrow			
	easy	grave			
	proud	natural			
		white			
		tall			
		wide			
		powerful			
		warm			
		slow			
		agreeable			
		plain			
<i>wonderfully</i>					beautiful good fine
	> 1000	> 500	> 300	> 100	> 30

Appendix 3: Semantic origin

intensifier	derivative of	adjective	meaning / definition of adjective (from: Concise OED 2004, s.v. [respective adjective])	meaning of adverb, if given separately
absolutely	<	absolute	1. not qualified or diminished; total. 2. not relative or comparative	1. with no qualification or limitation; totally. 2. used for emphasis or to express agreement 3. not viewed in relation to other things
altogether				completely. > in total. > on the whole
awful awfully	<	awful	1. very bad or unpleasant. 2. used for emphasis (e.g. an awful lot of letters) 3. (archaic) inspiring awe	1. (informal) very or very much (e.g. I'm awfully sorry) 2. very badly or unpleasantly
completely	<	complete	1. having all the necessary or appropriate parts; entire. 2. having run its full course; finished. 3. to the greatest extent or degree; total	totally; utterly
damned	<	damned	(informal) used to emphasize one's anger or frustration	
eminently	<	eminent	1. respected and distinguished within a particular sphere. 2. notable; outstanding	
entirely		entire	1. with no part left out; whole. (...); absolute.	completely
exceedingly	<	exceeding	very great	1. extremely. 2. (archaic) to a great extent
extraordinarily	<	extraordinary	1. very unusual or remarkable.	
extremely	<	extreme	very great. (...); exceptional	

highly	<	high	1. of great vertical extent. 2. great in amount, value, size, or intensity 3. great in rank or status	1. to a high degree or level. 2. favourably
incredibly	<	incredible	1. impossible to believe. 2. difficult to believe; extraordinary. > (informal) amazingly good	
infinitely	<	infinite	1. limitless in space, extent, or size > very great in amount or degree	
intensely	<	intense	1. of extreme force, degree, or strength 2. extremely earnest or serious ad usage: intense tends to relate to subjective or emotional responses	
mighty	<	mighty	1. very powerful or strong. 2. (informal) very large	(informal, chiefly N. Amer.) extremely
overly	<	over over-	1. extending upwards from or above. 2. at a higher level or layer than 3. higher or more than (a specified number or quantity). (prefix) 1. excessively (...) > completely	excessively
particularly	<	particular	1. denoting an individual member of a specified group or class. 2. especially great or intense	1. to a higher degree than is usual or average. 2. in particular; specifically
peculiarly	<	peculiar	1. strange or odd. 2. (peculiar to) belonging exclusively to 3. particular; special	
perfectly	<	perfect	1. having all the required elements, qualities, or characteristics. 2. free from any flaw; faultless. 3. complete; absolute	

real	<	real	1. actually existing or occurring in fact; not imagined or supposed 2. not artificial or made in imitation of something; genuine. 3. significant; serious	(informal, chiefly N. Amer.) really; very.
		for real	(informal phrase) used to emphasize that something is genuine or serious	
really	<	real	1. actually existing or occurring in fact; not imagined or supposed. 2. not artificial or made in imitation of something; genuine. 3. significant; serious	1. in reality; in actual fact. 2. very; thoroughly
remarkably	<	remarkable	extraordinary or striking	
singularly	<	singular	1. (grammar) > single; unique. 2. exceptionally good or great; remarkable.	
surprisingly	<	surprising	< noun 'surprise': 1. a feeling of mild astonishment or shock caused by something unexpected. < noun 'surprise': 2. an unexpected or astonishing thing	
terribly	<	terrible	1. extremely bad, serious, or unpleasant. 2. troubled or guilty. 3. causing terror	1. extremely. 2. very badly
thoroughly	<	thorough	1. complete with regard to every detail. 2. absolute; utter (used for emphasis)	1. in a thorough manner. 2. very much; greatly
totally	<	total	1. comprising the whole number or amount. 2. complete; absolute.	
truly	<	true	1. in accordance with fact or reality. 2. accurate or exact.	1. in a truthful way. 2. to the fullest degree; genuinely or properly. 3. really
utterly	<	utter	complete; absolute	

very	<	very	1. actual; precise > (archaic) real, genuine. 2. emphasizing an extreme point in time or space. 3. with no addition; mere	in a high degree
wonderfully	<	wonderful	extremely good, pleasant, or remarkable	

Abstract

Die vorliegende Arbeit behandelt den Wandel von englischen Gradadverbien im Rahmen der Grammatikalisierungstheorie. Es wurde eine Gruppe von Gradadverbien, oder Intensiva, untersucht, die im schriftlichen Sprachgebrauch Adjektive modifizieren, oder intensivieren. Die Untersuchungen beziehen sich auf einen Zeitraum von zweihundert Jahren (1810-2010) und den geographischen Raum Amerika.

