Chapter 15

The Negative Existential and other cycles: Jespersen, Givón, and the copula cycle

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Veselinova (2013) provides two sources for negative existential constructions: (a) the univerbation of a negative and a part of the existential construction, which needs not be verbal, and (b) the reanalysis of a lexical item with an appropriate, negative sense. I argue that this definition is both too narrow and too broad when examining the Negative Existential Cycle (NEC). Regarding (a), copulas and auxiliaries provide input to the NEC in addition to existentials, in e.g. Croft (1991), and regarding (b), verbs with a negative meaning are better seen as a separate development, as in Givón (1978). I will contend that copulas, auxiliaries, and existential verbs can all fuse with the negative and then disappear into the negative whereas negative verbs,such as *fail,* trade their semantic negative features into grammatical ones without fusion or loss. This paper will address three specific questions relevant to the NEC. The first is what are the source verbs in this cycle. A second question is whether or not the NEC is essentially a verbal cycle, in contrast to the nominal nature of the Jespersen Cycle (JC; Jespersen 1917). The third question involves the possible doubling of the negative, which is relevant to showing the NEC is different from the Jespersen Cycle. The role of verbal agreement and inflection sets apart the verbal cycles (NEC and the Givón Cycle) from the nominal one (JC) and the two verbal cycles are different in their renewal. The differences will be shown in their reanalyses in the last section.

1 Introduction

The Negative Existential Cycle (NEC) was so named by Croft (1991) and was added to greatly by e.g. Veselinova (2013, 2016). The basic cycle is given in Fig-

ure 1 and, by now, well-known: Type A involves standard negation and existential negation expressed by the same morpheme; Type B is (usually) where the negative has attached itself to the existential verb and is no longer the same as the standard negative; and Type C is where the Negative Existential of Type B is used for all negation, often with a null existential. Veselinova has argued for intermediate stages as well, which we'll see below. What is typical for the NEC
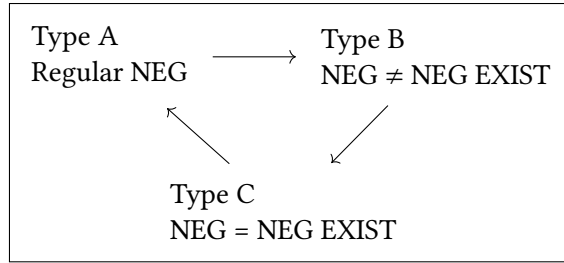

Figure 1: The NEC (Croft 1991)

is that the verb is renewed at the end of the cycle by a new existential or copula, in something that has been called the Copula Cycle (Katz 1996) where I take a copula in the broad sense as locative, equational, possessive, or existential. This copula can then again be the source to another NEC. Traditionally, two other negative cycles have been recognized, namely the Jespersen Cycle (JC) and the Givón Cycle. The Jespersen Cycle renews a negative with a minimizer or negative/indefinite quantifier while the Givón Cycle creates a new negative without co-occuring with another negative.

   As the name NEC suggests, most scholars from Croft (1991) on have argued that the input verbs to the NEC are existential ones although Croft gives examples of other verbs. Veselinova, in various work, only includes existential verbs and negative verbs but not copulas and auxiliaries. She argues that existential constructions (negative ones included) are special. They have non-referential subjects, frequent non-canonical verb and subject marking, etc. Locatives, copulas, and possessives do not fall under her definition of existential (Veselinova 2013: 108–11), unless the particular verb is the same. Later in the paper, she defines NECs as originating from either (a) a univerbation of a negative and a part of the existential, which need not be verbal, or (b) the "reanalysis of a lexical item with an appropriate sense" (136). The (a) part is the traditional NEC while the (b) part makes it possible to extend the NEC to the JC where a negative indefinite can be reanalyzed as standard negation and to cases included in the Givón Cycle. So, Veselinova's formulation of the sources of negative existentials incorporates

all negative cycles, NEC, JC, and the Givón Cycle but does not find auxiliaries and copulas as sources in her data. Veselinova (p.c.) herself doesn't see the JC as her focus but the quote in (b) makes it possible to do so.

In this paper, I will advocate for at least three negative cycles that interact with each other as well as with the Copula Cycle. In doing this, I address three questions surrounding this cycle: the sources of the verbs involved, the verbal nature of the cycle, and the issue of negative doubling. The methodology is not that of a typological article; my aim has been to take a broad look at the various negative cycles to discover what they have in common and how they differ.

The outline is as follows. In §2, I further discuss Veselinova's (2013) definition and look at a number of cases where a copula and auxiliary are also the source of what looks like a NEC. In §3, Givón's (1978) examples of inherently negative verbs are discussed. I think it is better for the latter to be seen as their own cycle, e.g. named Givón's Cycle. §3 also considers the verbal nature of the NEC and §4 whether or not doubling is ever uncontroversially present with the NEC. §5 provides the structural characteristics of the three negative cycles and §6 is a conclusion.

