

Negative polarity items in Ewe¹

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Collins & Postal (2014) argue that English NPIs have two distinct syntactic structures: a unary NEG structure and a binary NEG structure. They suggest that this distinction is generally valid for natural languages. This formal difference was taken to reconstruct the common distinction in NPI studies between strong and weak NPIs. The present analysis of Ewe NPIs seeks to provide cross-linguistic support for this dual conception of NPIs by showing that the *ke*-NPIs in this language are all properly analyzed exclusively as unary NEG structures.

KEYWORDS: bipartite negation, events, Ewe, negative polarity items, weak and strong NPIs

1. INTRODUCTION

A NEGATIVE POLARITY ITEM (NPI) is commonly taken to be an expression that only appears in certain contexts, prototypically those that are negative. For example, *any* and by extension, phrases constructed with *any*, such as *anybody*, are English NPIs. That is, they cannot occur in positive declarative clauses such as (1a), but can appear in negative ones such as (1b):

- (1) (a) *Kofi saw anybody.
 - (b) Kofi didn't see anybody.

For general background on NPIs see Ladusaw (1979, 1996), Linebarger (1980, 1987), Progovac (1994), Giannakidou (1998, 2011), Zwarts (1998, 1999) and Horn (2016).

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The goal of this paper is to investigate Ewe negation and negative polarity. Consider the Ewe sentences (2), which correspond to English (1):

- (2) (a) *Kofí kpó ame ádéké Kofi see person any
 - (b) Kofí mé-kpó ame ádéké o Kofi NEG₁-see person any NEG₂
 'Kofi didn't see anybody.'

One difference between English and Ewe is that Ewe has so-called BIPARTITE NEGATION. That is, in a wide range of cases negation is expressed with two particles: me, which precedes the verb (henceforth, NEG₁), and o, which follows the VP (henceforth, NEG₂). For a general survey of bipartite negation see Bell (2004). Ewe bipartite negation will be analyzed in Sections 2 and 11.

Setting aside the issue of bipartite negation for now, (2a) shows that *ame ádéké* 'any person' cannot appear in a positive declarative clause, just as NPI *anybody* cannot appear in a positive declarative clause. For this reason, we assume that *ame ádéké* is an NPI, just like *anybody*. Henceforth, we refer to expressions formed with *ádéké* 'any' as *ke*-NPIs. However, as shown in what follows, there are significant differences between the syntax of Ewe *ke*-NPIs and English *any*-NPIs. We will show how these differences can be understood within the framework of Collins & Postal 2014 (henceforth, CP2014).

Adopting the general framework developed in CP2014 (see Section 3 below), we show that the distribution of Ewe *ke*-NPIs is limited to the type of environments argued in CP2014 to be characteristic of strong NPIs. There simply turn out to be no weak nominal NPIs in Ewe. Thus the environments supporting the presence of *ke*-NPIs correspond to those supporting English strong nominal NPIs like *jackshit*. Ewe environments corresponding to English ones where *any* NPIs can occur but *jackshit* cannot, such as *if* clauses, restrictive relative clauses with universal heads, etc. thus preclude the presence of *ke*-NPIs.

We take this specific distributional property of Ewe *ke*-NPIs to further justify the distinction of two structurally distinct types of NPI drawn in CP2014. The Ewe facts further support the conclusion drawn on the basis of English facts such as the systematic difference between environments permitting NPI *any* and the proper subset of those also permitting NPI *jackshit*.

There are also three adverbial NPIs in Ewe whose distribution is parallel in key ways to the English NPI *yet*. These NPIs do not fit squarely into the CP2014 unary NEG vs. binary NEG analysis of NPIs. We discuss the problems these NPIs raise and alternative ways of approaching them in Section 12.

To situate Ewe, it is the westernmost language of Gbe, a subgroup of the Kwa language family. The Gbe languages are spoken in Ghana, Togo, Benin and some parts of Nigeria. In Ghana, Ewe is used as a medium of instruction and is a subject of study from primary school to higher education. The data for this research were elicited from the third author, who is a native speaker of the Wedome (Uedome)

variety of Ewe. The Wedome variety is spoken mainly in Ho, which is in the center of the Volta Region of Ghana The third author also speaks and understands other varieties of Ewe, such as Anlo and Tongu, which are spoken mainly in Southern Volta, and Mina/Gengbe spoken in Togo. Based on the sociolinguistic background of the third author, the majority of the data are based on standard/unified Ewe, with some influence from Wedome.

The paper is structured as follows. In Section 2, we give an overview of the basic facts about Ewe negation. In Section 3, we present the basic framework of CP2014. In Section 4, we give a NEG raising analysis of *ke*-NPIs. In Sections 5–8, we discuss various properties of *ke*-NPIs and show how those properties follow from the analysis given in Section 4. Sections 9–11 discuss Ewe bipartite negation. Section 12 discusses three Ewe non-*ke*-NPIs, each of which is adverbial. Section 13 is the conclusion.

