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Speaker stance and evaluative *-ly* adverbs in the Modern English period

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Adjectives are the sugar of literature and adverbs the salt
(Henry James, quoted by Bosanquet (1924))

Abstract

Present-day English makes major use of adverbs for the expression of speaker stance, following what has been described as the adverbialization of speaker attitude. Two adverbial constructions have particular stance-expressing functions: those with an adverb that modifies a clause or sentence (SAdv) and those with an adverb that modifies an adjective phrase (AdjAdv). The emergence of modal and evaluative SAdv from verb-phrase-modifying adverbs (VPAdv) via inferencing and scope expansion has been well documented. There is a large literature on the diachronic development of present-day English intensifiers such as *absolutely* or *really*. Much less attention has been paid to the evaluative function of many AdjAdv. This paper focuses on the relationship between extra-clausal stance *-ly* adverbs of the SAdv construction and their intra-clausal counterparts of the AdjAdv construction. It is argued that *-ly* adverbial modification of adjectives cannot be reduced to intensification. It has become a favoured site for the expression of speaker evaluation, contributing to increase in information compression. The evaluative AdjAdv and SAdv constructions are seen to share a semantic schema, and by hypothesis belong to a single more abstract constructional schema. While earlier types appear to have evolved from circumstance adverbs, later types may have been coined by analogy in a cycle of increasing productivity.

Keywords

English, adverb, stance, grammaticalization, polysemy

1. Introduction

Present-day English (PDE) makes major use of adverbs for the expression of speaker stance or attitude, following what can be described as the adverbialization of speaker attitude over the Modern English period, or the “tendency to adverbialize speaker comments” (Swan 1991:411). This paper examines the way evaluative speaker stance can be expressed in English by *-ly* adverbs, many of which function both as adjective modifiers (AdjAdv) and as sentence modifiers (SAdv). The abbreviation AdjAdv will be used for adverbs that modify an adjective, on analogy with SAdv (sentence adverb) and VPAdv (verb phrase adverb). The focus of the paper is on the relationship between evaluative *-ly* stance adverbs in the SAdv construction (extra-clausal adverbs) and the AdjAdv construction (intra-clausal adverbs). By 'SAdv construction' (or SAdv+S) is meant one consisting of an adverb and a sentence over which it has scope. By 'AdjAdv construction' (or AdjAdv+Adj) is meant one consisting of an adverb and an adjective over which it has scope, such as *strangely quiet*, where the adverb *strangely* has scope over the adjective *quiet*. These two 'constructions' can be seen as schematic constructions in the sense of Construction Grammar (e.g. Goldberg 1995, 2006). In this framework, a 'construction' is a form-meaning pair, where the whole is not predictable from its parts, or where it is, but the pattern is frequent (Goldberg 2006:5). Croft observes that "construction grammar has generalized the notion of a construction to apply to any grammatical structure, including both its form and its meaning" (2001: 17).

The next section discusses the expression of stance in English through evaluative adverbs that have evolved over the Modern English period. This is followed in section 3 by an examination of the evaluative *-ly* adverbs *strangely* and *luckily*, which exemplify the kind of trajectory followed by many *-ly* adverbs, but also show that different adverbs can follow very different paths. Some of the historical examples are taken from corpora whose compilers are acknowledged in the Appendix. In Section 4 the developments of *strangely* and *luckily* are considered in the light of some different models of language change. Section 5 concludes.

2. Evaluative adverbs in present-day English

2.1 *Stance and evaluative adverbs*

A certain terminological profusion surrounding speaker stance reflects the difficulty both of delimiting 'what is said' from 'speaker comment on it' and of separating out types of stance. It also reflects different, if complementary, approaches to stance. Stance can be approached through the

notion of a 'stance conceptual space' encompassing the range of attitude that can be expressed towards a situation (that is, from an onomasiological perspective). The notion is useful but such a space is not easily mapped except on the basis of wide-ranging cross-linguistic data. It can also be approached from the point of view of categorizing linguistic expressions of stance (e.g. Biber and Finegan 1988, Biber et al. 1999), guided by the divisions a given language is seen to make.

We will take 'stance' as an umbrella term for all manner of speaker comment on some event or situation or entity, including epistemic judgments, degree judgments, value judgments and affect. This approach to stance is broadly in line with what Thompson and Hunston term 'evaluation': "the broad cover term for the expression of the speaker or writer's attitude or stance towards, viewpoint on, or feelings about the entities or propositions that he or she is talking about." (2000:5). The term 'evaluative adverb' is used in the present study in the sense of Bellert (1977) and Swan (1988a) to denote an adverb that expresses speaker affect or value judgment (Biber et al.'s (1999) 'attitudinal stance adverbial'). An evaluative adverb is thus one type of stance adverbial, alongside epistemic adverbs, degree adverbs, etc. 'Evaluation' refers here to the speaker's view of the desirability of a state of affairs or potential state of affairs, positive or negative affect towards it, and value judgments of its nature. Adverbs may combine in their meanings evaluation in this sense with other modal notions. Interesting wider phenomena are the tendency for the linguistic expression of much stance to be relatively grammaticalized, and the various ways in which stance meaning is distributed in language across different morphosyntactic categories and constructions, becoming redistributed over time.

2.2 Adverbialization of speaker stance

Diachronically, there has been a remarkable expansion in the English adverb class, notably with the gradual development and increasing productivity of the sentence adverb. As documented by Swan (1988a, 1988b, 1991, 1997), the small set of Old English epistemic-modal 'truthfully' adverbs expanded in Middle English with more types and increased token frequency. It was not until Early Modern English that a similar increase occurred in evaluative sentence adverbs of the type illustrated in (1d) below. Swan's data shows a seven-fold increase in evaluative sentence adverbs between Old English and present-day English (1988b), with most of that increase taking place over the Modern English period. The widespread adverbial expression of speaker evaluation in present-day English is thus a relatively recent phenomenon.

Modern English has also seen an expansion in the adverbial modification of adjectives (Peters 1994,

Nevalainen 2008). The AdjAdv construction begins to increase significantly in type frequency towards the end of the seventeenth century, and becomes remarkably productive in the nineteenth and twentieth centuries. The consolidation in the late sixteenth century of medial position as the default site for English adverbs (Rissanen 1999: 268f, Breivik and Swan 1994, Nevalainen 1994) may have facilitated this increase. Productivity increases when the construction is already well established with a set of frequent adverbs. Existing adverbs are recruited into the construction and new ones are coined, and in both cases analogy looks like a key mechanism. In the twentieth century the productivity appears to decline a little, but remains high, for instance with a range of *-ingly* adverbs being coined (Killie 1998; Broccias 2012)

This expansion has involved very many of the existing adverbial forms, as is the case for *curiously*. However, these AdjAdvS have received somewhat less attention in English adverb studies than VPAdvS and SAdvS. In fact the existence of a set of evaluative adjective-modifying adverbs is not universally accepted. As discussed by Morzycki (2015) and in section 2.3 below, there has even been a reluctance to describe AdjAdvS as adverbs at all, but rather to treat them as a separate category of 'degree modifiers', despite the fact that very many have the same forms as 'regular' adverbs.

