Semantic Reanalysis and Language Change

1. Meaning Change and Grammaticalization

Many people enjoy the fascinating task to trace the history of words and expressions. Meaning changes often allow insights in cultural history, and major processes of change can be observed both in history and in daily life. For instance, speakers can decide to restrict the use of a word to what was formerly just the most frequent referents, like in Old English *mete* (‘food’) which turned into modern *meat* (food like in ‘steak’). This is called *semantic narrowing*, and we will use the example to introduce a few convenient notations.

I will use $[\alpha]$ to refer to the meaning of a word $\alpha$, e.g. $[\text{dog}]$ stands for the meaning of the word *dog*. If the meaning of a word changes, we will use indices to indicate the two different meanings. Our instance of narrowing looks as follows: $[\text{mete}]_{\text{old}}$ was the concept ‘food’ or ‘meal’ in general, whereas $[\text{mete}]_{\text{new}}$ is the narrower concept ‘meat, edible muscle matter of animals’. If we consider more than one shift in meaning, we will use numbers as indices. For instance, we will later discuss three subsequent meanings of German *fast*, notated as $[\text{fast}]_1$, $[\text{fast}]_2$ and $[\text{fast}]_3$. Other wellknown meaning changes include generalization, like for instance when $[\text{dog}]_{\text{old}}$ = ‘special breed of dogs’ was extended to $[\text{dog}]_{\text{new}}$ = ‘species canis’. Furthermore, we know metaphoric extensions, like $[\text{mouse}]_{\text{old}}$ = ‘small rodent’ to $[\text{mouse}]_{\text{new}}$ = ‘computer control’, and also metonymic extensions, for instance when $[\text{press}]_{\text{old}}$ = ‘machine for printing’ generates the newer sense $[\text{press}]_{\text{new}}$ = ‘newspapers’.

Other cases of language change are fascinating in other ways. When content words turn into grammatical words or morphemes, it is much less clear how speakers arrive at meanings as abstract as those of tense morphemes, auxiliaries, evidential markers or quantifiers. What exactly happens when a phrase *he is at hunting* changes its message from $[\text{Tom is at hunting}]_{\text{old}}$ = ‘Tom takes part in a hunting event’ to $[\text{Tom is a-hunting}]_{\text{new}}$ = ‘at the time of reference, Tom hunts’? How does the overall shift in the message project back to the parts, in particular to the interaction of *be* and –*ing*, to yield a progressive aspect marker? Changes like this have been studied as *grammaticalization* of words or complex expressions (Hopper + Traugott, 2003). The ensuing changes in morphosyntax are usually clear and well-understood. What happens at the semantic side, however, often can not be classed easily under the four types above. Another fascinating puzzle is posed by isolated language changes which fit neither of the common types. For instance, how did it happen that *premis(s)es*, known to the logician as ‘the assumptions in a deductive argument’, in English also means ‘house, estate’? The two concepts are not related metaphorically or metonymically, and the two senses don’t generalize or narrow down each other, either. The present article will introduce *semantic reanalysis* as a mechanism of language change which can help to model and understand semantic changes like these.

Revisiting many examples of grammaticalization, scholars discovered so-called *clines* or pathways of grammaticalization. These are ordered series of denotations $\alpha_1, \ldots, \alpha_n$ such that several word forms $w, w', w''$ have been found which exhibit these meanings one after another: At some time $t$, $[w]_{\text{old}} = \alpha_i$ and at a later stage $t'$, there is
a use $[w]_{\text{new}} = \alpha_{i+1}$ in addition to $[w]_{\text{old}}$. The older use may get lost over time, but often also persists. Some words can travel the full series $\alpha_1$ to $\alpha_n$ but others might only cover a subseries. What is important is that clines are almost always passed unidirectionally, which means that there is no known word $v$ that showed up with $[v]_{\text{old}} = \alpha_i$ before it developed $[v]_{\text{new}} = \alpha_i$. Clines are viewed as typological universals, which means that there could be, and often actually are, words from more than one language that developed meanings along the cline.\(^1\)