2. BIPARTITE NEGATION: BASIC FACTS

Before discussing NPIs and their analysis, we give an overview of the basic facts of Ewe negation in order to help the reader parse the relevant sentences which follow. As shown in (3), both NEG_1 and NEG_2 are necessary in bipartite negation:

- (3) (a) Kofí mé- du nú o
 Kofi NEG₁- eat thing NEG₂
 'Kofi didn't eat.'
 - (b) *Kofí du nú o Kofi eat thing NEG₂
 - (c) *Kofí mé- du nú Kofi NEG₁- eat thing

NEG₂ immediately follows the verb phrase. In the following example, NEG₂ must follow the direct object; (4c) shows that there cannot be two occurrences of NEG₂:

- (4) (a) Kofí mé-kpó nye fé agbalé o Kofi NEG1-see 1SG POSS book NEG2
 'Kofi didn't see my book.'
 - (b) *Kofí mé-kpó o nye fé agbalé Kofi NEG₁-see NEG₂ 1SG POSS book
 - (c) *Kofí mé-kpó o nye fé agbalế o Kofi NEG₁-see NEG₂ 1SG POSS book NEG₂

The following examples show that NEG_2 must follow various kinds of VP-internal PPs (see also Aboh 2010: 122–123):

- (5) (a) nye-mé-fo nu kplé Kofí o
 1 sG-NEG₁-hit mouth with Kofi NEG₂
 'I didn't speak with Kofi.'
 - (b) *nye-mé-fo nu o kplé Kofí 1SG-NEG₁-hit mouth NEG₂ with Kofi
- (6) (a) wó-mé-le tá-me bu-mí tsó ga η ú o 3PL-NEG₁-COP head-inside think-PROG from money about NEG₂ 'They are not thinking about money.'
 - (b) *wó-mé-le tá-me bu-m o tsó ga η ú 3PL-NEG1-COP head-inside think-PROG NEG2 from money about

VP adjuncts must also appear to the left of NEG₂.

- (7) (a) nye-mé-dzi ha le azấdu*f*é o 1SG-NEG₁-sing song at party NEG₂
 'I didn't sing at the party.'
 - (b) *nye-mé-dzi ha o le azấdu*f*é 1SG-NEG₁-sing song NEG₂ at party
- (8) (a) nye-mé-dzó háfí Kofí dzó o 1SG-NEG1-leave before Kofi leave NEG2
 'I didn't leave before Kofi left.'
 - (b) *nye-mé-dzó o háfí Kofí dzó 1SG-NEG₁-leave NEG₂ before Kofi leave

The facts in (4)–(8) suggest that NEG₂ is in a position following the VP.

However, certain sentential elements can follow NEG₂, for example, question particles (Ameka 1991: 64–65):

(9) Kofí mé- du nú o a Kofi NEG₁- eat thing NEG₂ Q'Did Kofi not eat?'

Furthermore 'because'-adjuncts either precede or follow NEG₂ with contrasting interpretations:

- (10) (a) me-dzó dé Kofí ta 1SG-leave PREP Kofi head 'I left because of Kofi.'
 - (b) nye-mé-dzó o dé Kofí ta 1SG-NEG₁-leave NEG₂ PREP Kofi head
 'I didn't leave because of Kofi.'
 ('I stayed because I wanted to talk to him.')

(c) nye-mé-dzó dé Kofí ta o 1SG-NEG₁-leave PREP Kofi head NEG₂
'I didn't leave because of Kofi.'
('I left for another reason.')

Compare (10b) to (8b), where NEG₂ may only follow the adjunct. The data suggest that 'before'-clauses and 'because'-clauses occur in different syntactic positions. Arguably, 'before'-clauses are VP-internal, and hence never follow NEG₂, while 'because'-clauses may either be VP-internal or VP-external.

We turn to the placement of NEG₁, which precedes the verb and also preverbal auxiliary elements, for example, the future marker:

(11) Kofí mé-á- du nú o (spelled madu) Kofi NEG₁-FUT- eat thing NEG₂
'Kofi will not eat.'

Furthermore, in the negative imperative, NEG_1 precedes the negative imperative particle *ga*-:

(12) me-ga- du-i o NEG₁-NEG.IMP- eat-3SG NEG₂ 'Don't eat it!'

In summary, the following generalizations about NEG₁ and NEG₂ hold for finite clauses which manifest bipartite negation:

- (13) (a) NEG₁ and NEG₂ are obligatory.
 - (b) NEG₂ appears immediately after the VP.
 - (c) NEG₁ precedes the future and negative imperative markers.

While finite clauses include NEG_1 and NEG_2 , gerundive phrases do not in general manifest bipartite negation. As the examples in (14) show, gerundive phrases are formed by verbal reduplication. When the verb is negated, the combination of the negation marker and the verb is reduplicated, yielding the sequence: NEG-V-NEG-V.

(14)	(a)	ame-ma-bu-ma-bu mé-nyó-o				
		$person-\text{NEG-respect-NEG-respect} \ \text{NEG}_1-be.good-\text{NEG}_2$				
		'Lack of respect is not good.'				
	(b)	Kofí dzó nu-ma-fo-ma-fo ná Áma				
		Kofi leave mouth-NEG-hit-NEG-hit to Ama				
		'Kofi left without talking to Ama'				

In these examples, there is a preverbal NEG ma-, but no post-VP NEG in the gerundive phrase. While we cannot pursue the issue of the distribution of NPIs in gerundive phrases, the following sentence shows that when an NPI is present, NEG₂ appears:

 (15) Kofí dzó nu-ma-fo-ma-fo ná ame ádéké o Kofi leave mouth-NEG-hit-NEG-hit to person any NEG₂
 'Kofi left without talking to anybody.'

In some conditional constructions, there is a post-VP o, but no preverbal negation:

(16) Me-da nú (o) nye-mé-da nú o Kofí á-dzó
1SG-cook thing ?? 1SG-NEG1-cook thing NEG2 Kofi FUT-leave
'Whether I cook or I don't cook, Kofi will leave.'