The relation between adverb and semantic category is many-to-many (*cf.* Paradis 2008: 318) and plenty of *-ly* adverbs express both evaluation and degree. There appear to be both collocational effects, whereby the semantics of the adjective in context coerce the interpretation of the adverb, and constructional effects, resulting in the adverb acquiring degree functions. It will be argued that the expansion of both evaluative SAdvS and evaluative AdjAdvS can be viewed as the progressive compression of speaker stance meanings into more grammaticalized means of expression.

Much discussion of adverb classification harks back to Jackendoff (1972) who identified three major types of adverb: speaker-oriented adverbs, whose single argument is the functional structure of the sentence, subject-oriented adverbs, having both the sentence and the subject of the sentence as arguments, and lastly manner, degree and time adverbs (Jackendoff 1972: 69-72). Based on Jackendoff's classification, the class of speaker-oriented adverbs was further refined by Bellert (1977), who identified, again on the basis of distributional properties, five sub-types: evaluative (e.g. *fortunately*), modal-epistemic (e.g. *probably*), domain (e.g. *politically*[-speaking]), conjunctive (e.g. *however*) and 'pragmatic' (now often known as 'speech-act adverbials', e.g. *frankly*). These classifications rest on the prior syntactic division of adverbs into predicate-level adverbs and

sentence-level adverbs. Adopting different terminology, Biber et al. (1999:554) divide English adverbials into three broad semantic categories: stance adverbials encoding speaker judgment, linking adverbials (also known as adverbial connectives) encoding coherence relations; and circumstance adverbials encoding time, manner and place. Biber et al. (1999) further divide stance adverbials into three semantic sub-categories: epistemic stance adverbials (probability and evidentiality), style stance adverbials (qualifying the speech act) and attitudinal stance adverbials (expressing speaker evaluation). The approximate correspondences between categorizations can be seen in table 1.

Jackendoff (1972)	Bellert (1977)	Swan (1988a)		Biber et al. (1999)	
Speaker-oriented adverbs	Evaluative	Sentence adverbs	Evaluative	Stance	Attitude
	Modal (epistemic)		Modal (epistemic)		Epistemic
	Pragmatic		Speech Act		Style
	Domain			Linking adverbials	
	Conjunctive				Attitude
Subject-oriented adverbs					Degree modifiers
Manner, degree and time adverbs					Circumstance adverbials (place, time, manner)

Table 1. Some classifications of English adverbs

A striking feature of many English *-ly* adverbs is their ability to combine with different constituent types in what has traditionally been described as a pattern of polysemy. Discussing the emergence in Early Modern English of sets of evaluative and speech-act sentence adverbs, Swan notes that "the adverb usually becomes polysemous and functions both as SA [sentence adverb] and non-SA" (1988a:532). In the most common such polysemy pattern, a *-ly* form modifies variously a verb phrase (VPAdv), an adjective (AdjAdv), another adverb (AdvAdv), or a clause or sentence (SAdv). This is illustrated in (1) for the adverb *curiously*. *Curiously* in (1a) encodes the manner in which the men and women stared and says nothing about the speaker's attitude. But for (1b,c,d) the 'curiousness' is in the speaker's perception of the situation, not in the situation itself, and these examples can be glossed as 'that the smell of kid gloves was pervasive / that the audience gathered quickly / that it was the same story throughout the club ... was curious' (in the speaker's subjective view). Each of these three utterances thus expresses both a situation and the notion that the speaker

finds something about that situation curious.

- (1)
 - a. the crowds of men and women stared at them **curiously**. (1894, Hardy) [verb phrase adverb, VPAdv]
 - b. a **curiously** pervasive smell of kid gloves (1920, Woolf) [adjective-modifying adverb, AdjAdv]
 - c. a very fair audience (for the place which is out of the way) gathered **curiously** quickly (1887, Morris) [adverb-modifying adverb, AdvAdv]
 - d. **Curiously** enough, it was the same story throughout the Club. (c1895, Kipling) [sentence adverb, SAdv]

We are concerned here with evaluative stance adverbs that modify an adjective (AdjAdv), illustrated in (1b), and those that modify a clause (SAdv), illustrated in (1d). They fall under Quirk et al.'s category of disjunct sentence adverbs, specifically adverbial content disjuncts (1985:620ff), and Huddleston and Pullum's 'evaluative adjuncts' (2002:771).

Examples (2) and (3) from PDE suggest that the same speaker evaluation can be conveyed by the use of an evaluative adverb as a SAdv or as an AdjAdv. In each case, the adverbs of both the (a) and (b) examples can be interpreted as speaker judgment of a state of affairs.

- (2)
 - a. **Strangely**, it is in this area that the greatest fears .. exist. [1986, BNC-1, FE6]
 - b. N. wrote wonderfully on science in medieval China but was **strangely** inarticulate when questioned about Mao's Cultural Revolution. [1997, *Daily Telegraph*]

Example (2a) can be glossed as 'That it is in this area that the greatest fears .. exist is strange' or 'It is strange that it is in this area that the greatest fears exist'. *Strangely* is parenthetical with scope over the whole of the following clause. (2b) could be considered ambiguous between 'it was strange that N was inarticulate' and 'N was inarticulate to a strange degree' or even 'N was inarticulate in a strange manner'. From a syntactic point of view, *strangely* might therefore be categorized as, respectively, SAdv (scope over clause 'N was inarticulate'), AdjAdv (scope over adjective 'articulate') or VPAdv (scope over VP 'was inarticulate'). It could also be considered a case of dual analysis, as Himmelmann and Schultze-Berndt (2005:12-13) propose for adjuncts ("one and the same adjunct can be construed as simultaneously participant-oriented and event-oriented" (2005:12)) or of underspecification. It might also be argued that there is a mismatch between the

syntax and the interpretation, along the lines suggested by Broccias (2012) for those 'oriented' VP-adverbs which formally appear to modify the VP but functionally predicate a quality of one participant in the clause. In (2b) there might be a mismatch between the apparent scope over *inarticulate* and the most plausible reading, that the speaker views as strange the fact that 'N was inarticulate'. Example (2b) thus illustrates the greater ambiguity, vagueness or underspecification that has resulted from increasing adverbialization in English (see also ex. (5) below and discussion in section 4).

Example (3a) is directly comparable with (2a). By contrast, the attributive construction in (3b) precludes the ambiguity of (2b): *unsurprisingly* clearly modifies *complex*. Given the context, it seems unlikely that the speaker meant that the personal life of the minister was complex to an unsurprising degree, which would suggest 'only slightly complex'. The default interpretation is that the fact that the minister's personal life was complex is (in the speaker's opinion) not surprising. The adverb enables two propositions to be compressed into a single noun phrase.

