Language Change as Cyclical:
A Window on the Language Faculty

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In this paper, I briefly introduce the notion of the linguistic cycle and examine two cycles in the history of English. The first cycle involves the current English subject pronoun being reanalyzed as a clitic and agreement marker and the second involves changes in the demonstrative and article system. I also provide some explanations for cyclical change as originating from innate principles that the language learner applies. Thus, systematic language change can provide insight into the language faculty.

1. Introduction

In this article, I review a few instances of what Hodge (1970), Tauli (1958), and others have called the linguistic cycle. Since this is an article for Studies in Modern English, I will mainly focus on cyclical change in English. A cycle can be defined as a time span during which certain events take place and come to a conclusion. Towards the end of the cycle, similar events start again, but they are (slightly) different and happen at a different pace. The changes are therefore unidirectional. Some well-known linguistic cycles involve negatives, a cross-linguistic change of full negative phrases to words to affixes and of full verbs to negative auxiliaries; verbal agreement, where full pronouns are reanalyzed as agreement markers; aspect, when adverbs become aspectual markers; and articles, when demonstrative pronouns are reanalyzed as articles and then as affixes.

There are early advocates of the view that language change is cyclical, e.g. de Condillac (1746), Tooke (1786-1805), von Humboldt (1822), and Bopp (1816). The oft-cited passage in von der Gabelentz (1901) uses ‘spiral’ to indicate that new cycles are not identical to the old ones:
always the same: the development curves back towards isolation, not in the old way, but in a parallel fashion. That’s why I compare them to spirals. (von der Gabelentz 1901: 256, translated by EvG)

In the 1950s, Tauli (1958) provides many examples of cyclical change, but apart from sporadic work, e.g. by Hodge (1970), Greenberg (1978), Givón (1976), and Tauli (1966), not much research had been done up to very recently. The renewed interest in grammaticalization starting in the 1980s is, of course, essential to understanding the linguistic cycle, with work such as Givón (1976), Lehmann (1985, 1995), Traugott & Heine (1991), Abraham (1993), Hopper & Traugott (2003) and others.

Recently, work on the negative cycle has started to appear. For instance, from June 2008 to December 2009, one-day events on the negative cycle took place in Birmingham (http://www.lhds.bcu.ac.uk/english/cycles-of-grammaticalization), but other cycles have not been given as much attention. Cycles of language change have not been studied in generative linguistics (apart from again the negative cycle), and only sporadically in other formal frameworks. In April 2008, a workshop in Arizona attempted to bring together linguists who were interested in cyclical change from a variety of frameworks to contribute to new directions in work on language change. The result is published as van Gelderen (2009). The present article gives evidence for two cycles.

The outline of this article is as follows. I review some stages of the subject cycle in section 2, focusing most discussion on English, and some stages in the demonstrative cycle in section 3. In each section, I will propose that Economy Principles (formulated within the Minimalist Program; Chomsky 1995; 2005) account for these cycles, in particular the Feature Economy Principle. Using Minimalist Principles provides a unique way to look at the cycles.

2. The Subject Cycle

Givón (1978), arguing that agreement markers arise from pronouns,
says “agreement and pronominalization ... are fundamentally one and the same phenomenon” (1978: 151). The traditional agreement cycle can be represented as in (1), namely as having a demonstrative/pronominal source.

(1) Subject (and Object) Agreement Cycle
    demonstrative/emphatic > pronoun > agreement > zero

Emphatic and demonstrative pronouns can be reanalyzed as subject pronouns, which in turn can be reanalyzed as agreement and later be lost. I refer to this series of changes as the Subject Agreement Cycle or Subject Cycle. Subject agreement is frequent, as Bybee’s (1985) estimate of 56% verbal agreement with the subject shows and Siewierska’s (2008) of 70%. Subjects aren’t the only arguments involved in this kind of a cycle; object pronouns can also become agreement markers (see van Gelderen forthcoming). Section 2 is divided into a section that has mainly data (2.1) and one that discusses accounts (2.2).