The analysis of NEG₂ given in Section 9 below does not cover the first post-VP o in cases like (16). A reviewer asks whether the first post-VP o may be a conjunction. We have not investigated the issue.

3. COLLINS & POSTAL 2014

CP2014 (Chapter 3 and passim) argues that Universal Grammar defines two fundamental types of NPIs. Type 1 are illustrated in (17), and Type 2 NPIs are illustrated in (18):

- (17) (a) I didn't see anything.
 - (b) Nobody saw anything.
- (18) (a) If you see anything, tell me.
 - (b) Did you see anything?
 - (c) It surprises me that he saw anything.
 - (d) Everybody who saw anything was afraid.
 - (e) Only Kofi saw anything.

Roughly, Type 1 NPIs require a negation somewhere in the sentence (not necessarily overt, see CP2014: Chapter 3). In (17a), there is a negation following the finite auxiliary. In (17b), the negation is part of the subject quantifier DP *nobody*. Type 2 NPIs do not require any negation. For example, in (18a), the NPI *anything* occurs, but there is no overt negation and no motivation for positing a covert one.

CP2014 (Chapter 3 and passim) argues that Type 1 and Type 2 NPIs have partially different syntactic structures. This represents a sharply distinct position from mainstream views of NPIs, where NPIs, including those in (17) and (18), are usually analyzed as indefinites. Therefore, in mainstream views, there is no difference between the structure of the NPIs in (17) and (18).

Type 1 NPIs have a structure and meaning identical to the structure and meaning of negative quantifiers, accounting for the truth conditional equivalence of pairs like the following:

- (19) (a) I saw nobody. $\neg \exists x [person(x) \land see(I, x)]$
 - (b) I didn't see anybody. $\neg \exists x [person(x) \land see(I, x)]$

In particular, CP2014 (Chapter 3) analyzes both the *nobody* and *anybody* of (19) as DPs of the form [[NEG SOME] body], where NEG modifies an existential quantifier expression *SOME*. The differences between (19a, b) lie in the fact that in the (19a), *SOME* is realized as null, while NEG is spelled out as *no*. In (19b), NEG raises to the post-Aux position, and *SOME* is spelled out as *any* (see rule (21)).

In these terms, a more precise structure of (17a) is given in (20b):

- (20) (a) I didn't see anything.
 - (b) I did NEG₁ see [[<NEG₁> SOME] thing]

In (20b), NEG₁ originates in a position modifying *SOME* (internal to the NPI *anything*). NEG₁ then raises to the post-Aux position, but is interpreted in its position of origin, modifying *SOME*. The angled brackets around the lower occurrence of NEG₁ in (20b) indicate a non-pronounced occurrence. The reader is referred to CP2014 (Chapters 3 and 5) for further discussion.

CP2014 (19, 21) claim that *any* in (20a) is a form of *SOME*, determined by the rule in (21):

- (21) The SOME/any mapping
 - (a) SOME \rightarrow any, in the context [<NEG>] (NEG unpronounced)
 - (b) SOME \rightarrow null, in the context [NEG __] (NEG pronounced)
 - (c) SOME \rightarrow some, otherwise

Type 2 NPIs are analyzed in CP2014 (Chapter 3 and passim) as double negation structures. Consider again (18a), repeated here as (22):

(22) If you see anything, tell me.

First, there is no overt NEG preceding the verb in (22), unlike the situation with Type 1 NPIs illustrated in (17a). Second, the interpretation of *anything* in (22) is equivalent to the existential quantifier *something*. It is argued that the NPI *anything* in (22) has the double negation structure in (23). In such a structure, the semantics of NEG₁ cancels that of NEG₂, so that the resulting interpretation is equivalent to that of *something*.

(23) If you see [[<NEG₁> [<NEG₂> SOME]] thing], tell me.

A binary NEG structure such as (23) contains two unpronounced NEGs. According to CP2014 (especially Chapters 7 and 8), the NEGs in (23) are unpronounced because they are deleted. NEG deletion involves a relation between individual NEGs and other phrases, their NEG DELETERS. The relevant NEG deleters in the case of Type 2 NPIs include the following:

- (24) Some NEG deleters in binary NEG structures
 - (a) The conditional complementizer *if*
 - (b) The yes–no question complementizer (the Q morpheme)

- (c) Verbs such as *surprise*
- (d) The quantifier every
- (e) The phrase [only DP]

So in (23), the conditional complementizer *if* deletes the NEG₁ of the structure [NEG₁ [NEG₂ SOME]] (while NEG₁ deletes NEG₂). Because NEG₂ is deleted, *SOME* is realized as *any* by rule (21a). See CP2014 (Chapter 4) for further detail.

CP2014 (Chapter 3 and passim) refer to Type 1 NPIs as UNARY NEG NPIs, since only one NEG modifies SOME. Type 2 NPIs are referred to as BINARY NEG NPIs, since there are two NEGs present. The distinction between unary and binary NEG NPIs corresponds to the traditional distinction drawn between strong versus weak NPIs, and strict versus non-strict NPIs (see CP2014: Section 9.4 for discussion). The analysis of Type 2 NPIs plays only a very marginal role in this paper.