- (3) a. The British prime minister is to appear on the cover of Vogue. **Unsurprisingly**, she is the first to have the honour. [2017, *Financial Times*]
b. The **unsurprisingly** complex personal life of Sarkozy's justice minister [2008, *Wired*]

These and many other examples suggest that it may be misleading to describe such patterns simply as adverbial polysemy, polysemy being a semantic notion, given that the difference between (3a) and (3b) lies in the scope of the adverb, i.e. in the structural attachment to S or Adj, and ultimately is an issue of information packaging.

2.3 Stance and adverbial modification of adjectives

Late Modern English and present-day English feature great productivity of adjective-modifying adverbs expressing speaker attitude. In functionalist pragmatics and in sociolinguistics, the AdjAdv construction has been the focus of a great deal of work on degree (e.g. Paradis 1997, 2008) and especially on intensification (e.g. Peters 1994, Lorenz 2002, Ito and Tagliamonte 2003, Méndez Naya 2003, 2008, Erman 2014, Rhee 2016). Such 'intensifiers' are also known as amplifiers, maximizers, boosters and emphasizees. Much of this work can be traced back to ideas presented in Bolinger (1972) on the expression of degree. According to Bollinger, "investigation will probably reveal that virtually any adverb modifying an adjective tends to have or to develop an intensifying meaning" (1972:23). Bollinger cites the example '*He was deliberately mean*' and comments:

“*deliberately* has become a virtual intensifier” (1972:22). He also writes of “less grammaticalized intensifiers” (1972:22), but insists that “the mere existence of a modifier tends to be taken in an intensive sense.” (1972:23). Guimier, likewise, claims that *-ingly* AdjAdvS tend to become intensifiers (1986:222). This suggests delexification or bleaching, such as we will see for intensifier *strangely* in the seventeenth century (and is the case for more recent intensifiers such as *really*), resulting in a vast expansion of possible contexts of use and concomitant increase in frequency.

Considerable overlap is apparent in present-day English of manner, degree and speaker evaluation. We will suggest that to characterise the AdjAdv as a 'degree modifier' fails to account for the development and use of *-ly* adverbs expressing speaker evaluation that cannot be reduced to intensification or indeed to degree. It fails to account for the difference between, on one hand, grammaticalized intensifiers, such as *really* in PDE, and on the other hand evaluative AdjAdvS whose main function is to convey speaker evaluation. The ambiguity of *John was really ill* reveals a clear split between intensifier *really* ('John was very ill') and the epistemic adverb *really* ('John was in fact ill (he was not pretending)'). The traditional analysis of this ambiguity would appeal to different scopes in the underlying structure, distinguishing intensifier AdjAdv from epistemic SAdv. But it is harder to apply a similar analysis to cases such as (4), where two pre-adjectival adverbs are coordinated, suggesting that both have scope over the adjective and that each has the same syntactic relationship to the adjective.

(4) The London streets that night .. felt **eerily** yet **thankfully** quiet (2011, *New York Times*)

Eerily quiet is a regular collocation where *eerily* can be interpreted as both intensifying ('so quiet that it was eerie', 'very quiet') and evaluative (*eerie* conveys negative affect), but *thankfully* expresses speaker affect only: the quietness of the streets brought comfort to the speaker. *Thankfully* is better known as an evaluative sentence adverb, and (4) could be glossed as a combination of 'the streets were eerily quiet' and 'thankfully, the streets were quiet'. These two ideas have been neatly compressed into one adjective phrase, using *yet* to mark the contrast between negative and positive affect. It is possible of course that *thankfully* and other evaluative adverbs will intensify as a result of their pre-adjectival position, as suggested by Bolinger. But the evidence of *strangely* below suggests not. A more likely scenario is that the 'intensifier slot' approach will prove inadequate to account for all the uses of AdjAdv.

Many AdjAdvS occur in idiomatic collocations, such as *fiendishly clever*, *grindingly poor* or

hopelessly muddled. These regular collocations seem to support the 'degree modifier' claim. But the construction is very productive, and not all the expressions that are coined can be interpreted as intensification. In fact it appears that different and uncertain relationships can hold between the adverb and the adjective it modifies. The examples in (5) illustrate the type of productivity in written English of this construction.

- (5) a. almost every bit is **ludicrously self-dramatising** (1998, *Sunday Times*)
b. this **sadly insubstantial** book (1997, *Telegraph*)
c. his **quietly unhappy** wife's obsessional vacuuming (1997, *Irish Times*)
d. Ford's Parisian and **bleakly Midwestern** settings (1997, *Sunday Times*)
e. [he] presents his .. despair .. in a fashion so charming and **gum-chewingly simple** that .. (1997, *Sunday Times*)

The *ludicrously* of (5a) can be interpreted as intensifying ('so self-dramatising that it is ludicrous / self-dramatising to a ludicrous degree'). The most plausible interpretation of (5b) is that it is sad (in the speaker's view) that the book should be [so] insubstantial. It is therefore very close to *Sadly this book is insubstantial*. It has been suggested that adverbs such as those in (5c,d) have a quasi-predicative function (Valera Hernández 2014:85) and can also be read as 'quiet and unhappy', 'bleak and Midwestern', etc. The adverb is said to be intercategoryal between adverb and adjective. But this does not account for the difference between (5c) and (5d). Example (5c) is compatible with 'quiet and unhappy', but suggests manner - that the wife was unhappy in a quiet way. It expresses neither the degree to which she was unhappy nor speaker attitude. A different relationship obtains in (5d): 'Midwestern' is not normally a gradable adjective, so *bleakly* looks like a speaker comment on the Midwest. Example (5e) illustrates how easily AdjAdvs can be coined, leaving the relationship between the coined adverb and the adjective rather uncertain. (5e) may play on the familiarity of the degree-adverb construction to suggest 'very simple'. However, the paraphrase '!so simple that it is gum-chewing' obviously does not work here, so that we must understand something like a comparison ('as simple as chewing gum').

These different and uncertain relationships between the adverb and the adjective it modifies recall Biber's findings for the noun-noun construction (e.g. *government approval*) in newspaper prose, where 'compressed noun phrase structures' carry tightly-packaged, multiple ideas. Biber notes that "premodifiers are used to compress information into relatively few words, where the alternative would normally require full clauses" (2003:174). The result is fewer finite verbs and increased

information density. Biber comments that "[t]hese increasingly compressed styles of expression are at the same time less explicit in meaning. For example, noun-noun sequences can represent a bewildering array of meaning relationships" (2003:179). The same can be said of AdjAdv+Adj sequences especially when premodifying a noun as in (5b,c,d). The structure allows the speaker to convey stance economically in a backgrounded expression, embedded in an AdjP which in turn premodifies a noun. It allows for a wide range of relationships between the meanings of the adverb and of the adjective: succinctness comes at the cost of ambiguity.