2.1. Data

The changes in (1) have been studied extensively. According to Tauli (1958: 99, based on Gavel & Henri-Lacombe 1929-37), the Basque verbal prefixes n-, g-, z- are identical to the pronouns mi ‘I’, gu ‘we’, and zu ‘you.’ Givón (1978: 157) assumes that Bantu agreement markers derive from pronouns. As early as the 19th century, Proto-Indo-European verbal endings -mi, -si, -ti are considered to arise from pronouns (e.g. Bopp 1816). Hale (1973: 340) argues that in Pama-Nyungan inflectional markers are derived from independent pronouns: “the source of pronominal clitics in Walbiri is in fact independent pronouns”. Likewise, Mithun (1991) claims that Iroquoian agreement markers derive from Proto-Iroquoian pronouns. Fuß (2005) cites many additional examples.

Thus, in many languages, the agreement affix resembles the emphatic pronoun and derives from it. The most well-known case is, of course, French subject pronouns. In the history of French, the subject jo ‘I’ is reanalyzed
from emphatic pronoun to subject pronoun to clitic je and is currently regarded by many (Lambrecht 1981; Zribi-Hertz 1994) as an agreement marker, e.g. (2a) shows an additional emphatic typically present, (2b) and (2c) show that subject marker is obligatory. The same is true for the second person and in many dialects even for third person, as in (3).

(2) a. *Moi, j’ai lu ça. Colloquial French
me I-have read that
I’ve read that.
b. *Je lis et écris Colloquial French
I read and write
c. *Je probablement ai lu ça French
I probably have read that

(3) Personne il a rien dit Colloquial French
person he has nothing said
‘Nobody said anything.’ (Zribi-Hertz 1994: 137)

In English, what looks like Case on pronouns can be argued not to be that: the nominative (I, s/he, etc.) marks the head (more to the right on the cline in (1)) and the accusative (me, her/him, etc.) indicates the phrasal variant (more to the left in (1)). I show how the modification and coordination of the head and fully nominal variants differ and also how first and second person pronouns are often repeated if separated from the verb.

English nominal subjects can be phrasal since they can be modified, as in (4), and coordinated, as in (5).

(4) that book’s rejection by ten publishers (he had still not heard from The Applecote Press, Chewton Mendip) had made him a little nervous of putting pen to paper. (BNC - ASS 2596)

(5) To pay for these new weapons, the Pentagon and the Office of Management and Budget have proposed a number of cuts in other accounts. (http://www.d-n-i.net)
English pronouns are less clearly phrasal since they are not often modified and coordinated. Thus, in the British National Corpus (BNC), there are no instances where the adjective modified the pronoun *he*. The coordinated *she and he* occurs 8 times in the BNC and *he and she* 19 times. The pronouns by themselves, on the other hand, are very frequent: there are 640,714 instances of *he* and 352,865 of *she*.

(6) while *he and she* went across the hall, Jasper appeared, running ...  
(BNC - EV1 2028)

The reason that sentences such as (6) are rare may have to do with Case. When pronouns are coordinated, they show an accusative/oblique case in colloquial speech, as in (7).

(7) *Kitty and me* were to spend the day there ... (by the bye, Mrs. *Forster and me* are such friends!)  
(Austen, *Pride & Prejudice* II 16)

Pronouns on their own are marked as nominative: *I, she, he, they, we*; coordinated and modified phrasal pronouns show accusative/oblique Case: *me, her, him, them, us*. The latter are in topic position. One could therefore argue that there are no nominative and accusative forms, just heads and phrases. Quinn (2005) surveys the distribution of morphological Case on pronouns and notes that “case considerations still influence the distribution of pronoun forms ... However, ... this case influence is weakened by a trend towards invariant strong forms” (p. 2).

English has examples where the nominative pronoun is repeated because this nominative subject is preferably adjoined to the head in T when possible, as in (8) to (10). Sentence (8) is from a piece of creative writing, (9) is spoken, and (10) is from a sports TV broadcast.