Collections of clines (like Heine + Kuteva, 2002) help to catalogue regularities in grammaticalization even though they do not by themselves offer an explanation why the respective semantic positions show up in a specific order. Clines can also illustrate in what sense grammaticalization is a non-volitional type of language change. If some language, say, English, contains a word $w''$ in a sense $[w''] = \alpha_i$ on a known cline, this does not mean that English speakers can volitionally start to use $w''$ in the next sense $[w'''] = \alpha_{i+1}$. For instance, English possesses the verb become. This verb shares its meaning with Old German werden which developed a use as a future modal. So, English become and G werden share a position on a cline. Nevertheless, English speakers could never use a sentence Italy becomes (to) win in the same futurate sense as its German word-by-word translation Italien wird gewinnen. Data suggest that semantic changes on clines often rest on a typical kind of sentence context in which the crucial word was used. German future werden, for instance, most likely developed in sentence contexts like ‘He became (a) killed (man)’, under the new interpretation that the participle (‘killed’) is no longer interpreted as part of an object NP but as part of a verbal complex with futurate meaning (Behaghel, 1924). While the syntactic reorganizations are usually quite clear, the semantic shifts eluded analysis for more than 100 years. Only since the advent of detailed compositional semantic analyses (prominently in the framework of truth conditional semantics) was it possible to trace and spell out the semantic reorganization of constructions (Eckardt, 2003, 2006). I will first offer an abstract definition of the process and we will then turn to examples.

2. Semantic reanalysis

We follow Frege’s classical assumption that language is compositional: The meaning of larger phrases and sentences is composed systematically from the meaning of its syntactic constituents. If a sentence $S$ is hence built up from parts $\omega_1$, $\omega_2$, …, $\omega_k$, then its meaning $[S]$ is construed by combining the meanings of these parts in the intended order: $[S] = [\omega_1 \oplus \ldots \oplus \omega_k]$. Here, $\oplus$ stands for semantic composition in general. If you are acquainted with truth conditional semantics, you can mostly read $\oplus$ as ‘functional composition’. The parts $\omega_j$ comprise all meaningful parts of $S$, be it words, morphemes, or sometimes also tacit semantic operators. For instance, the sentence John ate the beans has the parts John, eat, PAST, the and beans. Syntax will drive the order of combination, hence the is the determiner to beans, the beans is the object of eat and John its subject, etc. Assume now that $S$ is understood in a new sense $[S]_{\text{new}}$. Assume that the parts of $S$ are still $\omega_1$ to $\omega_k$. This forces the hearer to

\(^1\) To be precise, I should mention that the positions on clines can often also include a syntactic characterization of the respective word(s). Being mostly concerned with meaning change here, I left these out. On the other hand, each semantic position on a cline is usually loosely taken and might cover more than one denotation in e.g. the strict sense of truth conditional semantics. Otherwise, chances are dim that any cline could actually be travelled more than once.
assume that at least one of these parts $\omega_j$ must also have a new meaning $[\omega_j]_{\text{new}}$ or else, semantic composition would crash. At this point, $\omega_j$ changes its meaning due to semantic reanalysis. Generally, semantic reanalysis follows the maxime “guess meaning by subtraction”. The overall message $[S]$ is known. The meanings of almost all parts of $S$, $\omega_1, \ldots, \omega_k$ except one $\omega_j$ are also known, and the hearer also has an idea about the syntactic structure of $S$, which determines the order of semantic composition. The hearer must answer the following question:

$\text{(*) } [S] = [\omega_1] \oplus \ldots \oplus [\omega_{j-1}] \oplus <X> \oplus [\omega_{j+1}] \ldots \oplus [\omega_k]$  

What semantic value $<X>$ will make this equation work?

Whenever a word, morpheme or construction $\omega_j$ adopts a new meaning $[\omega_j]_{\text{new}}$ in answer to a question like (*), I’ll say that $\omega_j$ adopts a new meaning due to semantic reanalysis. Note that this definition is intended in a wide sense. The question (*) can arise because the hearer understands a new message for $S$, or because he interprets on basis of a new syntactic structure, or reassignment of pragmatic values. Let us see some examples.