4. ANALYSIS OF KE-NPIS

The following examples illustrate a range of Ewe expressions that contain $\dot{a}d\dot{e}k\dot{e}$ (built with the morpheme - $k\dot{e}$; see (29) below for an analysis breaking down $\dot{a}d\dot{e}k\dot{e}$ morpheme by morpheme):

(25)	(a)	Kofí mé-kpó ame ádéké o				
		Kofi NEG ₁ -see person any NEG ₂				
		'Kofi didn't see anybody.'				
	(b)	Kofí mé-yi afí ádéké o Kofi NEG ₁ -go place any NEG ₂				
		'Kofi didn't go anywhere.'				
	(c)	Kofí mé-kp ó nánéké o (nánéké = nú ádéké) Kofi NEG1-see anything NEG2				
		'Kofi didn't see anything.'				
	(d)	Kofí me-kpó avú ádéké-wó o Kofi NEG ₁ -see dog any-PL NEG ₂				

(25c) nánáká is a suppletive form of <math>nú ádáká which can l

'Kofi didn't see any dogs.'

In (25c), *nánéké* is a suppletive form of *nú ádéké*, which can be used in careful speech. In the remainder of the paper, we just use *nánéké*.

As the following examples illustrate, when a ke-NPI is present, NEG₁ and NEG₂ are obligatory (just as when no ke-NPI is present, as shown in (3) above):

- (26) (a) *Kofí kpó ame ádéké Kofi see person any
 - (b) *Kofí yi afí ádéké Kofi go place any

- (c) *Kofí kpó nánéké Kofi see anything
- (d) *Kofí kpó avú ádéké-wó Kofi see dog any-PL

Ewe does not have negative expressions like English *nobody*, *nothing* and *nowhere*, which can stand alone without an additional negative particle (like *n*'t or *not*). English sentences with such negative quantifiers are translated with *ke*-NPIs.

The form *ádéké* is composed of *ádé*, an indefinite marker (illustrated in (27)) and *-ké* (see Westerman 1930: 70; Agbedor 1994: 57):

(27) Kofí kpó avú ádé Kofi see dog INDEF 'Kofi saw a certain dog.'

In spoken Ewe, the indefinite is expressed either as *avú ádé* or *avú dé* 'a dog'. Crucially, the NPI is also expressed either as *avú ádéké* or *avú déké*. We do not pursue these alternative forms here.

Indefinites can be expressed in Ewe in two different ways. The form avi ade in (27) is a specific indefinite, and can be paraphrased as 'a certain dog'. But there is also a bare indefinite illustrated in (28). We do not investigate the difference between these two types of indefinite DPs here.

- (28) (a) e-kpó avú kpó a
 2SG-see dog some.time Q
 'Have you ever seen a dog?'
 - (b) č, me-kpó avú kpó yes 1SG-see dog some.time
 'Yes, I have seen a dog.'

Now consider the internal structure of *ke*-NPIs. Agbedor (1994: 57) calls -*ké* a 'negative quantifier marker' and assumes that *ke*-NPIs involve a 'negative particle in the negative quantifier'. Rongier (1988: 76) calls -*ké* a 'suffixe de négation', and uses the expression 'négation du nom' for *ke*-NPIs. He notes the relationship between *ke*-NPIs and verbal negation as well: 'La négation du nom entraine celle du verbe' [Negation of the noun requires that of the verb].²

We assume that $-k\dot{e}$ is just NEG, which modifies $\dot{a}d\dot{e}$. On these assumptions, the structure of Ewe *ke*-NPIs is as in (29):

^[2] Westermann (1930: 70–71) claims that *-ké* in NPIs is an 'emphatic particle': 'Should the emphatic particle ké be added to dé, it means *any*; with this meaning it is nearly always used in negative sentences only'.

According to Westermann (1930: 68–69), -*ké* is also used to modify demonstratives and pronouns: 'The demonstrative and relative pronouns may be strengthened or made more general in their application, as the case may be, in the same way as the personal pronouns by the use of ké, e.g. nye ké *just I*; xɔ sia ké *just this very house*; ame má ké *this very same person*; amésì ké *whosoever, he who*; núsì ké *whatever*'.

(29) Structure of ame ádé-ké 'anybody'



This structure could be refined in various ways not directly relevant to the current paper. For example, the structure in (29) violates Kayne's (1994) LCA (Linear Correspondence Axiom), since NP precedes D (instead of following it). Furthermore, in Principles and Parameters/Minimalist syntax, $\dot{a}d\dot{e}$ and $-k\dot{e}$ would head separate projections (see CP2014: 27 for discussion).

While we have used the term 'NPI' to characterize *ke*-NPIs, it would have been equally in line with current usage to refer to them as N-WORDS. There are a variety of different approaches to n-words conflicting in various ways including those in Haegeman & Zanuttini (1991, 1996), Ladusaw (1992), Giannakidou (1998, 2000, 2006), Haegeman (1995, 1997), Zanuttini (1997), de Swart & Sag (2002), Watanabe (2004), and Zeijlstra (2004, 2007), among many others.

Of course, it may be that the emphatic particle $-k\dot{e}$ and the NPI $-k\dot{e}$ are related diachronically, and if so, that would be quite interesting. But assuming that there is a diachronic relationship in no way argues against our synchronic analysis of NPI $-k\dot{e}$ as NEG.

Clearly in these examples, $-k\dot{e}$ does not have a negative sense. These quotes from Westermann suggest a different way of analyzing $-k\dot{e}$, opposed to our analysis of $-k\dot{e}$ as NEG. On the alternative $-k\dot{e}$ is an emphatic particle, even when used in NPIs.