2 Auxiliary and copula sources

In this section, I examine which categories are input to the NEC. For instance, can copula and auxiliary verbs also be included as source verbs, in addition to existential verbs? Existential constructions display separate syntactic properties, e.g. the agreement is shared between the expletive and post-verbal subject, i.e. plural in (1).

(1)   There aren't any ghosts in the closet.

Croft (1991: 12), by mentioning Marathi *nahĩ* [NEG.be], for instance, keeps the door open for other verbs to be involved as well. In §2.1, I will use data from Urdu/Hindi where a similar negative is found as in Marathi to show that this indeed appears to involve a NEC. §2.2 and §2.3 show the same for English and Arabic. §2.4 provides data that are inconclusive about the origin of the negative existential.

2.1 Hindi/Urdu

Kellogg (1938) sees the development of the negative as going from the single *na* in Sanskrit (inherited from Indo-European) to a stage where *na* and *nehĩ* alternate to one where *nehĩ* is the main negative. In Kellogg's account, *-hĩ* is a remnant

of an auxiliary verb; simple *na* remains with non-indicatives and a prohibitive *mat* occurs with imperatives in the modern language. I have put the changes involving *na* and *nehĩ* in a table with the stages from Croft's Cycle. The last stage is one where a "double" auxiliary is appearing.

Table 1: The stages of the NEC from Sanskrit to Hindi/Urdu

Croft	Stage	Negative	
A	Sanskrit	*na*	
B	Early Hindi/Urdu	*na*	*na hĩ* [NEG + 'be']
C	Hindi/Urdu	*nehĩ* (marginal *na* and *mat*)	
C~A	change in Hindi/Urdu	*nehĩ*	*nehĩ* + *hona* 'be'

One piece of synchronic evidence that *nehĩ* is formed from *na* and an earlier inflected form of the verb/auxiliary *hona* 'to be' is that copulas and auxiliaries, i.e. typical uses of *hona* 'to be', are not necessary with *nehĩ*, as (2) and (3) show and are uncommon.

(2) Hindi/Urdu
   *mẽ student **nehĩ** (hũ)*
   I   student not   am
   'I am not a student.' (data checked with Sakshi Jain)

(3) *mẽ yehã kam   **nehĩ** karti (hũ)*
   I   here work not   do   am
   'I don't (generally) work here.' (data checked with Sakshi Jain)

Currently, the last stage of the cycle is reached and the copula and auxiliary are used again, as in (4).

(4) Hindi/Urdu
   *koi   bhi   Pakistani bharat me **nehĩ** rah raha   **hai***
   Any even Pakistani India   in NEG live PROGR is
   'No Pakistani is living in India.' (Lampp 2006: 17, her transliteration)

This "doubling" of the auxiliary verb (in stage C~A) would be expected, although, cross-linguistically, this stage is very rare.

Auxiliary verbs typically add tense, mood, aspect, or voice and accompany a lexical verb. They may agree with the subject and this is one of the reasons auxiliaries are less likely to be reanalyzed as negatives. Because they are inflected

in many languages, the forms will be many and that stops the reanalysis. So how was the reanalysis from stage A to B in Hindi/Urdu possible? Numerous scholars have argued there is a second source that may have helped the NEC along. Whitney (1889: 413), Turner (1966: 404), and Bashir (2006: 7), to name a few, have argued that *na* was strengthened with an emphatic *hĩ*, which is still around in the language. Since the paradigm of *hona* 'to be' shows many forms, *hũ, ho, hẽ* [1SG, 2SG, 3SG], etc, it may be that the presence of *hĩ* helped solidify the form *nehĩ*.

Different cycles compete and that is visible in a minimizer that is sporadically used as negative, e.g. the one identified by Gul (2009), namely *thoRi* 'little', as in (5). When *thoRi* is negative, emphatic particles like *si*, *hi*, and *tu* cannot follow it, as in (5b), according to Gul, and that is a way to distinguish the negative from its adverbial origin, possibly shedding doubt on the emphatic origin of −*hĩ* discussed above. This renewal by a minimizer is typical of the Jespersen Cycle.

(5)   Hindi/Urdu

   a.   *Usne **thoRi** bat ki.*
        he   NEG   talk did
        'He didn't talk.' (Gul 2009)

   b.   *wo BASHEER **Thori** Tha, wo Tou   PAPA The.*
        he Basheer   NEG   was he EMPH papa was
        'He wasn't Basheer, he really was daddy.'
        (mobiletextsms.blogspot.com/2011/08/wo-basheer-thori-tha.html)

The verb *hona* 'to be', according to Platts (1884), also means 'to exist, subsist, be born' and a variety of other meanings typical of existential verbs but in present-day Hindi/Urdu compounds like *mowjud hona* 'be present' or *rehna* 'to live' are used instead. Such renewal of verbs that participate in the NEC is expected.

In this section, I have shown that a copula and auxiliary can be the source but that verbal inflection might be hindering the reanalysis as negative. What probably made it possible to see *nehĩ* as a negative particle in Hindi/Urdu, also an inflected language, rather than as verb, is the independent existence of *hĩ* in the language. In the next section, I show how an inflected negative auxiliary can indeed lose the inflection.