In the simplest case, an old message is restructured in a new way. The NP *the premises* as a way to refer to houses and buildings arose in this manner. According to the OED, the noun *premise* originally was anaphoric: “The matters or things stated or mentioned previously; the aforesaid, the aforementioned, the foregoing. Often (...) in legal phraseology.” (OED, *premise 2.a*). In stereotype advertising contexts, this anaphoric element was used to refer to houses: „In pl. The subject of a conveyance or bequest, as specified in the opening part of a deed and referred to later in the document; the houses, lands, or tenements previously specified in a deed or conveyance.

(1) *All which maners, londs, and tenements, and other the premisses, we late purchased.“* (1508 in Nichols Royal Wills 379, OED *3.a*)

In semantic reanalysis, the anaphoric status of the NP was given up in favor of a context-independent definite expression for larger units of housing (OED, *premise 3.b*). Reanalysis happened on basis of examples like (1508): … *we purchased the premiss(es)*, and the minimal new assumption of the hearer was that *premise* was an ordinary noun, rather than a high register anaphoric element.

$[\text{the premisses}]_{\text{old}} = \text{anaphoric element, instantiated in context by „the estate“}$

$[\text{the premisses}]_{\text{new}} = \text{definite NP, denoting a given estate}$

In other cases, morphemes can get grouped in new ways in morphosyntax. The German preposition *während* (‘during’) goes back to a present participle of the verb *wählen* (‘last’, ‘continue’) in constructions where it shows agreement with a masculine genitive noun: *währendes Participle KriegesGEN > währendpreposition des det KriegesGEN* (‘lasting war’ > ‘during the war’). Again, the overall meaning of the new-born PP was clear, leading the hearer to assign a new prepositional meaning (= ‘during’) to the new-born word *während*.

$[\text{während } [\text{ des Krieges }]] = <X> \oplus ( [\text{ des }] \oplus [\text{ Krieges }])$
In grammaticalization, hearers typically understand a new sentence meaning that differs from the original \[ S \] in subtle ways which force semantic reanalysis. When hearers took sentences like \[ She is going to be married \] as a report about future events, rather than about present movements, this forced them to also assume that going (to) contributed to the sentence meaning in a new way (Hopper + Traugott, 2003; Eckardt 2006, ch.4).

\[
\begin{align*}
[She is going to be married]_{\text{new}} &= [\text{She}] \odot [\text{be}] \odot \text{PRESENT} \odot (\langle X \rangle \odot [to be married]) \\
\langle X \rangle &= [\text{going}]_{\text{new}}
\end{align*}
\]

In this case, it was most likely the meaning shift that forced a reorganization in syntax from biclausal \( \text{going} + [\text{to do z}]_{\text{inf}} \) to the monoclausal \( \text{going-to do z} \) construction. The emergence of prepositional \( \text{während} \), in contrast, arguably was caused when hearers replaced a pretty baroque, archaic pattern in German, “free genitive circumstantial modifier”, by the more common PP pattern. Here, syntactic analogy was a driving factor. The \textit{premise} case, finally, caused no syntactic change at all. Our range of examples shows that semantic reanalysis is an autonomous mode of change. It can cause, or be caused by, changes in morphosyntax, and sometimes happens all on its own.

The picture that I have drawn of semantic reanalysis so far makes it very clear that this type of change necessarily takes place in a sentential context. Scholars have always been curious about what kind of context is endangered by semantic reanalysis. Heine (2002:86) refers to such contexts as \textit{bridging context} and likewise, Diewald (2002) calls them \textit{critical contexts}. For the working historical linguist, an utterance \( S \) looks \textit{critical} for word \( \omega_j \) primarily if \( S \), in the given text passage, makes sense both on basis of \[ \omega_j \]_{\text{old}} and \[ \omega_j \]_{\text{new}}. (Quotes which only make sense on basis of \[ \omega_j \]_{\text{new}} are nice, because they prove that the change has taken place, but they can not themselves be the locus of change). However, the fact that a sentence could be ambiguous does not necessarily mean that it \textit{was} ambiguous for contemporary speakers. So the question remains what causes a hearer / reader to assume that the speaker didn’t intend to use \( S \) in the conservative sense but in a new one? Eckardt (2006, 2009) suggests that sentences \( S \), intended in conservative language use, can carry a pragmatic overload. To put it simply, \( S \) in the conservative sense and structure would be so hard to interpret and make sense of that the hearer feels justified to believe that the speaker meant to use \( S \) in some new sense. Such uses of \( S \) are called \textit{precarious uses} in Eckardt (2009), and we will see examples later in the article. “\textit{Precarious}” means that the utterance was not really wrong, but it was risky way for the speaker to convey her message.\(^2\) Pragmatic enrichment has been suggested as another process that leads from old literal to new literal content (Traugott 1988, Traugott and Dasher 2002). In summary, semantic reanalysis offers a viable explanation for semantic change in sentential contexts, rare directions of change and infrequent or singular patterns. It typically can’t be actively reinforced, and in this differs from metaphor or metonymy. Scholars and case studies suggest that semantic reanalysis can

