THE COPULA CYCLE

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ABSTRACT: Like negative markers, copula verbs can be seen to undergo regular, unidirectional change or grammaticalization and renewal. I refer to this regular change as a cycle, following e.g. Hodge (1970) and Katz (1996). The sources of copulas include demonstratives, location verbs and verbs of change, and adpositions and adverbs (cf. Stassen 1997; Pustet 2003). In this paper, I examine demonstratives and (intransitive) verbs by looking at their features and their structure as they are reanalyzed. The demonstratives are reanalyzed to occupy the head of the PredP in accordance with principles seen in many other cycles and, since Chomsky (2013; 2014), accountable in terms of labeling resolutions. Copulas also often derive from intransitive verbs in a different development, because intransitives are often accompanied by other material and this may make them ambiguous in terms of argument structure. Interestingly, this reanalysis may present a labeling challenge, to be be pursued in future work.

KEYWORDS: aspect, copula, intransitive verb, labeling paradox, mood, semantic feature.

1. INTRODUCTION [*]

Copula verbs have many functions cross-linguistically, such as linking subjects with locational and adjectival predicates. The diversity of what copulas are sensitive to in their clausal environment involves permanent/non-permanent, location/identity, and realis/irrealis. Copulas are always grammaticalized forms that usually still have a more fully lexical counterpart in the same stage of the language. There is some debate as to what counts as a copula, e.g. Lyons (1977: 471) defines it as a "meaningless lexeme" and includes only the neutral 'be'. I will use a broader definition that includes copulas with shades of modal, e.g. 'seem', and aspectual, e.g. 'remain', meanings. Welsh (2012), based on the notion of subsumption in Jespersen (1924) and the notion of coincidence in Hale (1986), uses a coincidence model that catches a broad set, namely the semantic relation of

[*] Some of the examples and analysis in this article are taken from van Gelderen (2011a). The paper has benefitted a lot from comments by three anonymous reviewers. Glosses are given where needed. Abbreviations used are: BCE Before Common Era, CL Classifier, D Determiner, GEN Genitive, MED Middle English Dictionary, NOM Nominative, OED Oxford English Dictionary, Pred Predicate, PRT Particle, S Singular, and T Tense.

subsumption and I follow that.

The cycle has been explored by von der Gabelentz (1901), Hodge (1970), and more recently by van Gelderen (2011a). Von der Gabelentz stresses the morphological changes when he writes "affixes grind themselves down, disappear without a trace; their functions or similar ones, however, requir[ing] new expression" (1901: 256) and van Gelderen stresses that it is a round of linguistic changes taking place in a systematic manner and direction where a phrase or word or morpheme gradually disappears and is replaced by a new linguistic item. The aspects of the copula cycle that I discuss in this paper show demonstratives and intransitive verbs being reanalyzed as copulas, so one part of the copula cycle; the next stage would be for these new copulas to disappear (or become negative markers) and to be replaced again.

Li & Thompson (1977) are among the first to systematically examine changes involving copulas and Katz (1996) is one of the first to note its systematic nature and to discuss it as a cycle. Van Gelderen (2011a) incoporated the copula cycle into a generative framework, an early pre-print version of which Lohndal (2009) further developed. Copula cycles occur in many typologically and genetically different languages: Turkish, Uto-Aztecan, Chinese, Hebrew, Palestinian Arabic, Maltese, Kenya Luo, Lango, Logbara, Nuer, Wappo, West Greenlandic, and Creoles.

The structural representation of a copula most often involves a Pred(icate)Phrase, the head of which is involved in theta-marking of the Theme that bears the grammatical subject role (see Bowers 1993 and Baker 2003, for instance, who argues that the Pred makes the predicative function of nouns and adjectives possible). I will follow this and will formulate the changes from demonstratives to Pred as instances of Specifier to Head change (see van Gelderen 2004; 2011a; Lohndal 2009).

Current developments in the Minimalist Program (Moro 2000; Chomsky 2013; 2014) enable a formulation of the change from specifier to head as symmetry avoidance. The merge of a phrasal subject with a phrasal predicate, i.e. {XP, YP}, results in problems because the labeling algorithm at the interface level cannot find an unambiguous head/label through minimal search. These problems can be resolved by movement of the XP or YP (or by feature-sharing). There is another mechanism that could resolve labeling problems, namely the change from phrase to head where the XP in {XP, YP} is reanalyzed as X. This change would eliminate one of the offending phrases. One would therefore expect change towards the form {X, YP} to be common. This is in fact the case, as shown in van Gelderen (2004: 2011), Jäger (2005; 2010), Weiß (2007), Willis (2007), Bayer & Brandner (2008), Bácskai-Atkári & Dekány (2014), and other work.