However, there are a few problems with this alternative. First, Westermann does not explain why he qualifies his statement with 'nearly always', and gives no examples to show that a stronger statement is not warranted. If it is the case that -ké modifying $\hat{a}d\hat{e}$ is always found in a negative context, this supports our analysis of -ké as NEG, since we predict that -ké will only be found in negative contexts (since -ké is a copy of the moved NEG). Second, based on the examples given by Westermann, it is not clear what the interpretation of the emphatic particle -ké is. In some examples it is translated as 'just', in others it seems to act as a universal quantifier (whosoever, whatsoever). In others, it has the interpretation 'same'. Anyone who wants to analyze the NPI -ké as an instance of the emphatic particle must first analyze the interpretation of the emphatic particle in non-NPI contexts (e.g. modifying pronouns) and then show how on that interpretation -ké combines with $\hat{a}d\hat{e}$ to form an NPI. Third, there is an issue with the translations that Westermann gives. Normally, to translate 'just I' into Ewe, one says *nye ko* (me only). Westermann does not give full sentences to illustrate 'strengthening of pronouns', nor does he give the contexts in which the phrases are used. So it is difficult to draw any semantic conclusions based on his data, and we have not done a systematic study either.

Our analysis of Ewe *ke*-NPIs implicitly takes a position on the treatment of n-words. Contrary to various current views, we take them to involve a syntactic NEG, as well as a form representing an existential quantifier. This is parallel to the CP2014 view mentioned in Section 3 that English negative quantifier DPs such as *nobody* and unary NEG NPIs such as *anybody* both have the underlying structure [[NEG SOME] body]. In Ewe, the parallel structure has a morphological manifestation, in that both NEG *-ké* and SOME *ádé* are realized overtly. Therefore, the Ewe structure directly supports the claim that UG admits the possibility of NEG modifying *SOME*.

Now consider the relation between the NEG *-ké* and the preverbal NEG marker *mé*-. Consider again (1b) and (2b) above, repeated as (30a, b):

- (30) (a) Kofí didn't see anybody.
 - (b) Kofí mé-kpó ame ádéké o Kofi NEG1-see person any NEG2
 'Kofi didn't see anybody.'

As discussed in Section 3, we assume that the post-Aux NEG in (30a) (that is, -n't) originates in a position modifying SOME internal to the NPI, but raises to the post-Aux position. We propose that (30a) and (30b) have parallel structures. Just as (30a) involves NEG raising, so does (30b). But a key difference between Ewe and English is that Ewe NEG raising in cases like (30b) leaves a copy NEG in the origin position.

(31) The -ké in a ke-NPI is a copy of the original NEG.

The DP internal NEG is resumptive element, arguably similar to the highlighted resumptive pronoun in English cases like *He is the kind of guy who I wonder if he will ever get married*. In this example, the resumptive pronoun occupies the position that in Principles and Parameters syntax would normally be occupied by a trace of the movement of the relative pronoun *who*.

Crucially, we are assuming that while a copy NEG can have a phonological shape identical to the raised element (see Bell 2004 for a discussion of this situation in Afrikaans), this need not be the case (just as in the resumptive pronoun case, the raised *wh*-phrase and its associated resumptive pronoun are not identical phonologically). In (30b), the preverbal NEG₁ is *mé*- and the DP internal copy is $-k\acute{e}$.

Given the assumption in (31), the analysis of (30b) is given below. The notation $cNEG_1$ is used to represent the fact that $-k\acute{e}$ is a copy NEG, associated with the raising of NEG₁.

(32) Kofí mé- kpó ame ádé -ké o NEG1- see person some -cNEG1 NEG2 NEG raising + Copying Leaving out the postverbal NEG_2 for the moment, the structure of (32) is as follows:



The T element in (33) can be filled by the future marker in some sentences, or left empty (in past and present tense sentences). The structure in (33) could be refined in various ways, but suffices for our purposes.

Given this analysis of *ke*-NPIs, two parameters arguably distinguish Ewe from English. First, when a NEG raises from a negated existential DP, it leaves a copy in Ewe, but not in standard English. Specifying standard English in this generalization is important, since NEG raising can leave a copy in varieties of non-standard English, as in the non-standard English sentence *I didn't see nobody* (see Blanchette 2015 and Collins & Postal 2017). This parameter is given below:

(34) Parameter A

Standard English: NEG raising from a unary NEG structure does not leave a copy.

Ewe: NEG raising from a unary NEG structure leaves a copy.

The second parameter is that NEG raising is optional in English, but obligatory in Ewe:

(35) Parameter B

Standard English: NEG optionally raises from a unary NEG structure. Ewe: NEG obligatorily raises from a unary NEG structure.

This parameter accounts for the fact that English allows both (19a, b) while Ewe only has the analog of (19b). Example (19a) does not involve NEG raising, while (19b) does.

5. Non-negative contexts

In this section, we show that Ewe *ke*-NPIs cannot appear in conditionals, in yes– no questions, in the complement of a verb meaning 'surprise', in the restriction of universal quantifiers or in the scope of 'only'-DPs. In this way, *ke*-NPIs differ from *any*-NPIs in English which appear in all those environments. The generalization is that *ke*-NPIs only appear if a preverbal negation is present. We will show that this generalization follows from the analysis of *ke*-NPIs presented in Section 4.

We will illustrate each context with two NPIs, *nánéké* 'anything' and *avú ádéké-wó* 'any dogs'. The translations will illustrate that English *any*-NPIs are available in the corresponding contexts.