(8) She’s very good, though *I perhaps I* shouldn’t say so.  
(BNC HDC)
（9） if I had seen her, er prints I **maybe I** would of approached this erm differently. （BNC F71）

（10） **I actually I** d like to see that again. （BNC - HMN 901）

The same occurs with second person, as in （11） to （13），and infrequently with third （in the BNC），as in （14）.

（11） then it does give **you maybe you** know a few problems. （BNC - J3Y 72）

（12） **You maybe you** ’ve done it but have forgotten. （BNC - FUH 1047）

（13） Erm **you actually you** know you don’t have to say I’m . （BNC - JYM 79）

（14） Erm **he perhaps he** remembered who he was talking to and what it was all about. （BNC - JYM 1176）

Subject pronouns are not repeated after VP adverbs such as *quickly*, at least in the BNC, as we would expect if pronouns are in the T position.

（15） a. %I quickly I ...

b. %I completely I ...

Answers to questions such as （16a） are typically （16b） and not （16c），as mentioned in Siewierska （2004: 17）.

（16） a. Who did this?

b. I did.

c. *I.

Another sign that nominative pronouns are becoming agreement is that there is a frequent emphatic in English. It is in the accusative/oblique form of the pronoun, *me* in （17ab），occupying a topicalized position.
Language Change as Cyclical: A Window on the Language Faculty

(17) a. Me, I’ve been a night person longer than I can remember.
   (BNC - GVL 335)
b. Me, I was flying economy, but the plane, … was guzzling gas.
   (BNC - H0M 36)

In English, the emphatic is most acceptable with first person, as in (17), and second person, as in (18). With third person or an indefinite, it is unattested, as (19) to (21) indicate. This shows that first and second person start the change.

(18) You, you didn’t know she was er here. (BNC - KC3 3064)
(19) %Him, he …. (not attested in the BNC)
(20) %Her, she shouldn’t do that. (not attested in the BNC)
(21) %As for a …, it …. (not attested in the BNC)

If the subject is being reanalyzed as agreement, what happens when the auxiliary inverts in questions, i.e. when it moves to C? There are a number of varieties of English where this movement does not take place, e.g. (22) from African American Vernacular English (AAVE), as in Green (1998: 98-99), and (23) from Cajun Vernacular English (CVE), as in Winters (2008).

(22) a. *What I’m go’n do?* AAVE
   ‘What am I going to do?’
b. *How she’s doing?* AAVE
   ‘How is she doing?’
(23) a. *When you can visit me?* CVE
   ‘When do you want to visit me?’
b. *Which books you can loan me?* CVE
   ‘Which books can you loan me?’
c. *Who they shouldn’t talk to?* CVE
   ‘Who shouldn’t they talk to?’
This pattern, where pronouns do not invert, also occurs in relatively Standard English with first and second person. So, though third person pronouns and full nouns occur on their own when the modal moves to C, as in (24) to (26), first and second person do not appear this way in corpora searches, as indicated by (27).

(24) What else could possibly he be?
(25) Might possibly the human race now achieve its broader destiny?
   (http://my.athenet.net/~dickorr/Sovran’s_Eye1.html).
(26) Could possibly the third set numbers stand for letters, characters, rather than words? (http://forums.steinitzpuzzlers.com)
(27) % might/could/will possibly I (not attested on a Google search or on the BNC)

This shows that the third person pronoun is more syntactically independent than first and second person pronouns, i.e. it occupies a specifier position.

2.2. Accounts

In Givón’s (1976) account, topicalized nominals turn into subjects. This is sometimes called the NP-detachment hypothesis: agreement markers develop from resumptive pronouns in topicalized constructions, such as (28a). The topic is then reanalyzed as subject, as in (28b).

(28) a. That man, he shouldn’t be ...
   ↓
   b. That man he-shouldn’t be ...
Ariel (2000: 211) and Fuß (2005: 9-10), among others, argue against Givón’s account. Fuß suggests that Givón would predict the changes starting in the third person, which is not the case. Ariel examines the stages in Hebrew and argues that they do not show a lot of topicalized nominals. She also cites evidence from Celtic, Swahili, and Australian languages where pronouns and agreement are in complementary distribution, which one wouldn’t expect in Givón’s account.