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In this paper, I examine some sources of copulas and the cyclical changes they go through. One aim is to come to a deeper understanding of which semantic features are involved and which may be universal; another is to understand the structural conditions needed for the demonstrative and the intransitive verb to reanalyze. In section 2, I discuss some examples of (partial) cycles involving demonstratives and propose the reanalysis takes place as a result of a labeling algorithm (as in Chomsky 2013; 2014). In sections 3 and 4, I examine other main source of copulas, namely verbs. Section 3 focuses on copulas with aspectual meanings and section 4 those with modal meanings. The verbal reanalysis is mainly due to an ambiguous structure. Sections 5 provides a brief conclusion.

2.   DEMONSTRATIVE COPULA CYCLES

Copula verbs appear in many shapes cross-linguistically, as Stassen (1997) and Pustet (2003) have shown, among others. They can be overt or optional, fully inflected or invariable, and mark aspect or mood. Each copula can be seen to be in a different stage of the cycle. At one stage of the cycle, the copula is, for instance, a verb and, in another stage, this verb may weaken phonologically or pragmatically to end up cliticized or affixed, e.g. to a negative marker. The next stage is for a newer form to appear. In this section, I discuss one stage of this cycle, namely demonstratives that are reanalyzed as copulas, and provide an account of it.

Many have examined the origin of the copula in Mandarin Chinese. For instance, Wang (1958) argues that Ancient Chinese has no copulas, Li & Thompson (1977) see the copula as developing from the demonstrative *shi*, and Peyraube & Wiebusch (1994) provide data for various copulas.

In an early period (before 200 BCE), there are no copulas, according to Wang (1958) [1], and *shi* 'this' typically functions as a demonstrative in *shi ri* 'this day.' *Shi* still has this function in very formal contexts, as in Modern Chinese (1). In old Chinese, *shi* also functions as a resumptive pronoun with an empty copula, as in (2), from Old Chinese.

(1)   jiang   **shi**   xiang   jing-fei jibo   ben   suo
        will   D   CL   funding-transfer D   organization
        'He will transfer these funds to our organization.'
        (Academia Sinica Balanced Corpus of Modern Chinese;
        Hui-Ling Yang p.c.)
(2)   fu   yu   gui   **shi**   ren   zhi   suo   yu   ye

Riches and honor this men GEN NOM desire PRT
'Riches and honor, this is men's desire.'
(Peyraube & Wiebusch 1994: 393)

In (2), it is difficult to determine whether *shi* is a copula or a demonstrative subject. However, examples such as (3) are unambiguous since doubling occurs; in Modern Chinese, this would be rendered as (4) with a demonstrative *zhe*.

(3)   ***Shi   shi   lie   gui***   Old Chinese
       this   is   violent   ghost
       'This is a violent ghost.' (Peyraube & Wiebusch 1994: 398)
(4)   ***Zhe   shi   lie   gui***   Mandarin Chinese
       'This is a violent ghost.' (Mei Ching Ho p.c.)

According to Peyraube & Wiebusch (1994: 398), the earliest clear examples like (3) date from 180 BCE. Thus, by this time, *shi* functions both as demonstrative and copula. The next stage is for the demonstrative function to disappear and to be replaced by *zhe*.

The demonstrative function of *shi* is (mainly) lost in modern Mandarin Chinese, but the copula function remains. It indicates identity (location, possession, and existence are expressed in different ways). It is also often used as a cleft or in a presentational construction, as in (5) and (6).

(5)   ***Shi   wo   de   zuo***   Mandarin Chinese
       be   1S   PRT   fault
       'It's is me (who is) at fault.' (Hui-Ling Yang, p.c.)
(6)   ***Shi   wo***   Mandarin Chinese
       be   1S
       'It's me.' (Hui-Ling Yang, p.c.)

Particularly interesting (Hui-Ling Yang, p.c.) is the fact that *shi* is not restricted to a particular tense or aspect, as (7) shows.