2.2 English and Uralic

Hindi/Urdu shows a case where auxiliary and copula forms of *hona* 'to be' combine with the negative in a typical NEC. As mentioned, this is often difficult in

languages where verbs are inflected because one of the many forms of 'to be' will have to be chosen to fuse with the negative. In this section, I provide two instances where it did.

There are stages in the history of English and present-day varieties where the inflected forms *am not, are not, is not*, etc. are reduced to *ain't* which is then used as multipurpose negative copula and auxiliary, as in (6), for all persons.

(6)   a.   copula
           I **ain't** afeard o' nyther on you [COHA fiction 1828]

    b.   perfective auxiliary
           and when you **ain't** got any tanks [BNC spoken]

    c.   progressive auxiliary
           that we **ain't** gonna relet these [BNC spoken]

This *ain't* could in principle be reanalyzed as the negative but there is no evidence in British English that *ain't* is spreading as a standard negative, e.g. used with an inflected, finite verb, as in (7). This sentence probably has a meaning of 'I didn't see/haven't seen'.

(7)   I **ain't** see any because I were with Jacqueline weren't I? [BNC spoken]

Of the 1270 instances of *ain't* followed by a verb in the British National Corpus, no verbs are finite, but of the 4405 instances in COCA, there are fifty or so where *ain't* could be a negative particle preceding the finite verb, namely those in (8).

(8)   a.   When I came to this class, I **ain't know** nothing. [COCA spoken]

    b.   Nah, you **ain't want** trying to hit the coach in the face. [COCA fiction]

    c.   It **ain't have** any beer? [COCA fiction]

So, English copulas and auxiliaries could participate in a NEC when their inflection is neutralized as with *ain't*. For external reasons, *ain't* is stigmatized. The example from Uralic shows another case of an inflected auxiliary losing the markings of tense and agreement.

The origin of the negative auxiliary in Uralic "may well be related to the verb 'is' (*i-*)" (Simoncsics 1998: 594) and more precisely to a negative copula (Honti 1997: 173). That would mean the NEC occurred in earlier Uralic. We cannot be completely sure about this scenario but the present-day languages in the family show how the NEC proceeds: the negative auxiliary gradually loses inflection to end up a uninflected particle.

An example of an inflected negative auxiliary in the Uralic family appears in (9a). Other varieties of Saami have reduced inflection, as in (9b) and (9c), with the main verb picking up the tense.

(9)   a.   Southern Saami
      Idtj-im   (*manne*) *daejrie-h*
      NEG.PST-1SG (1SG)   know-CONNEG
      'I didn't know.' (Bergsland 1994: 44)

      b.   Skolt Saami
      (*mon*) ***jiõm***   *poor*
      (I)   1SG.NEG eat.PRS
      'I don't eat.' (Miestamo & Koponen 2015: 355–6)

      c.   Skolt Saami
      jiõm   *poor-râm*
      1SG.NEG eat-PST
      'I didn't eat.' (Miestamo & Koponen 2015: 355–6)

In Estonian and non-standard Finnish, the auxiliary has been reduced to a non-inflected particle *ei* for all negation, as in (10), and *ei* can be deleted if a negative adverb is present (see Honti 1997: 164).

(10)   Estonian
      *Maia **ei** laula*
      Maia NEG sing.CONNEG
      'Maia doesn't sing.' (Veselinova 2016: 151, data from Miina Norvik)

The variety among the languages of the Uralic family shows an auxiliary as source for a negative particle.

   This section has shown that inflection on a copula or auxiliary need not hinder reanalysis because it can get lost. I'll now turn to another example of a copula participating in the NEC.

2.3 Varieties of Arabic

So far, we looked at auxiliaries and copulas that are reanalyzed as negatives. Examples of verbs participating in the NEC that are only copulas occur as well. This should be frequent as long as the copula is not (very) inflected and that is true. One well-known example is from Arabic (Eid 1983, Katz 1996, Edwards 2006, Alsaeedi 2015). The sentences in (11) are from Egyptian Arabic but are grammatical in Modern Standard Arabic as well. The new copula agrees in number and gender because it was originally a demonstrative with number and gender features.

(11)   Egyptian Arabic

    a. *'ana **huwwa** l-mas'u:l*
       I   he   the-responsible
       'I am the responsible.' (Edwards 2006: 51)

    b. *il-mushkila   **hiyya** T-Talaba*
       the-problem.F.SG she   the-students
       'The problem is the students.' (Edwards 2006: 52)

The erstwhile pronoun can be negated in the present tense in the same way as a verb, as in (12). Once the number and gender are lost on the demonstrative, this form can turn into a negative particle.

(12)   Egyptian Arabic
    *faTma ma-**hiyya:**-sh   il-mas'u:la*
    Fatima NEG-be.3SG.F-NEG the-responsible
    'Fatima is not the one responsible.' (Edwards 2006: 53)

Sentences such as (12) may therefore participate in a NEC which occurs in a number of varieties of Arabic. In (13), there is a negative copula *miš* that derives from a form like (12), in particular from *ma-hu-šay* [NEG-COP-NEG], a copula inside a negative brace. The copula itself originates from a (minimally inflected) demonstrative *hu*. This negative copula *miš*, no longer inflected, is now being generalized for emphasis, as in (14).

