Demonstrative reinforcement cycles and grammaticalization[1]

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Abstract

Demonstratives, broadly defined as deictic expressions, do not develop through grammaticalization (Diessel 1999: 150). The renewal of demonstratives, and the mechanisms and motivations underlying such processes, have not been studied in great detail. Greenberg's (1978) observation that demonstratives are often replaced by reinforced forms might shed light on this diachronic process, and this study aims to explore this phenomenon further, as well as its connection with grammaticalization. I hypothesize that the frequent reinforcement of demonstratives can lead to the development of new demonstratives, which may catalyze the grammaticalization of old ones. The hypothesis presented here differs from many other accounts of renewal in that it sees reinforcement as a possible driving force behind grammaticalization, and not vice versa, as suggested in Diessel (2006: 474) and van Gelderen (2011: 210), among others.

1 Introduction

Grammaticalization can generally be described as a process which creates grammatical elements from lexical items. Certain parts of the grammar however do not seem to emerge through grammaticalization. Diessel (1999: 150) states, on the basis of a large sample of typological and diachronic data, that "there is no convincing evidence from any language that would indicate that demonstratives evolve from a lexical source". Although the development of demonstratives into other grammatical markers, such as definite articles or personal pronouns, has been the object of many studies (Greenberg 1978, Diessel 1999, van Gelderen 2011, among others), the emergence of demonstratives themselves has – as far as I am aware – not been studied in great detail. Thus, the mechanisms and motivations that are relevant in the development of demonstratives are still somewhat obscure. How do demonstratives come about? The following observation from Greenberg (1978: 77) seems highly relevant in this respect: "Demonstratives are being constantly replaced by new demonstratives usually formed from the older ones by the addition of new deictic elements, by reduplication, etc."

This article explores whether the processes suggested by Greenberg can provide new insights into how basic demonstratives come about. I suggest that demonstratives are renewed through cyclic reinforcement in a process that resembles the renewal of negation markers, known as *Jespersen's cycle* (see Dahl 1979). The arguments are primarily supported by data from Norwegian, although the article also provides additional examples from non-European languages. After this introduction, section 2 presents some basic terms that are relevant for the discussion in the paper, and section 3 presents the data sources. Section 4 gives an overview of how demonstratives can be reinforced synchronically, with a focus on Norwegian data. In section 5, I present possible stages and outcomes of demonstrative reinforcement cycles, and I discuss possible motivations behind them. In section 6, I discuss how grammaticalization and rein-

forcement may be intertwined in demonstrative cycles, and I suggest that grammaticalization of demonstrative intensifiers may shed new light on the semantic properties that are encoded in demonstratives, such as contrast or distance marking.

2 Basic terms

The terms *demonstrative* and *deixis* are used with different meanings in the literature (cf. Dixon 2003: 63), and a terminological clarification is therefore necessary. In this article, *demonstrative* refers to a closed-class expression with deictic reference, such as the English *this* and *that*. This is a relatively broad definition, which includes determiners, pronouns and adverbs such as *here* and *there*, because they are used with deictic meaning (they point to a location).

The term *deixis* is often used in the literature to describe words that cannot be understood without contextual information, such as personal pronouns. For practical reasons, I use the term in a more restricted sense, and in this paper, it refers mainly to the pointing function of demonstratives. A deictic expression is thus an expression which is used to help discourse participants identify a specific referent, either in the physical surroundings (*exophoric* deixis) or in the discourse (*endophoric* deixis).

All known human languages have demonstratives (Diessel 2006: 463), that is – at least one word or morpheme which can be used with pointing function. However, demonstratives usually encode some other information in addition to deixis. Typical examples include distance (near or far from speaker or hearer, cf. English *this/that*), animacy, gender, number, and so on.

3 Data

The sentences and constructions that are presented and discussed in this article are primarily from the Norwegian part of the *Nordic Dialect Corpus* (henceforth NDC).[2] NDC is an electronic corpus which consists of 2.8 million words from recordings of spontaneous speech (Johannessen et al. 2009: 74). Since the corpus is grammatically tagged, it is possible to search for both specific lexemes and general word classes. The demonstrative intensifiers *her* 'here' and *der* 'there' come in many different dialectal variants, such as *herane, herne, henne*, and in order to capture these forms, I have searched for [her]/[hen] and [der]/[den] as "start of word".[3] The study primarily builds on qualitative analyses of utterances from NDC, although it is augmented by quantitative measurements of frequency, which can shed light on the relationship between simple and complex demonstrative constructions.