(36)	(a)	*né	e-kpś	nánéké,	gblɔ-e	ná-m	
		if	2sg-see	anything	say-3sg	to-1SG	
		'If y	'If you see anything, tell me.'				

(b) *né e-kpó avú ádéké-wó, gblo-e ná-m if 2SG-see dog any-PL say-3SG to-1SG 'If you see any dogs, tell me.'

If the NPI is replaced by an indefinite, the resulting examples are grammatical, as shown below:

- (37) (a) né e-kpó nú ádé, gblo-e ná-m if 2sG-see thing INDEF say-3sG to-1sG
 'If you see something, tell me.'
 - (b) né e-kpó avú ádé-wó, gblo-e ná-m if 2SG-see dog INDEF-PL say-3SG to-1SG 'If you see some dogs, tell me.'

The following examples show that ke-NPIs do not occur in yes-no questions:

- (38) (a) *e-kpó nánéké a
 2SG-see anything Q
 'Did you see anything?'
 - (b) *e-kpó avú ádéké-wó a
 2SG dog any-PL Q
 'Did you see any dogs?'
- (39) (a) e-kp5 nú adé a
 2SG-see thing INDEF Q
 'Did you see something?'
 - (b) e-kpó avú ádé-wó a 2SG dog INDEF-PL Q 'Did you see some dogs?'

The following examples show that *ke*-NPIs are not licensed in the clausal complement of a verb meaning 'surprise':

- (40) (a) *é-wo ŋku ná-m bé é-kpó nánéké
 3SG-do surprise to-me that 3SG-see anything
 'It surprises me that he saw anything.'
 - (b) *é-wo ŋku ná-m bé é-kpó avú ádéké-wó 3SG-do surprise to-3SG that 3SG-see dog any-PL 'It surprises me that he saw any dogs.'
- (41) (a) é-wo ŋku ná-m bé é-kpó nú ádé
 3SG-do surprise to-me that 3SG-see thing INDEF
 'It surprises me that he saw something.'
 - (b) é-wo ŋku ná-m bé é-kpó avú ádé-wó 3sG-do surprise to-3sG that 3sG-see dog INDEF-PL
 'It surprises me that he saw some dogs.'

The following examples show that ke-NPIs are not licensed in the restriction of a universal quantifier (the gloss TP stands for 'terminal particle' (see Ameka 1991), which should not be confused with TP 'tense phrase' used in the syntactic structures in this paper):

- (42) (a) *ame síà ame si kpó nánéké lá dó vovó everybody which see anything TP put fear 'Everybody who saw anything was frightened.'
 - (b) *ame síà ame si kpó avú ádéké-wó lá dó vovố everybody which see dog any-PL TP put fear 'Everybody who saw any dogs was frightened.'

- (43) (a) ame síà ame si kpó nú ádé lá dó vovó Everybody which see thing INDEF TP put fear 'Everyone who saw something was frightened.'
 - (b) ame síà ame si kpó avú ádé-wó lá dó vovố everybody which see dog INDEF-PL TP put fear 'Everyone who saw some dogs was frightened.'

Lastly, 'only'-DPs do not license Ewe ke-NPIs:

- (44) (a) *Kofí ko-é kpó nánéké Kofi only-FOC see anything
 'Only Kofi saw anything.'
 - (b) *Kofí ko-é kpó avú ádéké-wó Kofi only-FOC see dog any-PL
 'Only Kofi saw any dogs.'
- (45) (a) Kofí ko-é kpó nú ádé
 Kofi only-FOC see thing INDEF
 'Only Kofi saw something.'
 - (b) Kofí ko-é kpó avú ádé-wó Kofi only-FOC see dog INDEF-PL
 'Only Kofi saw some dogs.'

Evidence for the claim that *ke*-NPIs only appear if a preverbal negation is present is provided by the novel *Ku le Xome* (Akafia 1970). A search revealed 27 instances of *nánéké* 'anything', all of them in contexts containing a preverbal negation *mé*-.

These facts about *ke*-NPIs follow from our analysis of *ke*-NPIs as negative DPs. For example, consider (36a), repeated below:

 (46) *né e-kpó nánéké, gblo-e ná-m if 2SG-see anything say-3SG to-1SG
 'If you see anything, tell me.'

Under our assumption in (31) that $-k\dot{e}$ is a copy left by NEG raising, (46) is ungrammatical because the only way $-k\dot{e}$ can be introduced into the structure is as a copy of a raised NEG. But there is no raised NEG in (46). A similar explanation holds for (38), (40), (42) and (44).

The English translation of (46) with *anything* is grammatical because *anything* does not have to represent a unary NEG NPI. So there is no reason for it to be accompanied by a raised NEG. Rather, in the translation of (46), *anything* is a Type 2 NPI, which, in the framework of CP2014, is a binary NEG NPI with the conditional complementizer *if* as the NEG deleter.

There are unary NEG NPIs in English that are not homophonous with binary NEG NPIs. As discussed in CP2014 (Section 4.8), *jackshit* has both an NPI and a non-NPI usage:

- (47) (a) Terry knows jackshitz about transponders. (non-NPI usage)
 - (b) Terry doesn't know jackshit_A about transponders. (NPI usage)

We gloss the occurrence in (47a) as *jackshit*_Z because it is equivalent to 'zero'. See Postal (2004: Chapter 6). We gloss the occurrence in (47b) as *jackshit*_A because it is equivalent semantically to *anything*.