Ariel (2000) argues for an Accessibility Theory. A (simplified) Accessibility Hierarchy is provided in (29): agreement and pronouns represent different points on a continuum of accessibility marking. A speaker chooses between these on the basis of the mental accessibility of what is referred to.

(29) zero < poor agreement < rich agreement < clitics < unstressed pronouns < stressed pronouns < demonstratives < full name
     (part of the accessibility scale, Ariel 2000: 205)

Ariel suggests that first and second person can be marked less and third person is not often marked as highly accessible. This need to be additionally marked also explains the use of demonstratives for third persons, a more marked form for a less accessible person, and the use of topic drop for (highly accessible) first person in English (Hope to see you soon). She concludes that “first and second person referents are consistently highly accessible, but third person referents are only extremely accessible when they happen to be the continuing discourse topic(s)” (Ariel 2000: 221). There are, of course, counterexamples from languages that have third person agreement but not first or second. Ariel mentions English third person singular present marking. In English, first and second person pronouns were historically used as subjects before third person ones (van Gelderen 2000: chapter 3). The same is true of German (van Gelderen 2000: 136; Axel 2005).

Poletto’s explanation of the person hierarchy involves feature checking: if the verb has too many features to check, it is saturated and a clitic “is a sort
of substitute for a verb” (2000: 147). Poletto’s model explains the hierarchy in (29): the element on the left has the most features (number, person, case, and, in some languages, gender). Poletto argues that rather than using the entire Determiner Phrase (DP) to check all the features in separate functional categories, the clitics or agreement markers do this more economically. She claims that pronoun doubling is more frequent with those elements that have more functional information and that the number of features to be checked causes the doubling. She explains the Definiteness Hierarchy by a universal order of checking domains: first and second below third, below plural, etc. I will also use features, but argue something different.

Elsewhere (van Gelderen 2008), I have claimed that there is a cognitive principle, Feature Economy, assisting the acquisition process and that DPs and other elements are reanalyzed with fewer semantic features. Acquisition of lexical items stores features in the lexicon. Within Minimalism, there are several kinds of features: (pro)nouns have interpretable person features because person is something inherent to them whereas verbs need to ‘receive’ person features from a nominal. The person and number features on the verb are uninterpretable because they are not relevant to the meaning, only to keeping the computation going. What goes on in grammaticalization is that learners and speakers change the feature composition of a lexical item, as in e.g. (30).

(30) The cycle of person (and number) features  
    noun > emphatic subject > pronoun > agreement > zero  
    [semantic]     [interpretable]     [uninterpretable]

The consistent order in which certain interpretable features are reanalyzed as uninterpretable needs to be explained. Why does the change from full pronoun to agreement start with first person? I suggest (contra Déchaine & Wiltschko 2002) that first and second person pronouns in English are pure phi-features (person and number) whereas third person pronouns have additional deictic features and are therefore not incorporated as easily.
The explanation of the subject cycle is that lexical items are taken out of the lexicon as bundles of features and that economy principles guide the speaker to take them with fewer features. However, once a lexical item has only uninterpretable features, it will need to be renewed; hence, there is a cycle. A longer account of this can be found in van Gelderen (forthcoming, chapter 2).

3. The Demonstrative Cycle

Demonstratives are involved in cyclical changes by becoming articles and later class or Case markers (cf. Greenberg 1978 and Lyons 1999). This involves the grammaticalization of deictic features. For instance, the Old English masculine demonstrative pronoun *se* develops into the definite article *the* through a loss of deictic features. When the demonstrative is renewed, it is often done so through a locative adverb, as in English with the adverb *there/here* (cf. Brugè 1996).

The changes from demonstrative to article can easily be expressed using a Determiner Phrase (DP), where the demonstrative is in the specifier position (possibly having moved there) and the article is the head. The structural changes involved in the cycle are from specifier to head to affix of the DP, not surprising given changes described in (1). As in section 2, I will put these changes in terms of Feature Economy: semantic features are reanalyzed as interpretable and then uninterpretable features. The cycle involves changes both in syntactic position, feature content, and semantic function; I focus on the former two.