(7)   Lili   yiqian   shi   gui
       Lily   before   SHI   ghost
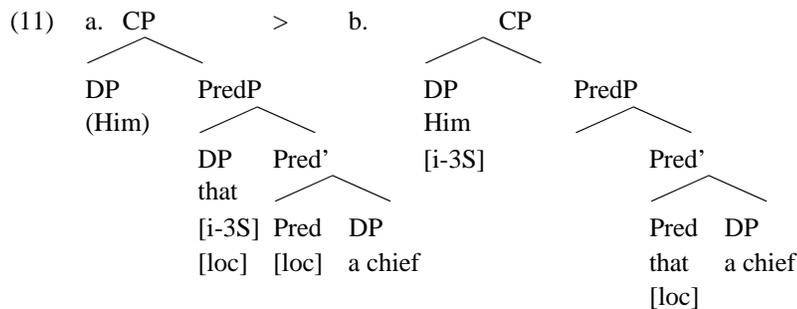   'Lily was a ghost before.'(Hui-Ling Yang, p.c.)

Summarizing the situation in Chinese, this language has seen a reanalysis of the demonstrative *shi* as copula of identity: since the features of the demonstrative are similar to those of the copula, this reanalysis was possible, as in (8). The demonstrative *shi* itself is still used, e.g. in (1), but the sources of demonstrative renewal come from demonstratives such as *zhe* in (4).

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(8)	D	>	Pred
	shi		shi
semantic	[proximate]		[identity]
formal	[i-3S] [2]		

Locative *there* and distal *that* are also frequently involved in copula cycles. The former is typical with locatives and the latter for identity, as in (9) and (10) respectively, both from Saramaccan. Older stages of the creole are not supposed to have had a copula; the locative and distal uses of the demonstrative haven't disappeared yet though.

(9) *Dí wómi **dɛ** a wósu*
    the man is at house
    `The man is at home.' (McWhorter 1997: 88)

(10) *Hɛn **dà** dí Gaamá*
    he is the chief
    'He's the chief.' (McWhorter 1997: 98)

Structurally, the demonstrative to copula cycle, both in Chinese and Saramaccan, shows a reanalysis from the Specifier of the PredP to the head, as in (11) (see Lohndal 2009) and a loss of features of Pred.

(11) a. CP > b. CP

    DP PredP DP PredP
    (Him) Him
      DP Pred' [i-3S] Pred'
      that
      [i-3S] Pred DP Pred DP
      [loc] [loc] a chief that a chief
   [loc]

The result is a copula with a particular flavor, i.e. identity or location, but unspecified for tense or aspect or mood.

    This change is in accordance with a number of other reanalyses in a great many languages and can be accounted for if a structure such as that in (12), a basic copular construction, is unstable, as argued in Chomsky (2013;

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[2] Features that have i- are interpretable and those with u- are uninterpretable, as in Chomsky (1995). Nothing much hinges on this in this paper. Diachronically, features are reanalyzed from semantic to interpretable to uninterpretable (see van Gelderen 2011a).

2014). The problem in (12) is that the labeling algoritm doesn't know whether to label the topmost as headed by D or by Pred.

(12)

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              ??
          /        \
      DP            Pred'
    /    \         /     \
  D       NP    Pred      DP
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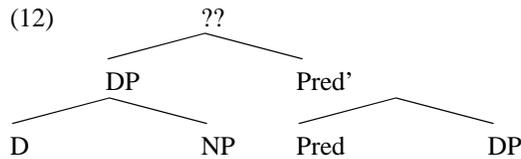
So, Chomsky argues that this structure cannot receive a label. Labeling is not part of Merge and is left to a requirement of the interface. The labeling algorithm, stated in (13), involves just a minimal search and "must take place at the phase level, as part of the Transfer operation" (Chomsky 2014: 4).

(13)   The Labeling Algorithm is "a special case of minimal search" seeking "heads H within its search domain" (Chomsky 2014: 4).

Chomsky allows structures in (12) if the heads of both phrases have matching features, as in the cases of *wh*-phrases in the CP. Such feature matching also occurs in (11a) because [loc] is shared. However, such sharing makes the structure ambiguous (to the language learner) and the demonstrative can therefore be reanalyzed as the head, as in (11b).

Chomsky solves the labeling paradox of copulas by having one of the maximal projections in (12) move, but the renalysis in (11) from phrase to head is another solution to the labeling paradox (see van Gelderen 2014 for other changes that can be accounted for in this way).