The study investigates demonstratives from a diachronic perspective. However, since exophoric demonstratives and demonstrative reinforcement are primarily associated with spoken language, they are difficult to trace historically (cf. Reinhammar 1975: 57). Electronic text archives with historical texts, such as *Menota* and *Diplomatarium Norvegicum*, show few or no examples of adnominal use of *her* or *der* in Old Norse or Middle Norwegian. My analysis of the historical development of Norwegian complex demonstratives is therefore hypothetical and partly based on knowledge of the use of these demonstratives in present-day dialects, as well as knowledge of demonstratives and the development of their functions in general (particularly Diessel 1999 and Dahl 2003).

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[2] See <http://tekstlab.uio.no/nota/scandiasyn/> (accessed 15.02.17)
[3] The search strings were: "[determiner/pronoun] + [her%/der%/hen%/den%]", and "[noun] + [her%/der%/hen%/den%]".

4 Demonstrative reinforcement: A synchronic picture

4.1 "New" demonstratives in Norwegian

Norwegian has three main types of simple demonstratives (I will focus here on the adnominal demonstratives). The object demonstratives *denne* and *den* are similar to the English 'this' and 'that'. Norwegian also has person demonstratives that are formally similar to personal pronouns, namely *han* 'he' and *hun* 'she'. These are used in phrases such as *han mannen* 'that man', and signal "psychological distance" between the speaker and the referent, according to Johannessen (2006: 100). In addition, there is a manner/similarity demonstrative *sånn*, which is used in adnominal position with the meaning 'like this/that'. *Sånn* is similar to the German demonstrative *so* (*en sånn bil, so ein Auto* 'a car like that').

In Norwegian, demonstratives may be reinforced by derivatives of the location adverbs *her* 'here' and *der* 'there'. A reinforced demonstrative functions as one syntactic unit although it is a combination of words, and is referred to as a *complex demonstrative*. Reinforcement of demonstratives with locative elements can be found in many Indo-European languages, including many Germanic languages and dialects (see Raidt 1993), such as English, Bavarian and Afrikaans, and Romance languages such as French and Spanish.

There are two types of demonstrative reinforcement in Norwegian: The first type is reinforcement with a short, and often stressed, *her/der*-element, such as the complex demonstrative in example 1, which emphasizes the exophoric function ('this paper I am holding here'). Intensifiers of exophoric function can be prenominal, postnominal, or both, as in (1).

(1) **det**   **her**   **arket**   **her**
     that   here   sheet.DEF   here
     'this sheet here' (NDC, steigen03_gm)

The second type is reinforcement with unstressed *her(re)/der(re)*, such as the complex demonstratives in example 2 and 3, which emphasize a more grammaticalized *recognitional* function (see also Lie 2008 and 2010, and Johannessen 2012).

(2) *Jeg*   *synes* *det*   *var*   *så*   *tregt* *med*   **den**   **derre**
     I   think   it   was   so   dull   with   that   there
     felemusikken.
     fiddle-music.DEF
     'I think that fiddle music was quite dull.' (NDC, lardal_04gk)

(3) *E …*   *han*   *heter*   **han**   **derre**   **musikeren**?
     er …   he   is called   he   there   musician.DEF
     'Er … what was the name of that musician guy?' (NDC, alvdal_04gk)

Referents of recognitional demonstratives typically denote private and speaker-hearer-shared information, and the demonstrative signals that "you know what I am talking about" (cf. Diessel 1999: 106). The intensifier words in the second construction type may be extended with an *e*-ending (as seen in 2 and 3), which has unclear etymology, but is most likely a descendant of an Old Norse *na*-suffix: *hérna* 'right here' (see Heggstad et al. 1975). The second type of complex demonstratives does not have a contrastive, deictic meaning, and the variation between proximal and distal intensifiers therefore seems more random. Nevertheless, the distal variant with *derre*-intensifiers is more frequent: In the NDC, *herre*-forms are used 614 times, and *derre*-forms 1306 times.