(13)   Cairo Arabic
    *Mohammed **miš** hina*
    Mohammed NEG here
    'M. isn't here.' Diem 2014: 2

(14)   Cairo Arabic
    hiyya miš iggawwizzit?
    she   NEG married
    'Hasn't she married?' (Woidich 2006: 341)

Although existential verbs are the source of many auxiliaries and general copulas, as in Urdu/Hindi, the latter participate in the NEC by themselves. In languages where the copula develops from a demonstrative, as in Arabic, the copula also participates in the NEC. I'll end with an example of a copula/auxiliary participating in the NEC, where the reconstruction is not completely clear.

2.4 Athabascan

Athabascan is a family of 42 languages (according to Ethnologue[1]) that has a negative construction derived from a negative copula/auxiliary. For instance, Kari (1990) suggests that the negative *'ele'* in Ahtna (15) is related to the verb *lae* 'to be', and one could argue that the suffix *−leh* is also related to that verb. Kwadacha (16), Dëne Sųłiné (17), and Tlingit (18) have the same forms but no affix, and in Carrier (19), it is a prefix. It is thus possible that the negative marker arose from a negative existential.

(15) Ahtna
     'ele' *ugheli ghi-**leh***
     NEG good 3-PFV.be.NEG
     'He is not good.' (Kari 1990: 272)

(16) Kwadacha/Ft Ware Sekani
     *Edna **ʔədu** Mary əʔį̀ʰ*
     Edna NEG Mary 3.see
     'Edna doesn't see Mary.' (Hargus 2002: 110)

(17) Chipewyan/Dëne Sųłiné
     *nɛzú-**hílɛ***
     be.good-not
     'It is not good.' (Li 1967: 420)

(18) Tlingit
     λéɬ wusgîd
     NEG fall.IRR
     'He didn't fall.' (Krauss 1969: 72)

(19) Carrier
     ***lh**-e'-z-us-'al*
     NEG-OM-NEG-1SG-eat
     'I am not eating (an unspecified object).' (Poser 2009: 26)

Leer reconstructs an alternative scenario with a Proto-Athabascan *-*he* suffix, which is "originally an enclitic" (2000: 102), and a Proto-Atabaskan-Eyak-Tlingit particle *(ʔi)łeʔ* 'it is not' (Leer 2000: 123). He writes that it "seems probable that the Tlingit negative particle *ł* is by origin a contraction of the prohibitive interjectional particle *(ʔi)łí* 'don't' which is a phonologically perfect cognate with Pre-PA [Pre-Proto Athabascan] *(ʔi)łeʔ*" (Leer 2000: 123–4). Willem de Reuse (p.c.) also

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[1]https://www.ethnologue.com/subgroups/eyak-athabaskan.

suggests a link of the sentence-final prohibitive particles to this root. In Western Apache, for instance, there is *hela'* and in Navajo *lágo*, both meaning 'don't'.

One question is the following. Is *(ʔi)łeʔ* originally a third person negative of the verb 'to be' that was reanalyzed as a negative particle during Proto-Athabascan-Eyak-Tlingit or is it still an auxiliary? Rice (1989: 1108, n. 1) suggests that the negative *yíle* in Slave, e.g. in Bearlake (20), "may historically be an auxiliary verb in the perfective aspect".

(20)   Bearlake
       *bebí nedá **yíle***
       baby heavy NEG
       'The baby is light.' (Rice 1989: 1101)

The account for the doubling in (15) depends on the analysis of the (*'e*)*le*(*h*): negative existential, auxiliary, or particle. If it is an auxiliary or existential, the final -*leh* would be a renewed existential that became part of the negative; if a particle, doubling is fine. I think the data are not clear enough to decide between a prohibitive or negative copula/auxiliary earlier stage.

§2 has provided examples of auxiliaries and copulas that, like existentials, are sources for negatives.

3 Negative verbs and adverbs as source for the NEC?

Connected to the question about the source of the negative existential is the issue if semantically appropriate lexical items should be seen as part of the NEC. This would include negative verbs, such as *fail*, *lack*, and adjectives, like *empty*, as in the Givon Cycle, and negative adverbs, as in Jespersen's Cycle. Veselinova (2013: 136–7) sees these as part of the NEC. In this section, I first examine negative verbs and then non-verbal sources.

3.1 Negative verbs

Givón (1978: 89) writes "[n]egative markers in language most often arise, diachronically, from erstwhile negative main verbs, most commonly 'refuse', 'deny', 'reject', 'avoid', 'fail', or 'lack'". In earlier work (Givón 1973: 917), he provides example verbs: English *fail*, Kihung'an −*khona* 'refuse', and Bemba −*bula* 'lack, miss', but no actual trajectories. Veselinova (2013) quotes Kannada *illa* as derived from a Dravidian root 'to die'.