Having seen cyclical change involving copulas (a demonstrative is reanalyzed as copula and a new demonstrative appears), we turn to renewers of copulas other than pronominal forms.

3.   SOURCES OF COPULAS EXPRESSING ASPECT

Copula verbs derive from demonstratives, as we saw in the previous section for Chinese and Saramaccan, and this change has also happened in Old Egyptian and Arabic. These copulas are typically specialized to express identity or location. In this section, I show another frequent source, namely verbs, throughout the history of English. These verbs are specialized to mark aspectual and modal shades of meaning and arise through a loss in their argument structures. In this section, I'll trace some of the changes from the intransitive verb *remain* to copula and then I will develop an explanation

based on Visser's (1946; 1963) insights. Again, these changes consitute small steps in the copula cycle.

The verb *remain* is borrowed into English from French in the 14th century. Its meaning in Latin is 'stay behind'. The first instance that the OED provides is given in (14a), with a meaning of 'continue to belong, stay with'. The first instances given in the MED are from 1425, as in (14b), and also have the 'stay behind' meaning.

(14)   a.   *To the part of this endenture **remaynand** to the forsaid Alexander.*
               'To the part of this agreement remaining to Alexander, mentioned before.' (OED, 1388, Robertson Illustr. Topogr. & Antiq. Aberdeen & Banff III. 295)
    b.   *Onely oo cow she hadde a-lyue **remaynyng** of that pestilence.*
               'Only one cow she had alive remaining of the plague.'
               (MED, 1425, Found.St.Barth. 60/15)

The first instance of *remain* as a copula is hard to give. Visser (1946) points to the use of *remain* in Thomas More's Works and there are indeed quite a few, as shown in (15a) with an adjective and with a PP in (15b). These date from 1513.

(15)   a.   Where **remained behynd**, the Lorde Ryuers ...
               `Where remaining behind, Lord Rivers ...
               (*Richard III*, http://www.luminarium.org/renascence-editions/r3.html)
    b.   those lordes of her honorable kinne, which as yet **remained vnder arrest** should vpon the matter examined, do wel ynough.
               `Those lords of her honorable family, who as yet remain under arrest, should do well enough upon the matter being examined.'
               (*Richard III*, idem).

The features involved in this change show a typical loss of specificity, as in (16). The [u-Th] indicates that *remain* needs a Theme theta-role, both as intransitive and as copula. This theme theta-role accounts for the fact that only unaccusatives are reanalyzed as copulas.

(16)   V (intransitive)   >   Pred (copula)
        remain   *remain*
        [location]   [i-durative]
        [duration]   [u-Th]
        [u-Th]

Having provided some examples of intransitive uses of *remain* and then of copula uses, I now turn a scenario provided by Visser (1963: 195) on how

the intransitive structurally reanalyzes into a copula. In the intransitive use, Visser notes, there is often an apposition, as with *prisoners* in (17). The intended meaning is that `they remained' with a secondary predicate telling us how/what they remained, namely 'prisoners'. This nominal is not clearly separate from the rest of the sentence and hence reanalyzable as the complement to the copula.

(17)   *the Factour with the others did **remaine** prisoners*
          'the perpetrator with the others remained, prisoners.'
          (Visser 1963: 195, Lichefield translation, 1582)

Since *remain* is often used in the conclusion of letters, a name would be following it as well, again reanalyzable. This may very well be true although, if we look at actual examples, this use is infrequent. For instance, the *Paston Letters* have 36 instances of a form of *remayn* but none of these have a name following; see (18) for a more typical one from the year 1461.

(18)   *I am yor bedman and so shall **remayn** be the grace of God all the days of myn liff*
          'I am your servant and so shall remain (I) by the grace of God, for all the days of my life.' (Visser 1963: 195, Gairdner's edition II p. 66)

However, (18) in its own right is ambiguous as to whether what follows is a primary or secondary predicate. This allows a reanalysis.
        If intransitives are followed by an adjective, the adjective is ambiguous between modifying the (intransitive) verb or the subject nominal: "[t]he use of adjectives as predicative adjuncts is as old as the English language" (Visser 1963: 183). Visser (1946: 65) notes that, even in the 16th century, certain adjectives could be used as adjective or adverb. Sentence (19) is such an ambiguous case.