When the adnominal similarity demonstrative *sånn* 'such' is reinforced by a stressed intensifier, the contrastive deictic function is emphasized: *En sånn **der** bil jeg ha* 'I want a car like that'. Unstressed intensifiers, on the other hand, are used when the demonstrative has more grammaticalized meaning – that is, when the deictic function is bleached. *Sånn herre/derre* 'like this/that' is used to introduce referents in the discourse, similar to the indefinite article *en/ei/et* 'a'. In addition, the co-occurring nouns are often non-conventionalized or a bit "unusual" (see also Lie 2008: 87):

(4)	*Vi*	*skal*	*kle*	*på*	*oss*	***sånn***	***derre***	***Onepiece.***
	we	shall	dress	on	us	such	there	Onepiece

'We're going to dress up in those Onepieces.' (NDC, kvaenangen_01um)

Corpus analyses show that although simple adnominal demonstratives (*den bilen* 'that car') are more type frequent and token frequent than complex demonstratives (*den der bilen* 'that there car') in Norwegian, the complex variants have higher potential productivity. In other words, complex demonstratives are more frequently used with *hapax legomena* (words co-occurring with the demonstrative only one time), relative to their token frequency (Baayen 2009: 902). This indicates that complex demonstratives have higher potential for becoming productive because they attract more lexemes (referents) relative to their type frequency.

As complex demonstratives become more productive and more frequent, they can become *chunked* (become one unit) and acquire specialized functions. Norwegian complex demonstratives are not merely a demonstrative with an intensifier – *den der* 'that-there' functions as one syntactic unit with a particular function that cannot be derived from either of its parts, and can thus be interpreted as one single demonstrative. In a phrase such as ***den der** gule boka* 'that there yellow book', there can be no intervening elements such as an adjective between the demonstrative and the intensifier (****den gule der** boka*). Furthermore, complex demonstratives are sometimes written as one word: *dender*.

The "old", simple demonstrative is often phonetically reduced in the grammaticalized and recognitional use of complex demonstratives. In Trøndelag Norwegian, the old demonstrative may even be omitted completely (cf. example 5). Hence, this variety has gotten a new type of object demonstrative through a previous complex demonstrative.

(5)	*Har*	*du*	*sett*	*_ **derre***	*nye*	*reklamen?*
	have	you	seen	_ there	new	commercial

'Have you seen that new commercial?' (NDC, stokkoeya_33)

4.2 A cross-linguistic perspective of demonstrative reinforcement

Demonstratives are a true universal category in the world's languages (cf. section 2). We have seen that Norwegian and other Germanic demonstratives may be reinforced by locative elements *her* and *der*. However, reinforcement of demonstratives is not only common in Germanic and Romance languages. It can be found in other language families as well (cf. Diessel 1999: 28–32). In this section, I will present examples of some attested types of demonstrative reinforcement cross-linguistically.

Demonstrative reinforcement through reduplication can be found in languages with productive reduplication, such as Austronesian and Bantu languages (Rubino 2005). Reduplication in general can have many different functions, such as expression of number, tense and size (ibid.). However, a common function is to intensify meaning, and demonstrative reduplication can be a way of emphasizing distance contrast. This type of demonstrative reinforcement can be found for instance in the Nilo-Saharan language Karimojong: *lo-kile-lo* 'this man this'

(Novelli 1985: 118).[4] Other languages that reduplicate demonstratives are Bantu languages such as Swahili (Maw 1999: 140) and Kimatuumbi (Odden 1996: 41). The Algonquian language Ojibwa has demonstratives that show historical traces of demonstrative reduplication (Proulx 1988: 311).