The *jackshit*_A usage cannot appear in non-negative contexts:

(48) *If he knows jackshit_A about physics, he will be admitted.'If he knows anything about physics, he will be admitted.'

Example (48) is ruled out on the relevant interpretation, illustrating that $jackshit_A$ cannot occur in non-negative contexts.

A striking generalization about the environments where Ewe *ke*-NPIs occur is that they correspond to those environments where *jackshit*_A appears in English. This parallel distribution strongly suggests that *ke*-NPIs and *jackshit*_A should be analyzed in the same way. In present terms, both are analyzed as unary NEG NPIs.

Another generalization apparent from the data in (36)–(45) is that Ewe lacks Type 2 NPIs in these contexts. For example, consider (37a), repeated below:

 (49) né e-kpó nú ádé, gblo-e ná-m if 2SG-see thing INDEF say-3SG to-1SG
 'If you see something, tell me.'

There is no Type 2 NPI in Ewe corresponding to *something* that appears in a conditional clause. Rather, Ewe simply uses the indefinite. Similarly, there is no Type 2 NPI used in yes–no questions, in the complement of 'surprise', in the restriction of a universal quantifier or in the scope of an 'only'-DP.

A simple way to state this difference between Ewe and English is the following:

(50) Parameter C

Standard English: Allows Type 2 (binary NEG) nominal NPIs. Ewe: Disallows Type 2 (binary NEG) nominal NPIs.

We return in Section 12 to facts which ground our caution in limiting this statement about Ewe to nominal NPIs rather than generalizing to all Ewe NPIs.

6. THE REMNANT RAISING CONDITION

One difference between English *any*-NPIs and Ewe *ke*-NPIs is that only *ke*-NPIs can appear in subject position when the NPI 'licenser' is in the same clause (see Agbedor 1994: 56):

- (51) (a) *Anybody didn't come to my house.
 - (b) Ame ádéké mé-vá nyě-afé-me o person any NEG1-come 1SG-house-inside NEG2
 'Nobody came to my house.'

In the CP2014 framework, (51a) would have the following structure:

(52) $[_{DP} [<NEG_1>SOME] body]_2 did NEG_1 [_{VP} come <DP_2> to my house]$

In cases like (52), NEG₁ raises to the post-Aux position, while the remnant DP_2 raises to subject position.

We suggest that these cases are ungrammatical because such remnant raising is barred universally:

(53) The Remnant Raising Condition If $M = [_{DP} [_{D} < NEG_x > SOME] NP]$, then no occurrence of M c-commands an occurrence of NEG_x.

In (52), the higher occurrence of DP_2 c-commands NEG_1 , violating condition (53). This constraint could be thought of as a version of the well-known c-command constraint on NPIs, stated in terms of the framework of CP2014. As will be seen in Section 9, the constraint in (53) also plays a role in accounting for a difference between the behavior of fragment answers in Ewe and English.

The structure of the Ewe sentence in (51b) is given below:

(54) [ame ádé-ké]₂ mé- [vP vá <DP₂> nyě-afé-me person SOME-cNEG₁ NEG₁- come 1SG-house-inside o] NEG₂

Structure (54) does not violate (53) since a copy NEG, $cNEG_1$ rather than $<NEG_1>$ fills the original position of NEG_1 in DP₂. In effect, the copy NEG allows the structure to avoid a violation of (53), just as resumptive pronouns in certain English cases allow a structure to avoid a violation of island constraints.

7. DETERMINER SHARING

As in English, multiple NPIs can appear in a single Ewe clause:

- (55) ame ádéké mé-kpó nánéké o person any NEG₁-see anything NEG₂
 'Nobody saw anything.'
- (56) (a) sukúví ádéké mé-no aha sésế ádéké o student any NEG1-drink drink strong any NEG2
 'No student drank any whiskey.'
 - (b) sukúví ádéké mé-no aha sésế ádéké le ahadzráfé student any NEG1-drink drink strong any at bar ádéké o any NEG2
 'No student drank any whiskey in any bar.'

While (56a) above has two *ke*-NPIs, and (56b) has three, both are interpreted as having one semantic negation. If $-k\dot{e}$ is analyzed as NEG, how can multiple *ke*-NPIs yield only a single semantic negation? CP2014 (Chapter 6) propose that in such cases there is determiner sharing. So in (56a) there is a single underlying determiner [NEG SOME] which is shared by two DPs. Determiner sharing is indicated in (58) below by co-indexation of the two quantifiers and the two NEGs. The single determiner gives rise to two copies of $\dot{a}d\dot{e}k\dot{e}$.

Since there is only one underlying syntactic determiner [NEG SOME], it follows that there is only one semantic negation. CP2014 propose that such determiner sharing is interpreted in terms of polyadic quantification, where a single quantifier quantifies over n-ary sequences. In the case of (56a), where only two DPs share a D, the result is interpreted as: there is no $\langle x,y \rangle x$ a student and y a quantity of whiskey such that x drank y.

Given this background, (55) and (56) raise the question of how NEG₁ can be related to the *-ké* of each *ke*-NPI. Recall that in (31) we assumed that *-ké* is always a copy of a NEG that has raised, repeated below:

(57) The -ké in a ke-NPI is a copy of the original NEG.