(19)   Since which she was removed to Kimbolton, Where she **remains** now sick.
          `Since when she was removed to Kimbolton, where she now remains, sick.'
          (Visser 1963: 195, Shakespeare, Henry VIII, 4.1)

Once adjectives lose their endings, it becomes harder though not impossible to construe them as an adjunct to the subject. Modern English (20ab) are no longer ambiguous in their prescriptive senses but many speakers have trouble deciding whether or not to put an *–ly* in (21ab) or not.
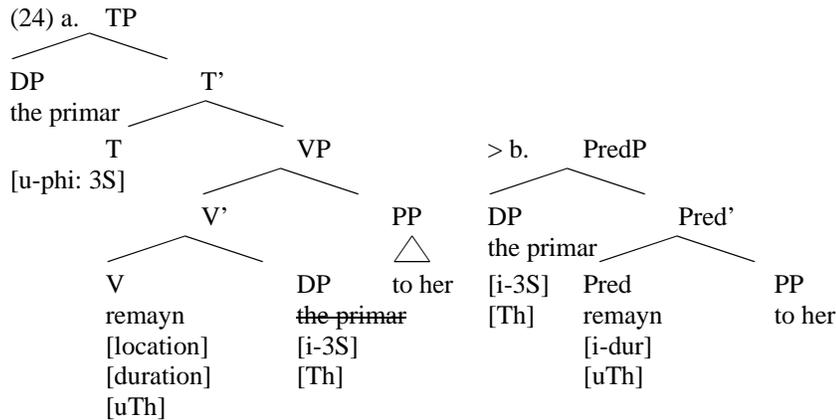
(20)   a.   They died happy.
          b.   She returned rich.
(21)   a.   Does the clutch feel any different/differently?
          b.   Do not go gentle/gently into that good night.

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A similar ambiguity of analysis between an intransitive with an adverbial PP and a copula with a modifying PP occurs in many stages of the language. Thus, *lives* in (22a) could be either intransitive or copula, as opposed to *is* in (22b) which can only be a copula.

(22) a. She lives in Italy.
      b. She is in Italy.

The reanalysis of intransitives as copulas is to be expected because intransitives rarely remain without some kind of adverbial. The structural changes needed for reanalyzing *remain* in (23) from intransitive to copula are given in (24). So the unaccusative verb in the VP is reanalyzed as a copula verb in the PredP but the rest remains the same.

(23) the great primar, whiche before daies I gave to my wif, **remayn** styll to her.
      `The great primer which I had given to my wife will remain with her.'
      (OED, 1513 *Will of Robert Fabyan* in R. Fabyan *New Chron. Eng.* (1811) Pref. p. vii)

(24) a. TP

DP   T'
the primar

    T   VP   > b.   PredP
[u-phi: 3S]

        V'   PP   DP   Pred'
                          the primar

    V   DP   to her [i-3S] Pred   PP
    remayn the primar   [Th]   remayn   to her
    [location] [i-3S]   [i-dur]
    [duration] [Th]   [uTh]
    [uTh]

A contributing factor to the reanalysis may be that intransitives are unstable after the derivational morphology (e.g. transitivizing affixes *ge-* and *–i*) disappears at the end of Old English. There are two ways to `rectify' this situation: increase the transitivity (cf. van Gelderen 2011b) or decrease it, as in (24b). The change of an intransitive to a copula is exemplified by verbs such as *remain* (and *stay*) that retain some of their original characteristics in that they are aspectual copulas.

4.   SOURCES OF COPULAS EXPRESSING MOOD

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I'll first look at the verb *to be* in Old English, show that it was specialized for mood in Old English and show what happens when this changes.

The Old English paradigm for the verb *to be* is given in Table 1.

		Indicative			Subjunctive		Imperative
Present	1	ic	eom		ic	sie/beo	
	2	þu	eart		þu	sie/beo	wes/beo
	3	he/o	is		he/o	sie/beo	
	PL	we/ge/hi	sint/sindon		we/ge/hi	sien/beon	wesaþ/beoþ
Past	1	ic	wæs	Past S	wære		
	2	þu	wære				
	3	he/o	wæs				
	PL	we/ge/hi	wæron	we/ge/hi	Past PL	wæren	
Future	1	ic	beom				
	2	þu	bist				
	3	he/o	biþ				
	PL	we/ge/hi	beoþ				
Participles		wesende/beonde/gebeon					

TABLE 1. THE OLD ENGLISH FORMS OF THE VERB *BEON* 'TO BE'

As is obvious from this table, the verb *to be* has a paradigm that is a combination of many different forms. According to the OED, and received wisdom, the *s*-forms may go back to an old demonstrative *sa (hence accounting for the third person restriction for *is*) and the *be*-forms to the reconstructed Indo-European intransitive *bheu `grow'. The *wes(ende)* goes back to the intransitive *wes `remain, dwell' and the passive *weorðan* (not shown in the table below) goes back to *wert 'turn'. Many of these verbs go back to old intransitives and keep some of the semantic peculiarities.