Die grammatikalische Funktion der Intensivierung lässt sich in vielfacher Weise ausdrücken, und ist ein sehr expressives, teilweise subjektives und emotional geprägtes Mittel im täglichen Sprachgebrauch. Die Gruppe der Intensiva ist geprägt von Wandel und Wachstum, da die jeweiligen Begriffe mit der Zeit an Wirkungskraft verlieren und von neuen Wörtern/Begriffen ersetzt werden; so verwendet jede Generation andere Intensivadverbien. Die ausgetauschten Intensiva sterben jedoch nicht (gleich) aus, und somit steigt die Zahl der verschiedenen Gradadverbien insgesamt.

Dieser stetige Wandel und Wechsel in Intensivadverbien gibt Anlass zu genauerer Beobachtung dieser Gruppe von Wörtern. Inwieweit erklärt die Grammatikalisierungstheorie diesen dynamischen Prozess der diese Gruppe auszeichnet? Was passiert mit Intensivadverbien nachdem sie ersetzt wurden, und was passiert mit ihnen wenn niemand sie mehr verwendet?

Die Recherchegrundlage bildete ein Corpus, der eine Sammlung von Text(en) aus Büchern, Zeitungen und Zeitschriften zum Durchsuchen zur Verfügung stellt. Die Daten aus dem Corpus erlaubten eine Analyse von Intensivadverbien unter dem Aspekt des Wandels in Häufigkeit der Verwendung und in ‚Kombinationsfähigkeit‘ oder ‚Kombinationsbereitschaft‘ mit verschiedenen Adjektiven. Für die Analyse wurden die Intensiva in kleinere Gruppen unterteilt, deren Mitglieder gemeinsame Eigenschaften aufweisen. Verschiedene Intensivadverbien können sich in einigen Faktoren unterscheiden, so wie in ihrer Bedeutung, in der Art und Stärke der Intensivierung, und im Grad der Grammatikalisierung.

So wurde versucht Zusammenhänge zwischen bestimmten Eigenschaften von Gradadverbien zu bestimmen und Ähnlichkeiten in der Entwicklung ähnlicher Gradadverbien zu finden. Es wurde angenommen, dass Intensivadverbien, die stärker grammatikalisiert sind auch weiter verbreitet sind, d.h. häufiger verwendet

und mit mehr verschiedenen Adjektiven kombiniert werden, als weniger grammatikalisierte. Der Grund für diese Annahme liegt darin, dass häufig verwendete, und vor allem grammatikalisch gebrauchte, Wörter mit der Zeit an Bedeutung verlieren, und in ihrer Funktion häufig einsetzbar und mit verschiedensten Adjektiven kombinierbar sind. Weniger/schwächer grammatikalisierte Intensivadverbien haben ihre ursprüngliche Bedeutung (teilweise) erhalten, was zu einer Einschränkung an möglichen Kombinationen, und daher zu einer Einschränkung der Verwendungsmöglichkeit (oder Einsetzbarkeit), führt.

Die Corpus-Recherche hat die Erwartungen weitgehend erfüllt. Wie in allen Bereichen (der Linguistik) gibt es auch hier Ausnahmen. Es gibt häufig verwendete Intensivadverbien, die entgegen der Erwartungen, nur wenige Adjektive modifizieren, und es gibt weit einsetzbare, relativ stark grammatikalisierte Intensiva die wieder weniger verwendet werden.

Es wurde gezeigt, dass Intensivadverbien, ein Produkt der Grammatikalisierung, gewisse Gemeinsamkeiten in ihrer Entwicklung aufweisen. Trotzdem stellen sie ein sehr spezielles Phänomen in der Linguistik dar und bieten sich daher an mit speziellen, und vielleicht unkonventionellen, Methoden untersucht zu werden. Demnach beschäftigt sich der letzte Teil in einem sehr kurzen Nachgedanken mit der Frage wie neue Bedeutungen verbreitet, und letztendlich ‚konventionalisiert‘, werden. Hier wird angenommen, dass die Konventionalisierung einer neuen Bedeutung ein Phänomen der dritten Art darstellt, das einer Erklärung mittels unsichtbarer Hand bedarf.

CURRICULUM VITAE

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