\(^2\) Readers of Diewald (2002) will acknowledge that \textit{precarious} contexts don’t coincide with her \textit{atypical contexts} either because these are characterized by (normal) pragmatic implicatures, not by pragmatic overload or markedness. More discussion see Eckardt 2006, ch. 2.
• be triggered as a by-product of structural reanalysis which, in turn, may independently motivated (e.g. less complexity, Lightfoot 1991, modifier-head reanalysis, van Gelderen 2008)
• be spurred by analogy (Fischer 2007)
• be triggered by the urge to avoid pragmatic overload (Eckardt 2009)
• be triggered by the urge to conventionalize pragmatic enrichment (Traugott and Dasher 2002).

In the next section, we will look into one case study in more detail.

3. ‘almost’ by reanalysis

Words with the denotation ‘almost’ are often derived metaphorically from words that express spacial closeness (G bei-nahe, E nearly, F prèsque). However, other sources have been pointed out, including changes ‘badly’ > ‘almost’ (Amaral, 2006), and ‘similarity’ > ‘almost’ (Kytö + Romaine, 2005). I will use two German examples here, schier and fast, to illustrate semantic reanalysis, specifically the non-productive character of reanalysis, the context-dependency of reanalysis, and the pattern of precarious uses that antedate and accompany the time of reanalysis.

In Southern German varieties, the adverb schier can be used to express ‘almost’:

(2) Der ist schier gestorben vor Angst
‘He almost died for fear’

The word can be traced back to a temporal adverb schier that meant ‘soon’. Probably contexts of change are temporal constructions where at a given reference time, some future state of affairs “will soon be reached” = “has almost been reached”.

(3) da nam Thobias von der gallen des visches, er salbet die
there took Tobias of the gall of-the fish he anointed the
augen seines vaters,
eyes of-his father
und er geduldet es schier ein halbe stund.
and he bore it soon a half hour
Bible of 1483, (Tobias 11, 13)

Interestingly, Luther’s bible (1534) uses fast in the same passage. The DW hypothesizes that the new sense schier\new arises from uses like the following.

(4) Als wir schier an 3 Stunden getaget hatten...
when we soon by 3 hours conferenced had

Let us see how two different syntactic-semantic analyses of (4) can be given on basis of the word’s older and newer sense. Both propositions state that at the reference time, a conference of nearly 3 hours length had taken place.

[[ S ]]\text{old} = [ als schier [ wir hatten an 3 Stunden getaget ] ]
In the semantic composition, the word *schier* relates a proposition *p* to a time *t*. SOON(*t, p*) is true iff *p* is false at *t* but becomes true at some time soon after *t*. In the given example

\[
[[S]]_{\text{old}} = \text{SOON}(R, p)
\]

where *R* is the reference time, *p* is the proposition ‘we met for 3 hours’.

However, a different way of making the same point is this: “when we had met for nearly 3 hours”. And maybe, this is even a more down-to-earth way of talking, compared to statements about propositions that would soon be true. Understood in this sense, the hearer faces the following semantic composition:

\[
(#) [[S]]_{\text{new}} = p \text{ is true at } R
\]

where *R* is the reference time, *p* is the proposition ‘we met for almost 3 hours’.