Affixation is another common way of intensifying demonstratives. Typically, intensifying affixes carry additional meaning to the intensifying function of deictic contrast; they can for instance express 'visible' or 'non-visible'. Furthermore, if the demonstrative has grammaticalized, the affix may not be an intensifier of deictic contrast at all anymore, but of other demonstrative meanings, such as 'emotional'. For example, Blackfoot, an Algic language spoken in Alberta, Canada (Frantz 1997: 65), uses the suffixes *-ma* 'stationary', *-ya* 'moving', and *-hka* 'invisible to speaker'. Demonstratives in Blackfoot may also be extended with a *-sst*-suffix, which yields a "diminutive" meaning: "They are used for referents which the speaker views with pathos or affection" (Frantz 1997: 62). According to Proulx (1988: 311), many examples of demonstrative reinforcement can be found in Algonquian languages in general – in addition to demonstrative reduplication in Ojibwa, the demonstrative roots **m-* 'this' and **n-* 'that' have possibly been reinforced with the suffix *-ah*, probably a locative ending initially, in Kickapoo (resulting in the demonstrative forms *maahaki* 'these, animate', and *mana* 'this, animate'). The history of Norwegian also shows traces of reinforcement through affixation. Old Norse used the suffix *-si* on neutral object demonstratives (Johansson/Carling 2015: 20), which came to mean 'proximal' (*þessi* 'this'). The etymology of the *-si*-suffix is obscure, but Bugge (1871: 119) suggests that it derives from the imperative of the verb *sjá* 'see'.

Finally, lexical reinforcement is the type of reinforcement where emphasis is added by an extra word. The intensifier word may be another demonstrative (as in Norwegian), or it can be another lexical item, such as the Latin *ecce* 'behold/see' (*ecce ille* 'see this'). The Kadu language Krongo uses the intensifier word *áa* (Reh 1985: 171), and in European languages, reinforcement with locatives seems to be very common: Norwegian (*den her/der*), Afrikaans (*hierdie/daardie*), Bosnian/Serbian/Croatian (*ona tamo* 'that there'), in addition to French (*ceci/cela*), and others.

It is important to stress that the types of reinforcement mentioned here do not entail "pure" reinforcement of the deictic meaning – additional information can be "transferred" to the demonstrative from the intensifier. That is, distal meaning may for instance be transferred from *der* to the complex *sånn der*, which originally was unmarked for distance. This additional information can of course be bleached in subsequent grammaticalization of the complex demonstrative.

5 Demonstrative cycles

5.1 Reinforcement as renewal of grammatical meaning

This article is concerned with the emergence of new demonstratives, and the term *renewal* is therefore relevant. Renewal can be defined as a process where "existing meanings take on new forms" (Hopper/Traugott 2003: 122), rather than existing forms changing their meaning, which is typical for (de)grammaticalization. Renewal can for instance happen through substitutions, termed *renovation* by Lehmann (2015: 22). An example is the replacement of the English definite article *the* by the (former) demonstrative *that* in spoken varieties (van Gelderen 2011: 214). Replacement of intensifying adverbs is another example (*very > awfully*, cf. Hopper/Traugott 2003: 123). The other type of renewal is *reinforcement,* or addition of an intensifier element.

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[4] This is just one type of demonstrative reinforcement found in this language.

The development of complex demonstratives has several properties in common with Jespersen's (1917) well-known analysis of the renewal of clausal negation markers – the so-called Jespersen's cycle (Dahl 1979). It was identified as a cycle by Dahl (1979: 88) on the basis that "we go from a single particle to a double and back again". Jespersen (1917) hypothesized that negation markers are often strengthened or reinforced by another marker (an intensifier), and after a subsequent weakening of the original negation marker, the intensifier is reanalyzed as the negation marker (as in 6), or the two elements may coalesce.

(6)   *ne V* → *ne V **pas*** → *(ne) V **pas*** (French)

If we look at the Norwegian data again, demonstratives in Trøndelag Norwegian seem to have gone through a similar cyclic change:

(7)   *den N* → *den **derre** N* → *(den) **derre** N* (Trøndelag Norwegian)

Van Gelderen (2011: 197 ff.) states that demonstratives can undergo cyclic change by grammaticalizing into articles and case markers, and by being renewed through another linguistic element – often a locative adverb. As an example of a demonstrative cycle, she looks at the Old English demonstrative *se*, which was reanalyzed as a definite article (*the*). In modern spoken English, *the* is again replaced by a demonstrative, namely *that*. Furthermore, *that* is reinforced through the locative *there*, as in Scandinavian: *that there affair* (ibid: 16). The term *demonstrative cycle* is used in a narrower sense here than by van Gelderen, in that the cycles discussed include reinforcement. A reinforcement cycle is defined here as a process of renewal which involves grammaticalization, but in addition the new forms must arise through *reinforcement* of the old form, as in Jespersen's negative cycle. Thus, the demonstrative cycles that are discussed here do not cover cases such as the development of the Old English demonstrative *se* into the Modern English definite article *the* and subsequent replacement by *that*, because they do not involve reinforcement by a gram or lexeme.