The Chinese negative *mei* is perhaps the most well-known example of a verb meaning 'to sink, die', as in (21), being reanalyzed as negative in (22) with an

optional *you* renewal (Croft 1991: 11, Shi & Li 2004, Yang 2012), also Nina Yunsun Lin (p.c.).

(21) Old Chinese
Yao Shun ji   ***mo***   *…*
Yao Shun since died
'Since Yao and Shun died, …' (Mengzi, Tengwengong B, Nina Yunsun Lin (p.c.))

(22) Modern Chinese
*wo **mei** (you) shu*
I   not   EX   book
'I don't have a book.'

Lam Chit Yu (2017) shows that, in Hong Kong Cantonese, the negative *mei* and existential/possessive *you* merge phonetically as *mou*, and a new copula could develop.

The changes in the verb *mei* present a classification challenge in that the verb first reanalyzes as a negative possessive in (23) and aspectual auxiliary in (24) in Early Mandarin (12th to 14th centuries CE) and then as an (aspectually restricted) negative in Modern Chinese.

(23) Early Mandarin
yu   *de*   *wang ren*   ***mei***   *kunan,*   *…*
wish PRT died   person textscneg.ex suffering
'If you wish that the deceased one has no suffering, …' (*Dunhuang Bianwen*, Nina Yunsun Lin (p.c.)

(24) Early Mandarin
zheyiri   ***mei***   *shang-guo zhong jiu*
for.a.while NEG.ASP serve-PRT cup   wine
'Wine has not been served for a while.' (*Jin ping mei*, Shi 2002: 200)

With the verb *mei* 'to die', the reanalysis of the negative verb in (21) is to a negative existential in (23) and then to a negative in (22) with the existential being renewed by *you*. The first step is an instance of the Givón Cycle and the second of the NEC.

Clear cases where a negative verb would be reanalyzed as a negative might be the verb *fail* in English, as in (25). Here, 'failed to' can be replaced by 'didn't' without loss of meaning.

(25)   [we] became so engrossed in our game of tetherball that we **failed to hear** the teacher calling us to return to the classroom. [COCA magazine]

Because the English negative -*n't* is in the final stages of the Jespersen Cycle (i.e. it is often inaudible and speakers have to repeat it), we expect such a renewal because the alternative, renewal of the negative by a negative adverb, as in (26), is objected to so much by prescriptivists.

(26)   He **don't** care about **nothing** but his car, rims, money. [COCA spoken]

However, the use of (25) is not frequent and many of the *failed to* instances still have the meaning of 'not be successful'. Table 2 provides some data on *fail* from American English since 1990. This figure shows little change in 25 years and that the spoken register lags behind, a sign that this change is not really in progress.

Table 2: *Failed to* and a verb in COCA.

Section	Freq	Size (M)	Per Mil	
spoken	1,881	109.4	17.20	
fiction	2,166	104.9	20.65	
magazine	3,553	110.1	32.27	
newspaper	4,999	106.0	47.18	
academic	4,866	103.4	47.05	
1990–1994	3,736	104.0	35.92	
1995–1999	3,203	103.4	30.96	
2000–2004	3,396	102.9	32.99	
2005–2009	3,228	102.0	31.63	
2010–2015	3,902	121.6	32.10	
Total	34,930			

As several people have mentioned to me, this verb is so negative (in American culture) that it probably won't catch on. Its use in the British National Corpus (e.g. in spoken) is even lower though not in the written registers. Other negative verbs, e.g. *lack*, don't show this either, however.

In this subsection, negative verbs have been shown to be the source for the NEC.

3.2 Non-verbal nature

Some scholars have tried to unify the NEC and the JC, e.g. van der Auwera et al. (2022 [this volume]). In addition, Veselinova's definition of the NEC includes

reanalyzing non-verbal material from existential constructions. The relevant example that Veselinova (2013: 136) mentions is from Ket. In this section, I argue against including these into the NEC. I'll first discuss the adverb/noun sources followed by the existential pro-form.

The JC has traditionally been seen as a nominal cycle because its source is a negative noun, such as *nan wuht* 'no thing' in (27), or a minimizer, such as French *pas* 'step'. These nouns can be reanalyzed as adverbs in (28).

(27) Old English
    *forþæmþe hie   hiora **nan wuht** ongietan   **ne** meahton*
    because   they their no thing   understand not could
    'because they couldn't understand anything' (Alfred, *Pastoral Care* 4.12
    Cotton, van Gelderen 2004: 81)

(28) Old English
    *Næron   ӡe **noht** æmetti3e,   ðeah   ge wel ne dyden*
    not-were you not   unoccupied though you well not did
    'You were not unoccupied, though you did not do well.' (OED, Alfred,
    Pastoral Care 207.20 Cotton, van Gelderen 2004: 82)

The JC typically renews the negative element *ne* by a new noun *nawhiht* whereas the NEC replaces the verb that has become part of the negative.