The definiteness cycle can be represented as in (31). Using a DP structure, (31a) translates into (31b). The specifier becomes a head which subsequently disappears and is replaced by a new specifier. In (31c), the changes involving the features are listed in a way similar to those in (30).

\[(31)\]
\[
\begin{align*}
\text{a.} & \quad \text{demonstrative} \quad \rightarrow \quad \text{definite article} \quad \rightarrow \quad \text{Case/non-generic} \\
\text{b.} & \quad \text{specifier} \quad \rightarrow \quad \text{head} \quad \rightarrow \quad \text{affix} \\
\text{c.} & \quad \text{iF} \quad \rightarrow \quad \text{uF} \quad \rightarrow \quad (\text{uF})^2
\end{align*}
\]
There are many thoughts on how the demonstrative pronoun in English was reanalyzed as an article. In Old English, there are no articles but there are demonstratives, such as *da* before *æþelingas* in (32). This demonstrative refers back to an earlier *peod cyninga* ‘kings.’

(32) *hu da æþelingas ellen fremedon*
how those-NOM.PL nobles-NOM.PL courage did
‘how those nobles performed heroic acts.’ (*Beowulf* 3)

Adjectives can be weak (definite) or strong (indefinite) with the weak ones in pre- or post-nominal position or on their own, as in (33), and the strong ones in either pre- or post-nominal position, as in (34), with (originally) indefinite or definite meaning. The situation is quite complex in Old English, as e.g. Mitchell (1985: 51-80) shows.

(33) *Ic þæm godan sceal for his medþæcele madmas beodan.*
I (to) the good-W (one) shall for his daring precious-things give
‘I’ll give treasures to the good one for his daring acts.’ (*Beowulf* 384-385)

(34) *þæt wæs god cyning.*
‘that was a good-S king.’ (*Beowulf* 11)

In (33), *þæm* is in the specifier of the DP with interpretable features, and in (34), the adjective (or noun) moves to D, and checks the features.

Demonstratives occur together with possessives, as in (35). This shows the demonstrative is not yet article-like.

(35) *Se heora cyning ongan da singan 7 giddian*
Old English the their king began then to sing
‘Their king began to sing.’ (*Orosius Bately* 35.14-15)

Table 1 shows the different distal forms. The masculine nominative *se* is the
form that is reanalyzed as *the* and the neuter *æt* is reanalyzed as the singular distal demonstrative *that*. Both of these changes occur first in the north (according to the OED). In addition, the plural *æ* ends up as *those*. Rupp (2008) and others have argued that *æt* is the precursor of the reduced article *t*. This could be the case and, towards the end of the section, I argue that the present-day demonstrative *that* is grammaticalizing again.

<table>
<thead>
<tr>
<th>Table 1. Demonstratives in Old English</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Nom</td>
</tr>
<tr>
<td>Gen</td>
</tr>
<tr>
<td>Dat</td>
</tr>
<tr>
<td>Acc</td>
</tr>
</tbody>
</table>

It is hard to determine when the article first appears in English. In the northern *Lindisfarne Gospels*, there is a nominative masculine *ðe/pe*, as in (36), but this may be a variant of *se*, since it is a nominative.

(36) *Herodes*        *ðe*        *cynig*
Herod        the-NOM        king
‘King Herod’ (*Lindisfarne Gosp. Matthew ii. 3*)

Mitchell (1985: 102) mentions an accusative *pe* and Wood (2003: 69-71) suggests two additional Old English ones (one from Bede’s *Ecclesiastical History* and one from *Appolonius of Tyre*). Generally, however, it is thought that the demonstratives are weakening phonologically by late Old English. The *OED* gives examples from the *Peterborough Chronicle* and the *Ormulum* as the first. In the late Old English (37), there is a *pe* instead of *æs* and in the early Middle English (38), *pe* is very frequent.