She would hypothesize the following compositional structure:

\[
[\text{als [wir hatten [schier an 3 Stunden] getaget]}]
\]

and find that [[S]]_{\text{new}} can indeed be composed from the old parts [[als]]_{\text{old}}, [[wir]]_{\text{old}} etc. apart from one step: There is a superfluous word *schier*, and a necessary semantic operator <X> = ALMOST that is needed to reach (#). I assume a polymorphic analysis of ‘almost’ which can combine with arguments of different logical types (Penka 2006, Eckardt 2007). The most natural idea for the hearer will be to assume that [[schier]]_{\text{new}} = ALMOST. I’d like to stress that the two denotations [[schier]]_{\text{old}} and [[schier]]_{\text{new}} are truly distinct, as you can easily test by comparing e.g. English *soon* and *almost*, or German *bald* and *schier*.

Let us now turn to another case, the development of Modern German *fast* ‘almost’. Like its English cognate *fast* (‘quick’), it derives from an older adjective/adverb *fast* with the sense ‘solid, fixed, firm’. The oldest quotes show *vast/fast* to express physical firmness but the word was metaphorically extended to psychological determination, firm pursuit of a task. From there, it was generalized to intenseness, and high degree. Around 1400, uses of *fast* often translate to English *very much*, *determinedly*, *energetically*. In ModHG, *fast* has completely lost this sense. The variant *fest* is used to express physical firmness.

\[
[[\text{fast}}]_1 = \text{‘physically firm, fixed’ (ModHG fest)}
\]
\[
[[\text{fast}}]_2 = \text{‘very much, intense’ (obs.)}
\]
\[
[[\text{fast}}]_3 = \text{‘almost’}
\]

Older and newer denotations are almost contradictory. If a thing is ‘firmly attached to something’, it is simply not ‘almost attached’, and likewise if a person does something ‘intensely’, that person simply doesn’t do the thing just ‘almost’. Philologists occasionally take such examples as evidence for a general weak-mindedness of ordinary speakers, but I do not think that this diagnosis does justice to the human language capacity. I want to argue that the modern meaning [[fast]]_{\text{3}} arose

\[
\text{3 formally, } p = \lambda w . \exists e (\text{CONFERENCE}_w(we, e) \land \tau(e) = 3h).
\]
\[
\text{4 formally, } p = \lambda w . \exists e (\text{CONFERENCE}_w(we, e) \land \tau(e) = \text{ALMOST(3h))}
\]
by reanalysis at a time where precarious uses of \([\text{fast}]/\text{vast}\) increased. In the following, I will use \text{fast}_{\text{old}} \text{ and } \text{fast}_{\text{new}} to refer to these two uses.

The authors of the Deutsches Wörterbuch (DW) state that “isolated uses (of fast) in 16/17\textsuperscript{th} century slip towards [the ‘almost’] sense” without speculating about the kind of context or reason why these slips occur. The most concise claim in this direction is made with respect to a quote \text{fast um zwo uren} ((we arrived) at almost 2 o’clock), and the DW states that the author conveyed “ungefähr, gerade um zwei uhr, weil hier die Bestimmtheit leicht unbestimmtheit grenzt.” I find such statements dissatisfying, because I can not see how exactness can overlap conceptually with vagueness.

What is in fact typical about this quote is that \text{vast/\text{fast}_{\text{old}}} ‘very much’ would have required a gradable argument to combine with, whereas a time point like \text{zwo uren} can not be graded. Other non-gradable arguments that occur early with \text{fast} include the quantifier \text{alle} where again, ‘almost all’ is a reasonable semantic combination whereas ‘very much all’ would be semantically defective (Kennedy + McNally, 2005). We can hence use \text{vast alle} as indicators of early uses of \text{fast}_{\text{new}}. Using the source text section of the DW as a search base, I looked up the collocation \text{vast alle} to verify the dictionary’s estimate for early occurrences. (The older spelling variant \text{vast} was given up after 1800; it avoids hits in ModHG). The search yields 13 hits of which 12 date after 1500. An early quote from 1314 remained isolated in all later searches and I do not take it as an indication for a much earlier language change. A fuller search of the DW sources for \text{vast} yields 797 hits altogether, including a few double hits. The manually surveyed hits 1 – 200 reveal that those usages of \text{vast} that are dubious, ambiguous, or clearly ‘almost’ uses all date after 1500. The time boundary 1500 is confirmed by open Google search for “\text{vast alle}” (19.5.2010). An evaluation of first 100 hits yields 33 uses in Early ModHG texts; all after 1500, and a substantial portion even much later. Based on this evidence, we can preliminarily conclude that \text{fast}_{\text{new}} appeared after 1500.