The process by which a linguistic item is renewed through reinforcement can be called *cyclic reinforcement* (Norde 2009: 57). Another term for this type of change is spiral, which was introduced by Von der Gabelentz (2016 [1901]: 269). Although *spiral* might be a better term than *cycle* because the type of change does not come back to the exact same starting point, it is not as widely used in the literature as *cycle*. As far as I am aware, demonstrative cycles have received far less attention than negative cycles.

5.2 Competition as a driving force through late stages in demonstrative cycles

There are several possible stages and outcomes of a demonstrative reinforcement cycle, similar to the negative cycle. The old demonstrative can be replaced by the entire complex demonstrative (e.g. the proximal demonstrative *den här* replaces *denna,* colloquial Swedish) or by the intensifier word (*herre* replaces *denne (herre)* in Trøndelag Norwegian). Another possible outcome is that the complex demonstrative may specialize in a new function, which leads to functional split and extension of the demonstrative paradigm. An example of this is the development of the recognitional demonstratives in Norwegian (*den derre N*, cf. section 4.1), or the development of the proximal demonstrative in Old Norse (*sá-si* 'that-INT > *sjá* 'this, prox.').

Chunking, defined as "the process by which sequences of units that are used together cohere to form more complex units" (Bybee 2010: 7), describes the development from a reinforced demonstrative to a syntactically unified complex demonstrative. After this process has taken place, a new demonstrative, which is near-synonymous with the old demonstrative, is formed.

A possible motivation behind the competition between the new and old form is the Principle of Contrast (Clark 1987). Diachronically, near-synonymous expressions are either presumed to differentiate in meaning (cf. the emergence of the proximal demonstrative in Old Norse, section 4.2), or to out-compete each other (cf. the Swedish *den här*). In recent literature on diachronic morphology, this type of paradigmatic competition is referred to as competition for a *functional niche* (see Aronoff 2016), which is analogous with the competition between species for an ecological niche. The reinforcement itself, however, cannot be motivated by competition.

5.3 Motivations behind reinforcement

What motivates the reinforcement stage in demonstrative cycles? One hypothesis is that reinforcement arises from a need to formally differentiate the adnominal demonstrative from the definite article (see Greenberg 1978, Diessel 2006, van Gelderen 2011, Szczepaniak 2011). Demonstratives are a very common source of definite articles (Heine/Kuteva 2002: 110), and therefore the two functions can often be formally identical at some stage. In order to differentiate the two forms, an intensifier is added to the demonstrative. This account can be referred to as a grammaticalization-first-hypothesis, since it takes the grammaticalization of demonstratives to be the indirect cause of reinforcement. However, this hypothesis implies that there is a "functional gap" at some stage, and that the demonstrative needs to be repaired in order to function properly. Such explanations are teleological, and they are problematic because they not only imply that a language may have non-functional demonstratives – they also imply that language users are capable of "looking into the future" (cf. Croft 2000: 69, Kuteva 2001: 44). Although language change can lead to a functional outcome, for instance the development of case, number or an unambiguous exophoric demonstrative, the change in itself is not motivated by a need to fill these functions. Renewal of demonstratives should be considered the *result* of reinforcement, not the cause.[5]

Instead, we should search for motivations external to the cycle. Within a usage-based approach, speaker strategies in language use are considered crucial in accounting for such changes. Reinforcement of demonstratives happens spontaneously at first, as a way to help the hearer identify the referent, e.g. by specifying its location: "the sender may reduce the risk of faulty delivery by adding redundancy" (Dahl 2004: 11). Furthermore, reinforcement happens all the time, even when the language has fully functional demonstratives (cf. section 4). In other words, renewal does not *only* happen when the demonstrative is formally identical with some grammaticalized word. An important insight from grammaticalization research is that grammaticalization happens in restricted contexts (cf. Heine/Kuteva 2002: 2). The demonstrative may very well continue to carry out the old function outside of that context, and this is yet another argument that grammaticalization and desemanticization of demonstratives cannot be considered a trigger for reinforcement. It is more plausible that the cause and effect are inverted: When new forms are generated from reinforcement and subsequently chunked as new demonstratives, competition between forms can work as a catalyst for grammaticalization. For instance, the complex demonstrative with a short and stressed intensifier *den der* 'that there' was initially an unambiguous marker of exophoric deixis, while the simple demonstrative *den* 'that' was used with a wider range of functions. If *den der* is increas-