(37) *Ic Wulfere gife to dæi Sancte Petre 7 þone abbode Saxulf 7 þa munecas of þe mynstre þas landes 7 þas wateres.*
'I Wulfhere give today St Peter and the abbot Saxulf and the monks of the abbey the lands and the waters.' \textit{(Peterborough Chronicle} anno 656:40, Thorpe edition)\textit{)}

(38) \textit{& gaddress st} \textit{swa be clene corn All fra be chaff togedd dre}
and gather-2S so the clean wheat all from the chaff together
`and so you gather the clear wheat from the chaff.' \textit{(Ormulum 1485, Holt edition)}

In (37), the demonstrative forms do not show the forms expected either, e.g. the accusative \textit{pone} should be the dative \textit{pæm} according to Table 1.

Traugott (1992: 173) argues that \textit{se} in (39) is a demonstrative that is used as third person \textit{`he'} with more topic shifting possibilities than the (regular) pronoun \textit{he}.

(39) \textit{Hi habbad mid him awyriedne engel, mancynnes feond, and se hæfd andweald...}

'\textit{They have with them corrupt angel, mankind's enemy, and he [the angel] has power over...}' \textit{(Ælfric, Homilies ii.488.14, from Traugott 1992: 171)}

I agree with this scenario: the pronoun \textit{(he, heo, etc)}, lacking clearly deictic features, can be used as a reflexive and is syntactically a clitic.

When, as argued in this section, \textit{se} reanalyzes as an article, schematized in (40a), it loses interpretable features. However, there are other shifts in the pronominal system. These other changes are presented in (40b). The Old English third person pronouns show an initial \textit{h-}, but are very variable \textit{(hi can be singular and plural, etc.)} and change in the late Old English period. Thus, a new third person feminine singular pronoun \textit{she} and third person plural \textit{they} appear first in the same texts as the articles first appear in. The \textit{OED} has the first instance of \textit{she} in the text that has the first clear articles, namely in (37), and \textit{they} first appears in the same text as (38) does.
(40)

<table>
<thead>
<tr>
<th>Old English</th>
<th>Middle English</th>
</tr>
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<tbody>
<tr>
<td>a. se</td>
<td>the</td>
</tr>
<tr>
<td>[i-loc]/[i-phi]</td>
<td>[u-T]/[u-phi]</td>
</tr>
<tr>
<td>b. he/hi</td>
<td>he</td>
</tr>
<tr>
<td>heo/ha</td>
<td>she</td>
</tr>
<tr>
<td>hi/hie</td>
<td>they</td>
</tr>
<tr>
<td>[i-phi]</td>
<td>[i-phi]/[i-loc]</td>
</tr>
</tbody>
</table>

The change represented in (40b) would go against feature economy. It is, however, often argued that both the shift towards a special feminine pronoun and a plural one were caused externally, through Scandinavian influence. The shift in (40b) is therefore not one where one lexical item gains features but one where a lexical item is replaced by another and causes a reorganization. These changes then enable the third person pronouns to shift topic and be more deictic.

The independent use of se in (39) stops, as Wood (2003: 69) also shows, and the third person pronoun loses its reflexive character. So when one of the demonstratives (the masculine singular) is reanalyzed as article, another (the neuter singular) is reanalyzed as the regular demonstrative. Replacing the independent demonstrative is the personal pronoun. Once the appears, it cannot be used independently and this is important in showing that it is in the head position: D on its own doesn’t license an empty noun, or to put it in terms of features, uninterpretable features (in the head D) need interpretable features on the N.

Three other stages of the cycle can be found in the history of English, namely further reduction of the to t(h)’ (and of that to t’ in certain dialects) in accordance with (1), the renewal of the demonstrative by a locative, and the frequent use of that instead of the in spoken English. I’ll start with the first.