This is corroborated by the Bonn Frühneuhochdeutsch Corpus, specifically the sources before 1500. These early sources contain 136 uses of \text{fast/vast}, among which only 3 are unclear uses, and zero uses in the sense ‘almost’, which confirms that \text{fast}_{\text{new}} was not in use before 1500. The spelling situation looks as follows: There are 87 hits of the form \text{vast(e), 70 of the form fast(e), but the latter include 60 hits in one document alone, hence idiosyncratic to its author. Excluding these, we have a 87:10 ratio between \text{vast:fast spellings which indicates that vast was common if not predominant at the critical time.}

While these searches showed that \text{fast}_{\text{new}} arose around 1500, they offered no clue for the source construction. We’ll therefore turn to Flugschriften gegen die Reformation, 1518 – 1524 (FgR, Laube and Weiss (eds.), pamphlets that were addressed to the educated public and argued against Luther’s reformation). In a total of 47 uses of \text{fast/vast} in these pamphlets, 2 clear uses show the new ‘almost’ sense, 2 uses are ambiguous between ‘very’ and ‘almost’, 9 uses are precarious. All quotes date from 1518 – 1524 and were written by preachers. The pamphlets show a mix of conservative, innovative, and precarious uses, quite typical when language change is underway. Let us first look at two clear uses of \text{fast}_{\text{new}}:

5 ‘The author conveyed exactly / almost at two o’clock because here, exactness borders easily to vagueness’.
(5) ... *dermassen es nun fast Quinta essentia worden ist ...* (FgR p. 90) such that it now almost quintessential become is 'such that it is by now almost quintessential’

(6) ... *die selbige seint yrer handwerkg halben fast alle zu the same are (for) their craft’s cause almost all to betlern worden ...* beggars become 'these have almost all turned to beggars, for their craft’s sake’ (FgR p.662)

In both cases, *fast* plausibly takes an argument that is not gradable (“become quintessential”, “all become beggars”). Such an argument couldn’t combine with the intensifying adverb *fastold* ‘determinedly, very’. The second passage moreover continues talking about other people who did not turn beggars but earn money with sinful occupations instead. This contrast likewise suggests an “almost all” interpretation. This shows that two authors had adopted *fastnew* in their mental lexicon.

More frequent were uses of *fastold* in precarious constructions. The following passages contain the collocation *fast ... alle* but are intended as conservative uses. A reanalysis in the ‘almost’ sense could be possible in both cases. However, the overall text passages do not suggest that the authors were talking about “almost, but not all N”.

(7) *Ain gegenwurff, darauff die feind der kirchen fast all a counter-thesis on which the enemies of the church fast all ir grund setzen.* their reasons put 'a counter-thesis on which fast all enemies of the church build their reasoning’ (FgR, p. 734)

In a conservative interpretation, the author used *fastold* ‘fixedly’ as a modifier of *setzen* ('put fast’). However, the modifier is separated from the verb by a definite NP. While adverb positions are very flexible in Early ModHG, definites tend to be placed before manner adverbs. Hence, syntax suggests an alternative structure in which *fast* modifies the NP *all ir grund*. This excludes *fastold* for semantic reasons, and can at least raise doubts in the reader as to what the author intended to say.

(8) (one should not say anything against selling indulgences) ... *welches doch fast in allen articeln geschieht.* which PRT *fast in all articles happens* 'which however happens fast in all articles’ (FgR, p. 61)

If we look for an argument for *fastold*, the verb ‘happen’ seems the only potential candidate. What the author seems to have had in mind is a combination of *fastold* with the antecedent of anaphoric *geschieht*: ‘in all articles, people argue determinedly against selling indulgences’. However, this reading is only accessible after anaphor resolution; moreover the modifier *fast* is again separated from its argument. Syntax suggests a combination (*fast + ‘in all papers’*). This can only be interpreted in terms
of fastnew. However, I suspect that the writer once more simply put things in a precarious way, as the surrounding text does not suggest an ‘almost’ reading.