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[5] Likewise, the biological evolution and adaptation of a species is not driven by what that species needs, although it might look like it: When the giraffe species over time evolves longer necks, it is not caused by a need to reach for higher leaf branches, but rather, it is a *result* of the fact that those individuals that were born with longer necks (due to random variation) had a greater chance of surviving and surpassing their (randomly good) genes, since they could reach more leaves.

ingly used instead of *den* in order to express exophoric function, *den* will be more associated with its more grammaticalized functions (e.g. anaphoric use).

How can reinforcement and emergence of new forms catalyze grammaticalization of old ones? One part of the answer to this question may be that increased competition for the same functional niche leads to reanalysis. The Principle of Contrast may account for the assignment of new functions to near-synonymous forms (cf. section 5.2). The main difference between a new demonstrative, which has emerged through reinforcement in specific speech situations, and old ones, is that the new has a narrower functional range – it is specialized in expressing exophoric deixis (at first). If the speaker has the choice between a form with an unambiguous meaning and a form which is more polysemous, s/he might choose the unambiguous one in order to make the expression clearer, if the goal is to achieve joint attention (see Diessel 2006: 464). The old form may over time become more associated with the grammaticalized functions, and thus "pushed" around the cycle by the new form.

6 Grammaticalization of demonstrative intensifiers

We have seen that demonstratives can come about through reinforcement cycles. Is the development of demonstratives through cyclic change a type of grammaticalization? The first stage of the cycle – the reinforcement – involves semantic and phonetic *strengthening*, e.g. *den* 'that' > *den der* 'that there' (extra phonetic material plus emphasized deictic meaning). In other words, this development is characterized by the opposite of the hallmark mechanisms in primary grammaticalization (cf. Heine/Kuteva 2002: 2). However, seen from the perspective of the intensifier word rather than the entire construction, the central mechanisms are *reduction of syntactic freedom* (e.g. from adverbial to adnominal to suffix), *semantic bleaching* (loss of deictic function), and *phonetic attrition*. Hence, the intensifier elements can be said to undergo grammaticalization during reinforcement cycles. Furthermore, demonstratives may grammaticalize after the processes of reinforcement and chunking (cf. section 5.2). Describing the whole reinforcement cycle as grammaticalization is problematic, however, since there are two elements before the chunking, and only one after.

New grammatical functions do not necessarily develop during demonstrative cycles. In Swedish, *den här* is replacing *denna*, and neither can be said to be more grammatical than the other. Hence, we get new form, but "old meaning". More importantly, deictic meaning does not seem to develop through grammaticalization (cf. Diessel 1999: 150), but other meanings denoted by demonstratives, such as distance or animacy, may result from *grammaticalization of intensifiers*, which is a part of demonstrative cycles.

7 Summary

I have presented a hypothesis that a common way of renewing demonstratives is through *reinforcement cycles*, rather than grammaticalization. The reinforcement cycle starts with the reinforcement of a demonstrative through addition of an intensifying element. Subsequently, the reinforced demonstrative may be chunked as one unified demonstrative, which competes with the old demonstrative. Alternatively, the intensifier may "take over" the job as demonstrative if the old demonstrative is phonetically eroded (as in Trøndelag Norwegian). I have argued that the motivation behind reinforcement cannot be a need to replace a weakened demonstrative, but rather, that we should see renewal as a functional *result* of reinforcement rather than a cause. More research is required in order to uncover the motivations behind the reinforcement cycles, in addition to investigate how common the cycles are cross-linguistically.

Demonstrative reinforcement cycles can involve grammaticalization of the intensifier, which may add new grammatical meaning to old demonstratives. This process can therefore shed

light on why demonstratives often express grammatical information additional to deixis, such as distance and animacy. The development of demonstratives through cyclic reinforcement may be a parallel to Jespersen's cycle.

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