The example that has been used to show that non-verbal material from existential constructions is reanalyzed is a solitary one from Ket. In Ket, *bən's'aŋ* 'there are no' derives from the negative *bənj* and *us'aŋ* 'there', according to Veselinova (2015: 136, but without a reference) and this would use non-verbal parts of the construction. The Ket dictionary (Kotorova & Nefedov 2015) confirms *bən* as negative (2015: 135), *bənsaŋ* 'there are no' (2015: 136), and *usaŋ/usam* as 'there are' (2015: 415). The existential particles *bənsaŋ* and *usaŋ/usam* do not agree with the subject or mark tense and are also used to mark locative or possessives, as shown in (29).

(29) Ket
    *ɔ́pdaŋ bɔ́gdɔm **bʌ́nsaŋ***
    father rifle   not.exist
    'Father has no rifle.' (Kotorova & Nefedov 2015: 65, but gloss adjusted)

Using the dictionary information, it is possible to regard *usaŋ/usam* 'there are' in Ket as a copula (possibly originating from a demonstrative like Arabic) and then *bənsaŋ* is the combination of a negative and a copula, quite typical for the NEC.

Concluding, I have shown an interaction between the Givon Cycle and the NEC in §3.1 and have shown in §3.2 that the instance where a non-verbal part of the existential seems to participate in the NEC is just a negative form of the copula. The use of non-verbal material in the NEC is very rare. For instance, in their compilation of typical grammaticalizations, Heine & Kuteva (2002: 199–206) mention a development where a locative develops into an existential (e.g. Sranan *de* 'to be' from the locative *there*) but this is part of the copula cycle (van Gelderen 2015). This locative, having become a copula, can of course be input to a NEC, just like demonstratives that have been reanalyzed as copulas.

4 Doubling

A last question concerns another difference between the JC and the NEC, namely that doubling is typical for JC but not for the NEC. This follows from the ways the cycles procede: the NEC has a negative with an existential (or copula or auxiliary) serve as a sentential negative and there is therefore no doubling of the negative but rather of the copula. In contrast, the JC is about pragmatic strengthening by a second negative and therefore doubling is typical. In this section, I discuss two possible counterexamples to the claim that doubling the negative is not typical of the NEC.

Croft (1991: 10) mentions the case of Wintu where the negative existential ˤ*elew* is reinforcing the regular negative -*mina* in (30).

(30)　Wintu
　　　ˤ**elew**-*be:sken*　　*hara:-wer-**mina***
　　　NEG.EX-YOU.IPFV　go-FUT-NEG
　　　'You were not supposed to go.' (Pitkin 1984: 198)

The morpheme -*mina* derives most likely from the verb root *min* 'to not exist' (Schlichter 1981: 361, Pitkin 1984: 121) and is also related to *minel* 'be dead; die' (Schlichter 1981: 146). Schlichter (1981: 311) refers to ˤ*elew* as a negative auxiliary preverb so this language renews its negative auxiliaries with negative verbs (the Givón Cycle).

It is not clear from Croft, Schlichter, or Pitkin what the process was for adding ˤ*elew* in (30). The negative auxiliary ˤ*elew* is reconstructed from a demonstrative *ˤE and stative *l or future *le and a suffix *w (Pitkin 1984: 164). The examples of a solitary ˤ*elew* given by Pitkin (1984: 198) are optative or imperative prefixes, as in (31), or on its own, as in (32).

(31) Wintu
  ˚*elew-war*
  NEG.EX-go
  'don't venture' (Pitkin 1984: 198)

(32) *sedet* ˚*elew kiyemti·m*
  coyote not old.man.speak
  'Coyote never speaks wisely.' (Pitkin 1984: 269)

This means that ˚*elew* can be analyzed in Wintu as a copula in origin that became used with other negatives. There is no evidence that there was ever a stage with two negative existentials in this language but further work is needed.