In Old English, as can be seen from Table 1, the *b*-forms are used for irrealis (some would say +/-future) mood and generic situations and the *eam/eart/is/sint* and *w*-forms are mainly used for the present and past indicative. This is true whether the *b*-form is used as main verb, copula, or auxiliary. The example in (25) shows a number of these forms.

(25)   *Nu **bið** swyðe raðe ante cristes tima. þæsðe we wenan*
          Now be very soon anti christ's time of.which we think
           *magan 7 eac georne witan. 7 þ **bið** se egeslicesta*
          may and also willingly know. and that is the most.awful
          *þe æfre **gewearð** syððan þeos woruld ærost gesceapen **wæs**.*
          that ever became since this world first created was.
'Very soon now, the time of the Antichrist will arrive which we think and know consciously about. It is the most awful time that ever will have been since the creation of the world.' (Wulfstan, Homily 42, Napier 1883)

This mood-based division has been examined by various people (Jost 1909, Biese 1952, Campbell 1959, Laing 2010, Wischer 2010, and Petré 2013), as has the change to the Middle English system where, according to Petré (2013: 303), the *b*-form is used for plural indicative, as (26) shows. For Petré, the reason for this change is the grammaticalization of *shall* as a future marker. Because the *b*-form is also used for generic statements that are in the plural, it is reanalyzed as a plural rather than an irrealis/generic marker.

(26)   *manige wise menn ðar wæron gegaderade.*   *ealle to smeagende*
           `many wise men were there gathered   all to ask
           embe Godes cyrcan bote.   *ða **beoð** innan Cent.*
           about God's church's compensation   that are in Kent.'
           (Anglo-Saxon Charters, http://deeds.library.utoronto.ca/charters/03692008, cf. Petré 2013: 318)

Currently, the paradigm shows a finite/non-finite split: *be, been, being* are the non-finite forms and the non-be ones are finite. I have formulated the changes as (27).

(27)   Germanic mood > OE mood > ME number > ModE finite

This marking of the mood in the paradigm may mean that separate mood marking copulas are less necessary. How do the changes in the mood system affect the inventory of copulas?

As I mention in the first paragraph of section 1, I take a broad view of the copula verb, namely as a linker between a subject and non-verbal predicate, which can retain modal and aspectual features. I am not alone in using such a broad definition. Curme (1935: 66-8), without giving a list, says there are 60 copulas in English and that "no other language shows such a vigorous growth of copulas" (67). Visser (1963: 213-9) lists over a 100 for the various stages, among them those in Tables 2 to 4, which I have recategorized slightly and given with their Old English main meanings (from Bosworth & Toller and Clark Hall). I have also added some of Visser's quasi-copulas; not listed is *be*.

Aspect		
durative:	(a/ge/þurh)wunian	'dwell, rest, be, exist'
	(ge)bidan	'abide, continue'
	belifan	'remain'
	licgan	'lie, be'
	sittan	'sit, be'
	gestandan	'stand, exist, be'
	warian	'remain'
inchoative:	come, (ge)weorðan, (ge)weaxan	'become'
mood	þyncan/ðuncan	'seem'

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TABLE 2: COPULAS IN OLD ENGLISH (from Visser 1963: 189ff)

aspect	
durative:	cliffian, (en)dure, dwell, hove, last, remain, rest, bego, begrow, run, make, hang, play, yawn
inchoative:	become, fall, go, grow, turn, wane, blow, blush, break, fly
mood	appear, (be)seem, prove, show, smell

TABLE 3:　　　ADDITIONAL COPULAS IN MIDDLE ENGLISH (from Visser)

aspect	
durative:	continue, hold, keep, persevere, persist, stay, wear
inchoative:	befall, commence, get, result, burst, flash, flush
mood	come (e.g. expensive), fall (e.g. flat), loom, turn out/up, feel, ring, sound, strike, taste

TABLE 4:　　　ADDITIONAL COPULAS IN EARLY MODERN ENGLISH
(from Visser)

Looking at the tables, we see a steady source of aspectual copulas in all stages of the language but a real increase in copulas marking mood in Middle and Early Modern English. I would say this is a reaction to the changes in (27), namely a loss of mood-marking in *be*.