2.4 Stance and adverbial modification of sentences

Backgrounding is also apparent in the PDE use of SAdvs to carry speaker stance. These adverbs are increasingly integrated into the sentence in pre-verbal position, as in (6).

- (6)
- a. A legal paper sent to EU governments **intriguingly** provides no fixed date for Brexit [2018, *Financial Times*]
 - b. Dominic Raab .. has **unsurprisingly** told the BBC he doesn't think the deal will get through parliament. [2018, *Financial Times*]
 - c. 33 Artists Who Have **Shockingly** Never Won a GRAMMY [2016, *Fuse tv*]

The examples in (6) are from journalistic texts. Whether this will become a default construction for speaker stance remains to be seen.

In addition to the types of adverb seen so far, Late Modern English saw the rise of a group of adverbs that sprang up as vehicles of speaker stance, analogically, rather than developing slowly out of VPAdvs. These include adverbs such as *thankfully* and *hopefully* as well as a set of *-ingly* adverbs like *interestingly* or *frustratingly* (Broccias 2012). SAdvs and AdjAdvs have become productive sites for the expression of speaker stance in English.

The next section looks more closely at two evaluative adverbs, *strangely* and *luckily*. These two adverbs are chosen because they represent two different types of adverbial trajectory. Like a number of other English adverbs, the VPAdv in both cases underwent scope expansion into sentence adverbs expressing speaker stance; but while *strangely* both retained its VPAdv use and developed as a degree adverb (intensifier), *luckily* did neither. There are, however, recent examples of its use to modify adjectives.

3. Evaluative adverbs in Modern English: *strangely* and *luckily*

3.1 *Strangely*

Strangely, by the early seventeenth century, had developed a range of related senses, mostly having pejorative connotations. It had the sense of 'unusually, oddly, unaccountably' that it has retained into PDE, illustrated in (7a). Another was a pejorative use, rooted in its older meaning 'foreign, unknown', of 'badly, unfavourably'. Example (7b) comes from a debate in which there is much mention of "what will be said abroad, if ..."; the sense here is that, were 'your honour' to postpone the decision, the people would be very critical. Like PDE *badly*, it had also developed an intensifier sense, illustrated in (7c). As mentioned in section 2.4 above, many adverbs were settling into medial position from the late sixteenth century, and intensifying *strangely* is common in both positions (7c,d). By 'intensifying sense' is meant here 'to a high degree or extent; greatly'; in examples (7c,d) below, it can be glossed, as indicated, as 'greatly'.

- (7) a. Then presently began the earth to quake so **strangely** and unusually, that old houses did fall ['unaccountably'] [1577, Hellowes, tr.]
- b. It is not for your honour to part without coming to some resolution in this business. It will cause people to talk **strangely** abroad ['unfavourably'] [1656, Burton, Parliamentary diary]
- c. this sudden question puzzled him so **strangely**, that he replied, I can not tell ['greatly'] [1665, comic tale]
- d. She is grown so constantly mery, you wod scharce know her, but it **strangely** becoms her. ['greatly'] [1672, letter, Thimelby]

These senses, which developed via semantic shift, could overlap in use. It is often not feasible to distinguish the 'unaccountably' or 'unusually' senses from the 'greatly' (intensifying) sense, many occurrences being felicitously interpreted as both together. Or rather, given the wide range of contexts that can take intensification, the adverb takes on a wider, vaguer sense.

Towards the end of the seventeenth century, there appears to be a functional split emerging between an event-oriented use in final position and a speaker-oriented use in medial position. By the end of the seventeenth century, adjectival modification by *strangely* to express 'to a high degree' is common, exemplified by *strangely kynd* and *strangely absurd* in (8c,d). This degree modifier may

well have developed from occurrences of the VP-Adv in passives (8a) and in passive-resultatives, such as *be surprized, confounded, puzzled, mistaken*, etc. where the past participle becomes adjectival, as in *strangely puzzled* and *strangely ioyed* (8b,c). In these *be*-passive constructions a reanalysis from [be] [strangely] [puzzled] to [be] [strangely puzzled] is plausible, as is a reanalysis in predicative adjectival constructions from [be] [strangely] [Adj] to [be] [strangely Adj].

- (8) a. I would have the question put, that he is a notorious imposter and seducer of the people. If you consider the number of them abroad, you would apply some speedy remedy; for that they are seduced is apparent enough. I have heard of one that was **strangely** deluded by this person [1656, Parliamentary diary, Burton]
- b. how can they comprehend them? We are **strangely** puzzled in plain, ordinary, finite things [1698, sermon, Stillingfleet]
- c. How strangely kynd are youI am **strangely** ioyed in the hopes you give us [1660s, letter, Thimelby]
- d. This is **strangely** absurd, and wou'd seem monstrous even upon the Stage [1719, drama, Killigrew]

Across the various deployments of *strangely* exemplified in (8), the function of the adverb to signal 'to a high degree' is constant. Throughout the Early Modern English period, *strangely* is thus used for intensification ('much', 'very', 'to a high degree') in the VP, before a past-participle, and before an adjective.

The last configuration in which *strangely* appears as an intensifier is with an attributive adjective within a noun phrase. While occurrences with the verb *to be* such as (8c) are potentially ambiguous, those embedded in a noun phrase such as occur from the mid-nineteenth century are not: in (9), *strangely* can only be interpreted as modifying *cheering*:

- (9) I called on Milnes ... (his brother telling me **strangely** cheering news, from the grimmest of faces, about my books selling ...) [1846, letter, Browning]

To summarize the development, in the seventeenth century *strangely* evolves an intensification

sense alongside its other senses. At first, it intensifies events (7c), at a time when medial position (i.e. pre-V, post-Aux) is becoming the default position for English adverbs (7d). We hypothesize that this medial position, together with the formal parallelism of eventive passives, stative or resultative passives, and deverbal predicative adjectives, facilitated a reanalysis by analogy from [be] [Adv] [pp/Adj] to [be] [Adv pp/Adj] which then extended to non-deverbal adjectives [be] [Adv Adj]. Once the adverb is interpreted as modifying the adjective, and as forming an Adv+Adj constituent, its use can extend to a wide range of adjectives, thereby entrenching the schema, and the adverb is then easily 'carried along' when the adjective is placed in attributive position (9). This is arguably a type of reduction (*cf.* Traugott and Trousdale 2014: 261f) insofar as the adverb and adjective become more closely associated, and thereby more constituent-like resulting in some loss of compositionality. (Many Adv+Adjectival-pp sequences such as *finely-tuned* have lexicalized.)