 Butters (2022) mentions some NEC cases from Chadic that suggest doubling of the negative, based in part on Shay (2008) who, in her grammar of South Giziga, mentions an existential consisting of two negatives, namely (33). The verb *(á)n* only occurs in negative clauses and is therefore glossed as 'be.NEG'.
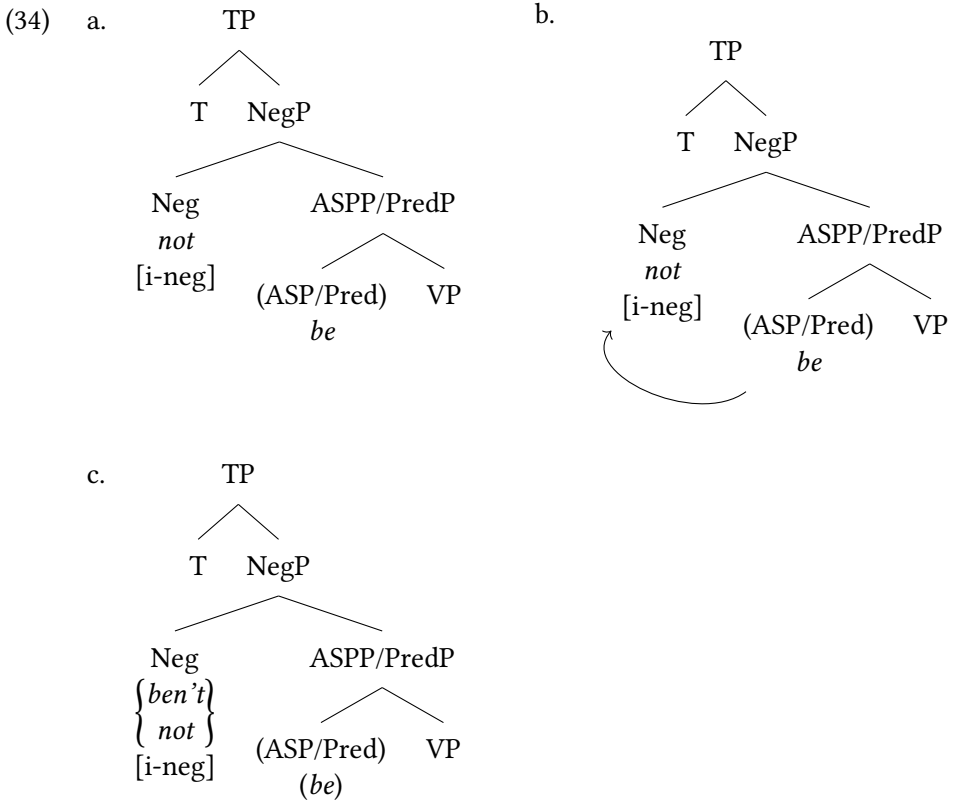
(33) South Giziga
  *kà **n**   **tá** sà jí   mèvèl*
  2 be.NEG NEG FUT catch liver
  'You will not be angry.' (Shay 2008, chapter 13)

Shay mentions that a "likely source for the negative existential predicate is a verb *n*V meaning 'be'" supported by Lukas' (1970: 151) report of a North Giziga -*naŋ* 'to be'. I therefore think this is not a case of doubling but just of an existential being used with a negative, i.e. stage B.

5 Structural characteristics of the NEC, JC, and the Givón Cycle

In this paper, I have argued that there are three negative cycles, NEC, JC, and the Givón Cycle, with the NEC interacting with Givón's and the Copula Cycles (which renew the existential lost in the NEC). In this section, I will provide formal descriptions of each of these cycles showing that they differ.

 For ease of exposition, I provide English morphemes for the NEC. A possible NEC may go from having the same negative with a full verb and an existential in (34a) to (34b) where the negative and existential are fused because the existential moves to the Neg head on its way to T. Finally, in (34c), the reanalyzed negative serves both existential and standard negatives and an optional new copula may appear.

(34) a.

```
              TP
            /    \
           T     NegP
               /      \
             Neg      ASPP/PredP
             not       /     \
           [i-neg]  (ASP/Pred)  VP
                      be
```

b.

```
                 TP
               /    \
              T     NegP
                  /      \
                Neg      ASPP/PredP
                not       /      \
              [i-neg]  (ASP/Pred)  VP
                          be
```

c.

```
              TP
            /    \
           T     NegP
               /      \
             Neg      ASPP/PredP
           ⎰ben't⎱    /      \
           ⎱ not ⎰ (ASP/Pred)  VP
           [i-neg]   (be)
```
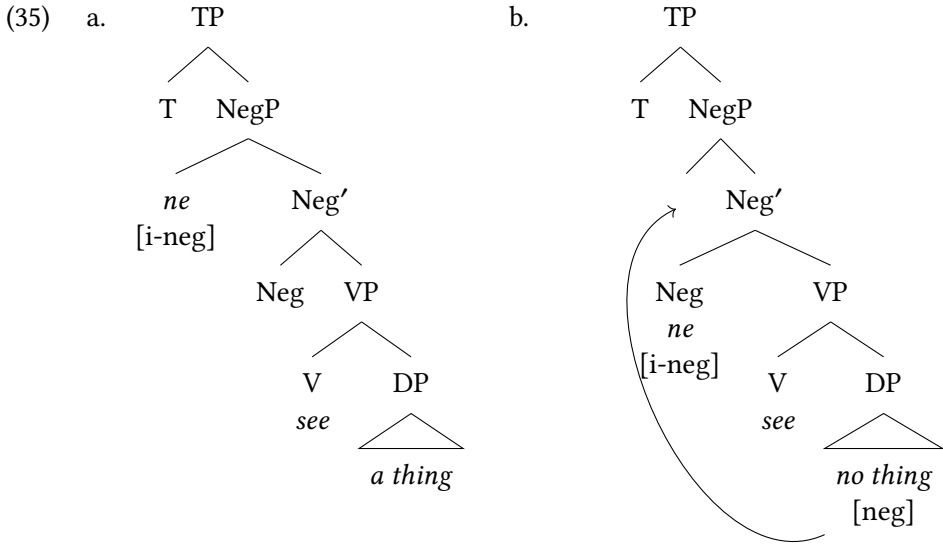
Because the NEC can have a copula as its source, the Pred(icate) P(hrase) is used in (34); the ASP(ect) P(hrase) is needed for stages of the NEC that are aspectually restricted, as in Chinese.