In early Modern English, there is a stage with a definite clitic, as in (41ab).
（41）a. Morret’s brother came out of Scoteland for th’ acceptacion of the peax.
（The Diary of Edward VI, Nichols 1963 edition: 265）
b. There’s a Letter for you Sir:
   It comes from th’ Ambassadours that was bound for England.
   （The Diary of Edward VI, Nichols 1963 edition: 265）

These do not just occur before nouns that start in vowels, as （41） and （42） show, from Shakespeare’s First Folio. The examples in （41） are before the consonant /b/ and the ones in （42） before /f/, but there are many more.

（41）a. Turne all to th’ best: these Proclamations （Winter’s Tale III, I 15）
b. on certaine Speeches vitter’d By th’ Bishop of ... （Henry 8 II, iv, 171）
（42）a. To th’ fairenesse of my power. （Coriolanus I, 9, 72）
b. Expos’d this Paragon to th’ fearefull vsage （Winter’s Tale V, I, 153）

One would expect the Early Modern English stage to experience renewal, and we see quite a number of pronouns such as them being used as demonstratives, as in （43）. According to the OED, this occurs from the 16th century on. From the 18th century on, we find （44） and （45）.

（43）To Samaria and them partes. （1596 H. Clapham, Bible Hist. 92, from the OED, s.v. them）
（44）On leaving yours and Mr. B.’s hospitable House, because of that there Affair. （1742 Richardson, Pamela III. 404, from the OED, s.v. there）
（45）As for staying with them there French rascals, it was never the near. （1811 Ora & Juliet IV. 93）
Standard English never develops into a stage where the article is weakened and needs a new reinforcement, but many contemporary dialects continue the pattern of (43) with just ‘t’ or ‘th’, e.g. the fictional (46) and (47).

(46) “‘T’ maister nobbut just buried, and Sabbath no o’ered, und ‘t’ sound o’ ‘t’ gospel still i’ yer lugs, and ye darr be laiking! Shame on ye! Sit ye down, ill childer; there’s good books eneugh if ye’ll read ‘em. Sit ye down, and think o’ yer sowls!” (Emily Brontë, *Wuthering Heights*, chapter 3).

(47) “Ah’m gettin’ th’ coops ready for th’ young bods’,” he said, in broad vernacular.

(D.H. Lawrence, *Lady Chatterley’s Lover*, chapter 8)

We can put the list of changes in English in terms of changes to the structure, as in (48), namely a reanalysis of the demonstrative *that* as a head *the* and an incorporation of the postmodifying locative as a higher element:

(48)

```
  [DP [i-loc] that]
    [D D' [N N' [loc] there]]
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In terms of features, the change can be represented as follows. Once the demonstrative is reanalyzed as a head with uninterpretable features, it will look for a goal to value its features. The adverb can function this way and is in turn reanalyzed as more grammatical.

Apart from the reduction of the article *the* and the reinforcement of the demonstrative *that* by a locative, there is a third change in progress that can be seen by comparing written and spoken texts. In spoken texts, the demonstrative *that* is more frequent compared to the definite article; in
written, more formal texts, the article *the* is more frequent. This is of course directly relevant to the DP cycle: *the* is being replaced by *that*.

Early Modern English shows this tendency because, as mainly a written set of texts, it favors definite articles over demonstrative pronouns. Just looking at the Helsinki Corpus EMOD1-3 texts, minimal use of *that/those* is made compared to *the*. Some numbers are given in Table 2 for nouns immediately following these but there is no difference when an adjective intervenes.

Table 2. *That* and *the* followed by frequent nouns in the EMODE HC

<table>
<thead>
<tr>
<th></th>
<th>woman</th>
<th>man</th>
<th>child</th>
<th>king</th>
<th>building</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>the</em></td>
<td>45</td>
<td>61</td>
<td>119</td>
<td>192</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td><em>that</em></td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

The percentage of definite articles in the Helsinki Corpus EMOD1-3 texts —*the* comprises 4.98% of the total number of words—is very close to that of modern written texts. Academic texts are even higher, e.g. the current book has *the* at 5.25%. The percentage of the definite article *the* (as measured against all words in a text) varies enormously in English texts (and in French as we’ll see) but mainly between spoken and written genres. For instance, in a spoken formal corpus of Modern American English, *the* is used only once in a hundred words (1.1% to be precise).

Comparing *the* and *that* in the same texts results in very interesting differences. In the BNC 10 million word spoken part, the definite article appears 409,906 times (4.1%) and the demonstrative 147,335 times (1.5%). In the BNC 15.3 million word academic part, the definite article is much more frequent than the demonstrative. The article appears 1,129,235 times (7.4%) and the demonstrative 32,284 times (0.2%). The different numbers also appear in Table 3, with two more genres added.
Table 3. The article *the* and demonstrative *that* in the BNC

<table>
<thead>
<tr>
<th></th>
<th>spoken</th>
<th>fiction</th>
<th>newspaper</th>
<th>academic</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>the</em></td>
<td>409,960</td>
<td>836,836</td>
<td>644,043</td>
<td>1,129,235</td>
</tr>
<tr>
<td><em>that</em></td>
<td>147,335</td>
<td>78,129</td>
<td>19,501</td>
<td>32,284</td>
</tr>
<tr>
<td>total</td>
<td>10,000,000</td>
<td>15,900,000</td>
<td>10,500,000</td>
<td>15,300,000</td>
</tr>
</tbody>
</table>

Table 3 shows that in spoken English, *that* is more frequent and could be a sign of renewal of the [u-phi] in D, a change in progress.

It might be that the numbers of *that* are higher for spoken English because of the frequent independent use (i.e. without a noun). This is not the case, however: sequences of *that* and a noun or an adjective and noun are still much higher in the spoken. I have provided these numbers in Table 4, and have added the numbers of reinforcements with *there*. The latter, as expected, are much more frequent in spoken English.

Table 4. *That* and *there* in the BNC

<table>
<thead>
<tr>
<th></th>
<th>spoken</th>
<th>fiction</th>
<th>newspaper</th>
<th>academic</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>that</em> (A) N</td>
<td>26,470 (0.27)</td>
<td>23,718 (0.14)</td>
<td>7,148 (0.07)</td>
<td>16,330 (0.1)</td>
</tr>
<tr>
<td><em>that</em> (A) N <em>there</em></td>
<td>281</td>
<td>34</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>% with <em>there</em></td>
<td>1%</td>
<td>0.14%</td>
<td>0.03%</td>
<td>0%</td>
</tr>
</tbody>
</table>

In this subsection, I have reviewed some changes in the history of English concerning demonstratives pronouns. In the Old English period, there are no articles; they are the result of the grammaticalization of demonstratives in late Old English. I have also looked at reinforcements by adverbs and changes in the pronominal system.

4. Conclusion

In this article, I have described two cycles and have tried to account for them in terms of features. Looking at cycles points to patterns that have to be explained. If certain linguistic change is always in a certain direction, this tells us about the learner’s principles.
The pronoun to agreement cycle starts with first person subject pronouns that are reanalyzed as agreement markers. It has been shown for Modern French that this language is quite far advanced in this direction. I argue that Modern English first (and second) person pronouns are on their way as well. The demonstrative to article cycle has been described for Modern English. The demonstrative *se* is reanalyzed as a definite marker *the* in late Old English; in Modern spoken English the article *the* is being replaced by a demonstrative.

**ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNC</td>
<td>British National Corpus</td>
</tr>
<tr>
<td>HC</td>
<td>Helsinki Corpus</td>
</tr>
<tr>
<td>OED</td>
<td><em>The Oxford English Dictionary</em></td>
</tr>
</tbody>
</table>

**NOTES**

1. Many of these are taken from my forthcoming book *The Linguistic Cycle: Language Change and the Language Faculty*.
2. *F* represents a feature. In this case, I think the locative features of the demonstrative are reanalyzed as what is traditionally known as case features on the article. I won’t go into this here but see van Gelderen (forthcoming, chapter 5).
3. There are many other forms but I just give the most frequent ones.
4. I have been using Mark Davies’ interface with the BNC at http://corpus.byu.edu/bnc.

**REFERENCES**


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