De Smet (2012) has very similar observations on the development of *all but* and *far from* as downtoners. In his data, *all but* becomes frequent before NPs, predicative adjectives, attributive adjectives, and past participles or passive verbs in that order. De Smet convincingly suggests analogical steps based on similarity of environment:

Once acceptable with predicative adjectives, it is [a] minimal step to spread to new adjectival contexts, since *all but* now remains within the constructional template of the adjective phrase. At the same time, the use of *all but* with predicative adjectives also facilitates extension to passive verbs, since these, being formed with auxiliary *be* and a past participle of the verb, formally resemble predicative adjective constructions –and are in fact sometimes hard to distinguish from them. (2012:615).

As we have seen, comparable analogical operations are plausibly at play in the evolution of *strangely*, but in rather the reverse order: from passive constructions to predicative adjectives and thence to attributive adjectives.

By the end of the nineteenth century the intensification meaning of *strangely* is declining, and in present-day English it has become obsolete. The adverb retains only the sense of 'oddly or unusually or unexpectedly' (4a), both as VPAdv and as AdjAdv. Intensifiers are known to be subject to fashion and regularly renewed, and *strangely* was overtaken and replaced by other intensifiers such as *vastly*, *singularly* and so on.

The sentence adverbial usage of *strangely* occurs late in Modern English, towards the end of the nineteenth century, at first, like several other emergent evaluative sentence adverbs, appearing chiefly with *enough* (10).

- (10) **Strangely enough**, in all the agony of her mind she had never yet reproached her lover—
accused him as the cause of it all (1885, narrative fiction, *Blind*)

This SAdv use retains the 'unusually, oddly' sense and is analagous to the uses of *curiously enough* and *oddly enough*. *Strangely*, then, does not occur as a SAdv until intensifier *strangely* has waned. Data from BNC-2 (Love et al. 2017) suggest that the SAdv use may have become the commonest in PDE, though the figures are too small to be reliable. Four out of 54 occurrences precede an adjective or adjectival past participle, and nine are VP adverbs, while 41 are SAdv in initial and final positions, including 22 in the expression *strangely enough*. The evolution of the adjective *strange* shows a parallel development of its polysemy: the 'extreme' sense adjective dies off along with the intensifying adverb and the semantics narrows to the 'odd, unusual' sense.

Strangely does not vary semantically according to what it modifies. The degree sense ('greatly') develops in the VPAdv and is carried along when the adverb moves into new configurations. And across its different structures and positions, *strangely* loses that intensification sense over the same period, and settles around the 'odd or unexpected' sense. In (11) below, *strangely comforting* is interpreted just as *Strangely it is comforting*.

- (11) [the book is] a bleak but **strangely** comforting summary of the human condition [1997,
Sunday Times]

In present-day English there is thus a striking parallelism between the SAdv and the AdjAdv constructions. The AdjAdv construction effectively acts as a means to compress information. The ideas that the book is bleak but it is comforting and that it is strange that it should be comforting are wrapped into the premodification of the noun.

3.2 *Luckily*

Luckily, from the adjective *lucky*, has followed a very different trajectory from *strangely*. Unlike *strangely*, it is associated with positive evaluation. It is now rare as a VPAdv according to its entry in the in OED and no occurrences were found in the demographically-sampled spoken section of the BNC-World Edition or in the BNC-2014. But throughout most of the Modern English period, *luckily* is used in the senses of 'successfully' (12a) and 'fortuitously', 'by chance' (12b). Sometimes these senses merge to convey that an event chanced to be successful.

- (12) a. By water to Westminster, and there come most **luckily** to the Lords' House [1663, diary, Pepys]
 b. we had so **luckily** discovered that Passage [1619, Phillip, tr.]

From the sixteenth century it occurs especially in idiomatic expressions such as *happen luckily*, *fall luckily* or *fall out luckily* ('turn out well'), where it combines the idea that something occurred by chance with speaker evaluation that it was favourable (13a). One person's luck being sometimes another's misfortune, the luck may need to be attributed (13b), as a default reading emerges whereby the event occurs fortunately for the speaker. In (13c) *luckily* is no longer tied to the subject of *appear*; it is understood that the chance appearance was favourable for the speaker rather than for the inn-keeper.

- (13) a. For all things fell out so **luckily**, and had so good success .. [1590, Digby]
 b. It fell out **luckily** for the King's Designs, though **unluckily** for his Son-in-law's [1697, Coke]
 c. ..might have carried things to an extremity, had not the inn-keeper **luckily** appeared at that juncture [early C18th, Motteux, tr.]

The *luckily* of (13c) can therefore be read as having (semantic-pragmatic) scope over both the predicate ('appeared by chance') and the event ('fortunately for us'). This scope expansion does not initially correlate with any surface structure change. What seems to correlate with the scope expansion is the gradual reweighting of meaning whereby *luckily* becomes more subjective, losing the sense of 'successfully' while the evaluative 'favourably/fortunately' sense strengthens. There is a shift from someone chancing to achieve something successfully towards an event occurring by chance to the benefit of the speaker (14a) or (in the speaker's view) to the general benefit (14b).

- (14) a. soon after this my Uncle dies, and left me **luckily** ere my fault was known, his fortune

[1698, D'Urfey]

b. He would have proceeded to the tiring of the Company, but very **luckily** there was a Pear-pye set before him, which made Water in his Mouth, and put an end to his Discourse.
[1710-14, Ward]

Only in the early nineteenth century does initial position become regular (15).

(15) his head cut by falling ... **Luckily** a glass of vinegar well rubbed upon the wound soon set him to rights [1814, letter, Stanley]

In PDE VPAdv *luckily* has become all but obsolete and wide-scope *luckily* occurs unambiguously in final position in PDE (16).

(16) a. it was fine because I'd moved it **luckily** [BNC-1, KP5]
b. so I didn't lose my deposit **luckily** [BNC-2, SY2Z]

The expansion of VPAdv *luckily* to SAdv *luckily* is in line with many other SAdv developments of *-ly* and other adverbs in the Modern English period (Swan 1988, Killie 1998, , such as *sadly*, *surprisingly*, *curiously*, *happily*, *fortunately*, resulting in a set of speaker-oriented evaluative adverbs for the expression of attitude.

By contrast with *strangely*, *luckily* so far functions only rarely as a modifier of adjectives. Again, *luckily* with the verb *to be* followed by an adjective or an adjectival past participle may be ambiguous in scope (17a), but it can be found with attributive adjectives (17b)

(17) a. One goes on teaching on the consciously false assumption that one's job is the production of specialists: this is **luckily** false, & wd be pernicious if true [1936, letter, Berlin]
b. it also had a severe - but **luckily** short term - impact on the local economy [2010, *Forbes*]

The timing suggests that the AdjAdv usage has developed out of the sentence adverbial: possibly, like *strangely*, by the ambiguity of the post-*be/aux* position, along the lines of [*was*] [*luckily*] [*short*] > [*was*] [*luckily short*]. Again, as for *strangely*, sequences involving the verb *be* seem to be the locus of the potential change. But analogy with other AdjAdv may also have played a role. It remains to be seen whether adjective-modifying *luckily* will remain rare or expand (and/or become

an intensifier).