While the previous examples show precarious uses of adverb plus verb, other quotes show that a propositional use was established at the time.

(9) und das ist alles gescheen durch das vorgissen des bluts
and that is all happened by the shedding of-the blood
Christi, wan keyne vorgebunge der sunde mag (...) ane
Christ’s if no forgiving of sin may without
blutvorgissunge bescheen,βo fast alle ding durch das blut gereyniget
blood-shedding happen so fast all things by the blood cleansed
werden.
become
’and all this happened by the shedding of Christ’s blood, as much as there is no forgiving of sins without bloodshedding, so fast get all things cleansed by the blood’ (FgR p.101)

Once again, fast is adjacent to a quantified NP. A verb-modifier reading yields the proposition ‘all things get very much cleaned by Christ’s blood’. However, the theological notion of being clean from sins is not gradable, and the proposition therefore implausible. In terms of linguistic structure, fastnew yields a plausible reading: [fastnew + all things] get cleaned by Christ’s blood. This message, however, would be even more heretical, as no sin is too bad to be cleansed by Christ’s blood. The author hence must have intended a proposition oriented reading: ‘as much as no sins can be forgiven without Christ’s blood’, βo fast = so much/certainly will all things be purified by the blood.’ The author attests that the proposition ‘all things get cleansed by Christ’s blood’ a high degree of truth.

While this may be logically senseless, the concept exists in many languages. Interestingly, the notion of something being ‘very true’ can apply to non-gradable as well as gradable content as illustrated by an example from ModE:

(10) As much as the Queen is the leader of the UK, she still has to obey the law.
‘It is very true that the Queen is the leader, but still …’

I will not expand into a full analysis, but the construction offers a possibility to combine ‘very much’ with sentences that do not themselves refer to grades. More quotes of this kind are added in an appendix.

The quotes from FgR show that speakers/writers used fastold in unperspicuous constructions. Specifically propositional uses ‘it is very true that p’ often contain fastold with a sister constituent that doesn’t denote a gradable concept. Readers could still “get” the intended message, based on fastold. Alternatively, at least some of these cases could also lend themselves to a semantic composition with fastnew. This could lead some readers/hearers to believe that other speakers used fast in a sense that was not yet part of their own mental lexicon. We simply need to find examples that could suggest a new meaning fastnew = ‘almost’ to such uncertain hearers/readers. Let me offer several suggestions about potential places for reanalysis.
In some cases, negation of high degrees results in an ‘almost’ reading. The following quote exemplifies the constellation.

(11) \[\text{es ist nit fast nutz ...}\]

it is not fast useful
(FgR, p. 558)

A conservative narrow scope LF \[\text{[‘not’ [fast \_old + ‘useful’]]}\] yields the statement that something is ‘not very useful’.

\[\llbracket \text{es ist nit fast nutz} \rrbracket_{\text{old}} = \text{‘its degree of usefulness is not very high’}\]

The reader might understand the stronger message that the thing in question is ‘almost useless’. This message can feed a reanalysis into the new LF \[\text{[fast\_new + [‘not useful’/‘useless’]]}\].

\[\llbracket \text{es ist nit fast nutz} \rrbracket_{\text{new}} = \text{‘it is almost useless’}\]

reanalyzing \[\llbracket \text{fast} \rrbracket_{\text{new}} = \lambda P. \text{ALMOST}(P)\]

Another option could be reanalysis triggered by scalar implicatures. Intensifying fast is often combined with other intensifying constructions, like in the following example:

(12) \[\text{sei rouften laut, sei schrewend fast}\]

they called loudly, they screamed fast
Heinrich Wittenwiler, Der Ring (c. 1408/10), part I, l. 352

This example is pragmatically precarious. Arguably, schrewen (‘scream’) is a more intense variant of roufen (‘call’). roufen can be intensified to rouften laut which, by itself, gives rise to the scalar implicature ‘they didn’t do anything more intense than call loudly’. The subsequent statement that they also schrewend fast (‘scream very much’) can be interpreted conservatively, and hence cancel the implicature. However, the reader/hearer could also be led to assume an alternative rhetorical structure in which the second conjunct elaborates the first:

(12’) \[\text{they cried loudly, they almost screamed}\]

If this were the understood message, the hearer would again infer a (new) lexical entry \[\llbracket \text{fast} \rrbracket_{\text{new}} = \lambda P. \text{ALMOST}(P)\].