The trigger for this cycle is that copula verbs can be zero and the child reanalyzes the copula as part of the negative. For instance, Becker (2000) shows that young children omit the copula especially when the predicate expresses a temporary property (with an aspectual representation).

Turning to the JC, these changes don't single out a special kind of verb; this cycle typically takes a negative or indefinite noun to renew a negative head. Meillet (1912: 139) writes that what provokes the start of the (negative) cycle is the need to speak forcefully ("le besoin de parler avec force"). Kiparsky & Condoravdi (2006), in examining Jespersen's Cycle in Greek, find no evidence for phonetic weakening and similarly suggest pragmatic and semantic reasons. A simple negative cannot be emphatic; in order for a negative to be emphatic, it needs to be reinforced, e.g. by a minimizer. Adapting ideas from Dahl (2001), they argue that, when emphatic negatives are overused, their semantic impact weakens and they become the regular negative and a new emphatic will appear. I have provided
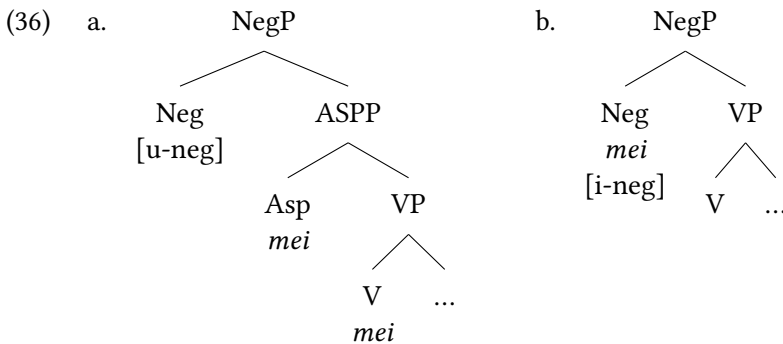
these changes in (35). In (35a), there is one negative, represented by Old English *ne*; in (35b), there is a second negative which, because it is agreeing with the negative features in the NegP, moves to the Spec of NegP and then the original negative is reinterpreted as head.

(35)   a.

```
              TP
             /  \
            T   NegP
               /    \
             ne     Neg′
           [i-neg]  /   \
                  Neg    VP
                        /  \
                       V    DP
                      see   /\
                          a thing
```

b.

```
              TP
             /  \
            T   NegP
                 \
                 Neg′
                /    \
              Neg     VP
              ne     /  \
           [i-neg]  V    DP
                   see   /\
                       no thing
                        [neg]
```

Finally, the negative features of the DP are reanalyzed as the grammatical negative features and housed in the specifier of the NegP and we are back to (35a).

The Givón Cycle involves the reanalysis of a verb into an aspect marker into a negative. This could be represented as a change from (36a) to (36b), with Chinese as the example language.

(36)   a.

```
              NegP
             /    \
           Neg    ASPP
         [u-neg]  /   \
                Asp    VP
                mei   /  \
                     V    ...
                    mei
```

b.

```
              NegP
             /    \
           Neg     VP
           mei    /  \
         [i-neg] V    ...
```

The reason English *failed to* in (36b) shows no inclination to take over as [i-neg] is related to English verbs having other features, e.g. tense and agreement and not being reanalyzable as a simple negative. The same hold for the NEC because a negative and a verb are hard to reanalyze as verb if there are too many agreement and other features involved. The JC doesn't encounter these obstacles.

6 Conclusions

In this paper, I argue in favor of seeing the NEC as a verbal cycle that combines a 'be'-like verb with a negative and then renews the existential/copular verb. The JC is a non-verbal cycle, with renewals originating in nouns and adverbs. Both the NEC and the Givón Cycle rely on verbs for their renewal and work best when these verbs don't have too many other features; JC is not affected by these verbal features.

Acknowledgements

List of languages

Ahtna	aht	Hindi	hin
Arabic	arb	Ket	ket
Bearlake	scs	Kwadacha	sek
Cantonese	yue	Marathi	mar
Carrier	crx	Skolt Saami	sms
Chinese	chi	South Giziga	giz
Chipewyan/Dëne Sųłiné	chp	Southern Saami	sma
Egyptian Arabic	arz	Tlingit	tli
English	eng	Urdu	urd
Estonian	est	Wintu	wnw
Finnish	fin		

Abbreviations

ASP	aspect	NEC	Negative Existential Cycle
CONNEG	negative participle	NEG	negative
COP	copula	OM	object marker
EX	affirmative existential	PFV	perfective
EMPH	emphatic	PRED	predicate
FUT	future	PROG	progressive
JC	Jespersen Cycle	PRS	present
IPFV	imperfective	PST	past
IRR	irrealis	PRT	particle

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Corpus of Contemporary American English (COCA)
Corpus of Historical American English (COHA)

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