4. Adverbial evolution in the light of models of language change

As pointed out by Traugott and Trousdale, English "has a very rich system of adverbs" that spans the lexical and the grammatical: "manner adverbs tend to be on the contentful end of the continuum, e.g. *foolishly*, *fast*, while focus marking adverbs, e.g. *only*, *even*, and degree adverbs like *very*, *quite* are on the procedural end" (2013:73). We have seen that particular adverb forms can function at both the lexical and grammatical ends, illustrating the gradience of this category. Adverbs can therefore be interesting case studies for diachronic shift along the continuum between lexical and grammatical.

The examples of *strangely* and *luckily* show, first, that there is no single type of pathway for VPAdv of circumstance to develop into other types of adverb. Each has its own history. While *strangely* evolves into parallel VPAdv, SAdv and AdjAdv, *luckily* loses its earlier use when it develops into an evaluative sentence adverb.

Yet they also have developments in common, in particular the emergence of the SAdv out of the older VPAdv. This type of sentence adverb development involves scope increase, semantic shift towards speaker stance and changes of position. It involves increase in the range of pragmatic contexts in which it can be used. The cases of *luckily* and *strangely* also exemplify the productivity of the evaluative AdjAdv construction and its extension to types that cannot be subsumed under a 'degree adverb' analysis. *Luckily*, following more than a century restricted to an evaluative SAdv, may see its AdjAdv use conventionalize (17). *Strangely* ceased to function as an intensifier when the lexeme lost its 'greatly, to a high degree' sense, while continuing to combine with adjectives in the AdjP in its older sense of 'oddly' (2b).

These changes can be viewed in the light of at least three different models of internal language change: grammaticalization theory, diachronic construction grammar and thetical grammar. They can also be viewed in terms of external change, as a response to socioeconomic change.

The emergence from a VPAdv of a SAdv has been treated as an increase in grammaticalization under an 'expansion' view of grammaticalization (Traugott 2010). According to the expansion view, items that show semantic and syntactic scope increase (i.e. move to a 'higher' position), desemanticization and decategorialization thereby move towards the grammatical pole, on the

assumption of a lexical-grammatical cline.

Both *strangely* and *luckily* can be said to grammaticalize in this sense, with parallel semantic and syntactic changes: semantically they subjectivize to express speaker stance; syntactically they undergo scope expansion to modify a clause or sentence. *Luckily* and *strangely* may thus be described as following a well-trodden grammaticalization path from event-oriented VPAdv to speaker-oriented SAdv.

Strangely, in addition, appears to be a classic case of grammaticalization from lexical adverb to degree modifier (intensifier). As Méndez Naya points out, intensifiers "can be said to undergo a process of grammaticalization, since they are lexical items which ... develop a more grammatical function, with a concomitant restriction in syntactic scope and generalization of meaning" (2003:372). As an intensifier, it enters into a relatively closed paradigm of intensifiers.

Whether either or both of these changes (VPAdv > SAdv and VPAdv > intensifier) is appropriately described as 'grammaticalization' has become largely an issue of terminology and definition rather than an empirical question, because the term has tended to be reified. An illustration of this reification is Coussé et al.'s claim that "Grammaticalization *is known to be accompanied by both formal and semantic changes, as is witnessed by* Lehmann's (1982) well-known criteria for grammaticalization" (2018:4, emphasis added). But as Fischer reminds us, grammaticalization is a model, "an analyst's generalization, a convenient summary" (2011: 42). The research question is how to make the best possible generalizations over the data, at the appropriate levels, and as more data becomes available to refine the model.

In the grammaticalization literature, a split has developed between 'broad' and 'narrow' definitions, between those who wish to widen the definition and those who prefer to freeze it. Traugott (2010) discusses these 'extended' vs 'traditional' views of grammaticalization. Either view of the grammaticalization model is useful, because it helps us to identify interesting features of the adverbial developments and enables us to compare them to other similar developments. We can benefit from "the fundamental hypothesis that there is a subset of grammatical changes which shares a number of interesting properties, in particular the property of following a directional path of development" (Himmelmann 2004:39n).

The grammaticalization model depends crucially of course on what 'grammar' is and what becoming

'more grammatical' involves. A recent approach to grammaticalization that may usefully be applied to English adverbial change is that of Boye and Harder (2012), who define it "in terms of the ancillary status that grammatical expressions by linguistic convention have in relation to other expressions" (2012:6). This relative view of grammaticality hinges on information structure, on the notion of discourse prominence: grammatical elements are those that are discursively secondary or background elements (2012:7). To be discursively secondary is "to have lower prominence than one or more syntagmatically related expressions in the utterance" (2012:8) and to be 'non-addressable'. Prominence properties are said to be conventionally associated with particular items; that is, they are 'tagged' so to speak for discursively primary (more lexical) or discursively secondary (more grammatical) use.

Evaluative sentence adverbs such as *strangely* and *luckily* cannot be focused or addressed. Other than as isolates, they cannot be used to express the 'main point' of an utterance. Huddleston and Pullum make a very similar observation about 'evaluative adjuncts': the feature in the evaluative adverb "is backgrounded relative to the residue. ... it is the residue that constitutes the main new information" (2002:772). The information in the adverb (e.g. the information. that for the speaker a state of affairs *is strange* or *is lucky*) is backgrounded relative to the other information in the utterance. Quirk et al. note that "It is a matter of interesting speculation to account for the process by which we can express the meaning of these finite verb phrases in terms of verbless adverbials" (1985:614n). In Boye and Harder's model, and by their focusability and addressability tests, these adverbs are ancillary and discursively secondary *by convention*, and they are grammatical (2012:19). Their grammaticalization out of the VPAdvS can be seen as involving 'ancillarization' (2012:22). The result of ancillarization is that the meanings conveyed by the adverbs are backgrounded with respect to other elements of the utterance. Thus the "tendency to adverbialize speaker comments" identified by Swan and mentioned in the Introduction means backgrounding and grammaticalizing speaker stance, allowing for denser information packaging. One word, attached in a modifier-modified relation to a proposition or to a predicate or adjective, suffices to convey the speaker's stance towards the state of affairs. This is the increased information compression achieved by the use of the AdjAdv that was mentioned in section 3.1 in relation to example (12).