In addition to *be*, in Old English, there is only one other such verb and that is *ðyncan* 'seem'. Checking the *Dictionary of Old English* for examples, we see that most of these verbs have experiencers, as in (28), but are definitely copulas. Visser (1963: 212) provides examples such as (29).

(28)　　*Hwelc　wite　　　　sceal　　us　　ðonne　to hefig ðyncan?*
　　　　which　punishment　shall　　us　　then　　too heavy seem
　　　　`Which punishment will then seem too heavy to us?'
　　　　(OED, Gregory Pastoral Care, Hatton xxxvi. 255)
(29)　　*Him þa seo mænigeo þurh gemæne word,*
　　　　him then the commoners through false word,
　　　　*arlease cyn, andswarode: þis **þinceð** gerisne*
　　　　honorless kind, answered　it seems　proper
　　　　and riht micel, þæt þu ðe aferige of þisse folcsceare.
　　　　and very right that you yourself take.away of this land
`The multitude of honorless people answered him: it seems very right that you leave this land.' (Dictionary of Old English, Genesis, Krapp 1931 edition)

In Middle English, the first intransitive to become a copula of mood is *appear* (Visser 214-5)[3]. This verb first comes into the language as the intransitive 'become visible, come forth, be clear', as in (30), and becomes a copula in the 14th century, as in (31). It is then often ambiguous, as in (32),

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[3] I ignore (*be)seem* since that is a continuation of the Old English.

in the same way as *remain*, whether the post verbal adjective or noun is the predicate or not.

(30)   ***Aperede** an ongel of heuene in here slepe.*
       `(There) appeared an angel from heaven in her sleep.'
       (OED, *c*1250 *Kent. Serm.* in *Old Eng. Misc.* 27)
(31)   *And the Lord siȝ, and it **apperide** yuel in hise iȝen.*
       'And the Lord saw and it appeared evil in his eyes.'
       (OED, *a*1425 *Wycliffite Bible* L.V. Royal Isa. lix. 15)
(32)   Our greatness will **appear** Then most conspicuous.
       `Our greatness will appear most conspicuously then.'
       (OED, 1667 Milton *Paradise Lost* ii. 257)

The features that are relevant in this change are shown in (33).Structurally, the changes can be represented as in (34).

(33)   V (intransitive)   >   Pred (copula)
       appear   *appear*
       [become visible]   [i-mood]
       [uTh]   [uTh]

(34)   a.   VP   >   b.   PredP

          V   PP   DP   Pred'
                             an ongel

V   DP/AP in here slepe   [i-3S]   Pred   PP
aperede   an ongel   [Th]   aperede

[become visible] [i-3S]   [i-mood] in here slepe
[uTh]   [Th]   [uTh]

Note, however, that from a labeling perspective, both (24b) and (34b) are problematic because the DP and the Pred' are maximal projections of the kind in (12). I will not discuss what feature-sharing licenses these because the system is not yet worked out (Chomsky 2013: 45). The structures will eventually lend themselves for reanalysis again.
      In conclusion, in Old English, there are two (main) modally flavored copulas, the *b-* forms of the verb *beon* and *þyncan/ðuncan* 'seem'. Because the *be*-paradigm undergoes a major shift, renewal is necessary and this comes in the form of French loans, such as *appear*.

5.   CONCLUSION

In this paper, I have looked at cyclical change involving copulas. They often develop from demonstratives in which case the demonstratives may themselves be renewed. The demonstratives are reanalyzed to occupy the head of the PredP in accordance with principles seen in many other cycles and, since Chomsky (2013; 2014), accountable in terms of labeling resolutions. Copulas of this type keep shades of locative or equative meaning, as in the Saramaccan (9) and (10).

Copulas also derive from intransitive verbs in a different development, because intransitives are often accompanied by other material and this may make them ambiguous in terms of argument structure. These copulas keep some of their original meanings as well, reanalyzed as mood or aspect features. Interestingly, this reanalysis may present a labeling challenge, to be be pursued in future work.

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