Finally, there could be reanalysis from propositional operator to low-scope operator. The following quote illustrates this (I do not suggest that this actual quote was the source for reanalysis).

(13) \[\text{wa sol ich dich aber uff daz kürztz hinschicken in}\]

where shall I you but on the shortest send in
Paulo, Jacobo, Petro, Johanne, so fast all ir episteln uff Paulo, Jacob, Petrus, John, so fast all their epistles on
gesetze und guete werck gen?
laws and good deeds go  
(FgR, p. 408)

The author wants to back up an earlier claim by a supporting quote from the New Testament which, as stated, contains plenty: which one should he pick? In a conservative interpretation, the author wrote ‘where should I direct you—as much as it is true that all epistles are about laws and good deeds?’ i.e. a rhetorical gesture of helplessness. (Lutherans were commonly better read in the bible than Catholics.) An alternative interpretation would essentially make the same point: ‘Where should I direct you, given that almost all their epistles aim towards laws and good deeds?’.

\[ \text{LF}_{\text{old}}: \text{[ so fast [ all epistles go for laws and good deeds ]]} \]

\[ [S]_{\text{old}} = \text{`as much as it’s true that } p \text{’} \]

\[ p = \text{‘all their epistles aim towards laws and good deeds’} \]

\[ \text{LF}_{\text{new}}: \text{[ so [ fast all epistles] go for laws and good deeds ]} \]

\[ [S]_{\text{new}} = \text{‘as (almost all) their epistles aim towards laws and good deeds’} \]

reanalysing \[\text{[fast }]_{\text{new}} = \lambda P. \text{ALMOST}(P)\]

Potential sources for reanalysis might have occasionally occurred at all times, but they gained momentum when the general spectrum of uses of fast in all its older senses had become wide, and when precarious (older) uses seem to increase.\(^6\) I took this final, lengthy example to illustrate not only semantic reanalysis as a process, but also the linguistic and communicative landscape in which semantic reanalysis occured.

4. More research, past and future

I view semantic reanalysis as an independent kind of semantic change which can best be captured by making use of theories of semantic composition such as truth conditional semantics. This allows us to better understand the unconscious reasoning of the hearer/reader in the phase of change, as well as the communicative situations that spur such reasoning. I suggest that precarious uses of words can invite hearers to reanalyse. More cases illustrate this point, like \textit{lauter} (Eckardt 2006), \textit{even} (Traugott 2001, Eckardt 2009), \textit{selbst} (Eckardt 2006) and it is indirectly advocated by authors who warn against teleological models of change.

Semantic and pragmatic formats that reflect semantic composition at an appropriate level of detail are indispensable in understanding the laws and limits of semantic reanalysis. Formal analyses can help to separate instances of generalization from instances of reanalysis (see Condoravdi and Deo, 2006), investigate the semantics of functional terms in detail (Deo 2006, Gerô and von Stechow 2003, Haug 2008) and, finally, begin to understand the semantic and pragmatic contribution of grammaticised discourse markers (Zeevat and Karagjosova, 2009).

\(^6\) It might be tempting to speculate that the speaker-hearer constellation in this particular type of text, written by theological experts for lay readers, likewise supported reanalysis. A verification of sociolinguistic claims requires electronic sources that are not, presently, available for German.
Such analyses also offer new access to the question for pushing factors in language change. Precarious language use can be precarious in many ways, including pragmatic infelicities, unusual syntactic constructions, unusual operator-argument constellations in syntax, semantically baroqueness, to name but a few. I see no reason to postulate a predominant pushing factor. Roberts + Roussou, 2003, Roberts 2010 discuss cases with morphosyntactic factors as driving force, yet other changes are visibly driven by the hearer’s attempt to fit a new message into a given structure. Without a representative range of detailed case studies, we can just speculate whether semantic simplifications, LF simplification, syntactic streamlining or reanalysis in analogy to given structures in the language predominate as causes in change.

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