This model potentially links up with the view that socioeconomic change may be instrumental in the shift to greater informational density. Socioeconomic factors have been suggested as a motivation for other changes in the English noun phrase that are comparable to the prenominal

AdjAdv+Adj. Hinrichs and Szmrecsanyi (2007) observe an increase over time (1960s-1990s) in the use of the more 'economical' pre-noun 's' possessive vs. the post-noun 'of' possessive in journalistic language, correlating with increased lexical density (measured by type-token ratio). They suggest that the increase is "best explained as 'economization', i.e. as a response to the growing demands of economy ... in times of growing textual and informational density" (2007:469). They echo Biber's hypothesis that an 'informational explosion' over the past century has resulted in "pressure to communicate information as efficiently and economically as possible" (2003:180). Biber and Clark (2002) document the increase in the premodification of nouns, and Rosenbach (2010) in her study of the increase of identifying noun premodifiers notes the "general tendency in English for prenominal modifiers/variants to become more frequent" (2010:169). The fact that it is in written registers that premodification is most prevalent in PDE (Biber and Clark 2002:45) suggests that it has been more of a (semi-)conscious external change than an internal change. Nevertheless, Boye and Harder's approach would help explain a drift towards greater compression and economy of expression for speaker stance, resulting in a more 'grammaticalized' form for these meanings.

Another contribution to grammaticalization theory is fractal grammar, which may be relevant to the issue of how to model the different uses that result from successive shifts. *Strangely* and *luckily* are typical of a number of evaluative adverbs that have grammaticalized from manner adverbs and can operate both extracausally and intracausally, but the traditional division into VPAdv, AdjAdv and SAdv does not adequately reflect the range of configurations and positions that a particular adverb can adopt. And a traditional polysemy analysis that is based on this division does not adequately reflect the range of usage of the adverb. To account for the differences among the examples in (18), the traditional categorization of English adverbs according to which of three syntactic categories they modify seems inadequate.

- (18)
- a. they can see people who are acting **strangely** [2000s, BNC2-SH2A]
 - b. **Strangely**, the inspiration behind the idea ... seems to have come about largely by accident [1997, *Sunday Times*]
 - c. I had more disposable income **strangely** [2000s, BNC-2, SW6A]
 - d. I don't mind doing it I enjoy it like I actually **strangely** enjoy it [2000s, BNC-2, SKGU]
 - e. it's **strangely** therapeutic .. getting on top of the washing [2000s, BNC-2, S43S]
 - f. an uncouth but **strangely** compelling story of bungled espionage [1997, *Telegraph*]

The uses in (18) are traditionally categorized as event-oriented VPAdv (18a), speaker-oriented SAdv (18b,c,d) and adjective modifier (18e,f), based largely on their relationship to the clause (inside the clause, outside the clause or inside a clausal constituent). Yet each of the uses expresses a different speaker choice, and each arguably has a different relationship to its host and a different informational status in the overall utterance. Only (18a) is truly lexical (addressable and focusable in Boye and Harder's terms). For instance, although *strangely* in both (18b) and (18c) is traditionally seen as a sentence adverb, the first is in left-peripheral, parenthetical position, while the second is final. The recent development of this final position suggests a different structural relationship to the host unit and different, reduced relative discourse salience.

'Fractal grammar' (Robert 2003, 2004) is designed to account for the type of polysemy that often results from polygrammaticalization. This approach posits an abstract cognitive semantic schema that lies behind a grammaticalized form and which allows the form to grammaticalize into new uses by replicating the abstract schema at a different level. "Morphemes are said to be fractal because of their ability to be used synchronically in different syntactic categories with increasing (or decreasing) syntactic scope" (Robert 2004:124). A semantic continuity runs throughout the schematic form, so that the abstract semantic schema is what allows a language in its diachronic development to 'crystallize' certain uses in particular syntactic contexts (2004:139). Such an approach might allow for the closeness of the speaker-oriented uses (e.g. those in (18a,b,d,e,f) to be modeled as sharing a semantic sub-schema that differs from that of the event-oriented use, while both inherit from the abstract, underlying schema. This also avoids the positing of a synchronic 'core' or 'basic' sense for the polysemous item. Such an approach is compatible with the second model of language change to be considered: diachronic construction grammar.

While the focus of grammaticalization theory is on one area of language change - where grammatical items (grams) come from and how they develop-, diachronic construction grammar (DCxG) is a holistic approach that addresses how the constructions (words and structures as form-meaning pairs) that constitute a language variety arise and change. Where grammaticalization theory is concerned only with the grammatical, DCxG deals equally with the lexical and the grammatical and assumes these are on a cline of grammaticality. DCxG therefore has the potential to model any instance of language change. A major advantage of DCxG is that it does not require that the sentence or clause complex be the upper limit of syntactic dependency. So long as a construction (a conventional -or very frequent- form-meaning pair) can be identified, there is no need to posit qualitatively different constructions 'beyond the sentence'. The SAdv+Sentence

combination can be treated as a schematic construction with an (albeit abstract) conventional meaning. So, by contrast with a grammaticalization view, which focuses on a change to the VPAdv form (in its context of use), DCxG might model the change VPAdv > SAdv as so many micro changes in the SAdv+S construction, with increased productivity and therefore greater schematicity as a wider range of items enters the adverb slot. Each new adverb conventionalized as a SAdv results in a new SAdv+S micro-construction. These changes exemplify "the step-wise realignment of parts of constructions with others in the network" (Trousdale 2014:571-2).

Recalling the discussion above of fractal grammar, we might go further and posit a more abstract adverbial 'modification' schema 'modifying-Adv+modified'. As seen above, in grammaticalization theory position (movement leftwards, to a 'higher' position with 'wider' scope, etc.) tends to refer to position in relation to the clause. But it is possible that, cognitively, position in relation to the host is at least as salient, so that a parallelism is perceived: SAdv is to S as AdjAdv is to Adj. This might facilitate analogy-driven extension (in either direction) resulting in increased productivity. It would help to account for the apparent mismatch in example (4), though not the recent occurrence of final SAdvS as in (16) and (18c). Such a model involves what Traugott and Trousdale refer to as 'constructional change' (2013:26), change in either the form or the meaning of a form-meaning pair. The increased productivity is at the expense of more verb-based expression of stance, and is therefore arguably also a form of grammaticalization of speaker stance.

A further advantage of DCxG is its equal focus on form and meaning, so that it provides a model at the same time for the change in the semantics (but not the form) of the lexical adverbs; for example, in the case of *luckily* the subjectification from 'successfully' to 'fortunately for the speaker'. Many issues remain, however, such as the degrees of conventionality of particular constructions.

The question also arises how to view the loss of the intensification function of *strangely*. Grammaticalization is usually understood as a process undergone by a form. From the point of view of the history of the form, *strangely* can be said to first become more grammatical and then less grammatical as it undergoes context reduction and narrowing of meaning to 'oddly', although no scope changes are involved. On a construction view, however, the change is not reversal or desubjectification, but obsolescence of 'micro-constructions' (Traugott and Trousdale 2013:16). The intensifying sense is lost, for the AdjAdv and the VPAdv simultaneously (along with the 'unfavourably' sense (4b)), as these functions get taken over by other forms. Questions remain about the nature of the links between constructions (cf. Hilpert 2018) and about how to model this type of

semantic obsolescence.

A third model of language change that might account for the development of English sentence adverbs is thetical grammar. It is often claimed that disjunct sentence adverbs are 'syntactically detached' or 'outside the syntax' and it is in this perspective that thetical grammar (Kaltenböck et al. 2011, Heine et al 2013, Heine et al. 2017) offers a possible model for the analysis of evaluative sentence adverbs. A thetical is characterized by a mixture of structural, prosodic and semantic properties. It is an information unit that is syntactically independent and tends to be positionally mobile. It is set off prosodically from the rest of an utterance. These three properties provide the most useful diagnostics (Kaltenböck et al. 2011:853-4). Internally, a thetical has non-restrictive meaning; it is structured on sentence-grammar principles but can be elliptic (Kaltenböck et al. 2011:853). Whether an element is thetical or not therefore seems to depend largely on the extent to which the element can be accommodated in a sentence-based syntactic analysis. It thus addresses the problem in formal grammar of how to deal with elements that do not fit the sentence-based syntactic model (cf. Espinal 1991). The thetical grammar approach appears ideally suited to parentheticals of all types (v. typology outlined in Heine et al (2013), from one-offs to more conventional items. What about the type of evaluative sentence adverb at issue here? Evaluative sentence adverbs can be considered thetical by virtue of their being sentence adverbs, i.e. 'above' sentence level. Speaker attitude expressed 'below' sentence level can be considered part of sentence grammar. In fact Kaltenböck et al. consider sentential adverbs "to be paradigm instances of theticals" (2011:865), although "some theticals may share properties with ... adjuncts" (Kaltenböck and Heine 2014: 352).

Evaluative **strangely** and **luckily** may be said in thetical grammar terms to have undergone cooptation, when they were first used with wide scope. Cooptation is an instantaneous operation whereby some element (in this case a VPAdv) is lifted out of sentence grammar and redeployed outside the sentence, in discourse grammar (in this case as a SAdv), mainly for purposes of text organization, the expression of speaker attitude or speaker-hearer interaction. Once such a use becomes a recurrent pattern, rather than a one-off, and is associated with a particular discourse function, the adverb would be a 'formulaic thetical' (Kaltenböck et al. 2011:871, Heine et al. 2017:819). Theticals that have been coopted out of sentence grammar may later grammaticalize and get incorporated back into sentence grammar (Heine 2013). The emergence of the SAdv, often described as reanalysis to wide scope in grammaticalization terms, can equally well be described as cooptation in thetical grammar terms. It is not clear whether cooptation involves the same cognitive

mechanisms of pragmatic over-interpretation through inferential reasoning that is posited in the grammaticalization framework. Cooptation seems less relevant to cases of AdjAdv *strangely* and *luckily*. However, adverbs such as *thankfully* in 'the *thankfully* quiet streets' (2) or '*strangely*' in 'he was *strangely* inarticulate' (5b) might be considered (atypical) constituent-anchored theticals on the grounds that their meaning is non-restrictive and they relate to speaker attitude.

This approach is partially compatible with the Construction Grammar approach insofar as constructional theticals, and perhaps formulaic theticals, are said to constitute constructions in the sense of CxG (Heine et al 2017:820). However, the positing of a rather strict boundary between sentence grammar and discourse grammar seems incompatible with construction grammar, which privileges form-meaning pairing above all, and which does not attribute a special status to the sentence. Overall, it seems difficult, and unnecessary, to empirically establish a boundary line between 'sentence grammar' and 'discourse grammar'. This difficulty seems to be recognized in thetical grammar insofar as 'thetical' is described as a prototype category whereby an element may be more or less thetical (Kaltenböck et al 2011:853, Kaltenböck and Heine 2014:352). This suggests that there may be no ontological difference between the two types of grammar; it leaves open the possibility of a gradient between sentence grammar and discourse grammar. Yet this possibility seems to be precluded: Kaltenböck et al. adhere strictly to a sentence-based grammar of verbs, arguments and adjuncts (2011:873). Moreover, they emphasize the different natures of the two types of grammar, which are said to be two different 'domains' of linguistic behaviour, which interact but which are "built on different principles" (2011:877), suggesting an ontological difference after all. Yet a gradient model would cater for items such as certain English sentence adverbs which have more or fewer thetical features depending on their position, their meaning and their history. It might also allow for 'cross-grammar' constructions containing both sentence-grammar elements and discourse-grammar elements (theticals).

6. Conclusion

The inventory of adverbs in English has greatly expanded over the Modern English period, and the adverb has become a favoured site for the expression of speaker stance. This has been achieved largely through the extension of existing adverbs, but more recently through the coining of new ones by analogy. This adverbial development has resulted in greater information compression and in the backgrounding of stance - speaker viewpoint expressed adverbially in the constructions discussed is presented as given or presupposed.

It has been seen that English adverbs such as *strangely* and *luckily* follow different trajectories that are not predictable. SAdvS and AdjAdvS can develop (if they develop) in parallel and without semantic divergence, as is the case for *strangely*, differing mainly in informational salience. The notion that adverbs modifying gradable adjectives naturally develop into degree modifiers can be questioned. Moreover, the SAdv and AdjAdv categories seem to be inadequate to model the full range of adverbial expression of stance in present-day English. A finer-grained analysis of stance adverbials in English is needed, that takes better account of the many-to-many relations between sense and structure. So far, the most promising framework for such an analysis was argued to be diachronic construction grammar.

The compression of speaker attitude into adverbs allows the speaker to embed evaluation in adverbial constructions that background it and at the same time lead to increased ambiguity or vagueness. The great productivity of English adverbs over the Modern English period has produced a richly diverse inventory and some complex polysemy patterns. Such intense adverbial development may now result in some reorganization of the adverb system of English, if adverbs become an increasingly favoured site for the expression of speaker stance and become increasingly structurally embedded and informationally backgrounded or 'ancillary'.

Appendix: Data sources

Many of the historical examples are drawn from: EEBO (*Early English Books Online Text Creation Partnership*. 2015. Oxford and Ann Arbor. Available via CQP-Web, Lancaster University. <https://cqpweb.lancs.ac.uk/>); *A Corpus of English Dialogues 1560-1760* (Merja Kytö (Uppsala University) and Jonathan Culpeper (Lancaster University), 2006); *A Corpus of Early English Correspondence* (CEEC) (Terttu Nevalainen et al., University of Helsinki., 1998); *A Corpus of Late Modern English Texts (CLMET3.0)* (Hendrik de Smet, KU Leuven, 2006); *The Newdigate Newsletters* (transcribed and edited in 1994 by Philip Hines, Jr. Distributed by the International Computer Archive of Modern English (ICAME), <http://icame.uib.no>).

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