We propose that in such cases of multiple ke-NPIs the NEG₁ raises to T from the shared determiner [SOME NEG]. Since the shared determiner has two occurrences (two places in the structure), the result can be represented as follows (ignoring the VP final NEG₂ for the moment):

(58) NEG₁-T sukúví [ádé-ké]₁ no aha sésế [ádé-ké]₁ student SOME₁-cNEG₁ drink drink strong SOME₁-cNEG₁

Representation (58) represents the underlying structure of (56a) before the subject raises to Spec TP (subject position). In (58), NEG₁ undergoes copy raising from the underlying shared D which has two occurrences.

Such raising recalls the phenomenon of Across-the-Board (ATB) extraction illustrated in the sentence *Which plan did Bob buy and Luke sell?* In both ATB *wh*-movement and NEG raising in Ewe, a single raised syntactic object has two underlying occurrences (positions).

8. LONG DISTANCE LICENSING

Ewe *ke*-NPIs need not occur with a CLAUSEMATE preverbal negation. Example (59b) is a response to the assertion in (59a). Example (59c) with clausemate negation is given for comparison. The sentences in (60) provide an additional example.

(59) (a) e-gblo bé Kofí du nú síà nú le dzodófé
 2SG-say that Kofi eat everything at kitchen

'You said that Kofi ate everything in the kitchen.'

- (b) nye-mé gblo bé Kofí du nánéké le dzodófé o
 1SG-NEG₁ say that Kofi eat anything at kitchen NEG₂
 'I didn't say Kofi ate anything in the kitchen.'
- (c) me gblo bé Kofí mé-du nánéké le dzodófé o 1SG say that Kofi NEG₁-eat anything at kitchen NEG₂
 'I said that Kofi did not eat anything in the kitchen.'
- (60) (a) Dě e-gblo bé Kofí fo noví-a nútsu a did you-say that Kofi hit sibling-his male Q'Did you say that Kofi hit his brother?'
 - (b) Ao, nye-mé-gblo bé Kofí fo ame ádéké o no 1SG-NEG₁-say that Kofi hit person any NEG₂
 'I didn't say that Kofi hit anybody.'
 - (c) me-gblo bé Kofí mé-fo ame ádéké o 1sG-say that Kofi NEG₁-hit person any NEG₂
 'I said that Kofi didn't hit anybody.'

Since we are analyzing *ke*-NPIs as Type 1 NPIs, which are the unary NEG NPIs, one might expect the relation between negation and *ke*-NPIs to be clause bounded (see CP2014: Chapter 9 on the clause boundedness of unary NEG NPIs). However, (59) shows that the *ke*-NPI may be separated from its preverbal NEG by a clause boundary.

We propose that such sentences involve high scope of the *ke*-NPI. Before presenting our analysis, we briefly discuss our assumptions about scope. We assume the scope of quantifiers is represented syntactically by the presence of DPs in clausal scope positions. We follow May (1985, 1989) and assume that one such scope position for a quantificational DP_i is of the form [S DP_i S] (and there are other scope positions lower in the clause as well). In these cases, the clause S contains a DP bound by $DP_i = [DP D_i NP]$ so that S is in effect the syntactic representation of an open sentence containing a variable bound by the quantificational DP_i. NP_i then denotes the restriction of the quantifier represented by D_i. So a DP in scope position and a lower one in a non-scope position (an 'argument' position in some approaches).

Given these assumptions, we propose that the structure of (59b) is as in (61a) (ignoring NEG₂ and the adjunct for simplicity), and its interpretation would be as in (61b):

- (61) (a) nye-mé- <[nu-ádé-ké]₂> gblə bé Kofí du DP₂ 1SG-NEG₁- thing-SOME-cNEG₁ say that Kofi eat anything
 - (b) There is nothing that I said that Kofi ate.

In (61a), the higher occurrence of DP_2 in scope position is not pronounced, as indicated by the angled brackets. Since NEG₁ raises to the matrix T from the scope

position of DP_2 , there is no clause boundary separating the scope occurrence of the *ke*-NPI from the raised NEG₁.

Cross-linguistically, unary NEG NPIs are commonly clause-bounded. For example, Serbo-Croatian *ni*-NPIs (which are in many ways similar to Ewe *ke*-NPIs), must in general have a clausemate negation (Progovac 1994: 41). The difference between Ewe and Serbo-Croatian, on our view, is that Serbo-Croatian does not allow its unary NEG NPIs to take matrix scope as in (61).

Our analysis of (59) tracks closely the analysis that CP2014 (Chapter 9) gave of English cases where strict NPIs seem to be separated from their associated NEG by a clause boundary, illustrated in (62):

(62) Andrew didn't claim that Carl said jackshit_A about compilers.

Example (62) shows that although *jackshit*_A is a strict NPI, if stressed, it can link to a non-clausemate negation. CP2014 propose that the DP *jackshit*_A in (62) has matrix scope and that NEG raising takes place from the scope occurrence of *jackshit*_A in the matrix clause. That analysis is entirely parallel to the one just given for the Ewe data in (59).

9. BIPARTITE NEGATION: ANALYSIS

The goal of this section is to explain the syntactic relationship between NEG_1 and NEG_2 in cases like (63).

 (63) Kofí mé-kpó ame ádéké o Kofi NEG₁-see person any NEG₂
 'Kofi didn't see anybody.'

First, we argue that in any clause containing both negation markers, the post-VP o is structurally higher than the preverbal $m\dot{e}$ -. The argument is based on ellipsis involving Ewe NPIs.

In (64), the response phrase is an object. (64b) is a fragment answer to the question in (64a), while (64c) is the non-elliptical form.

- (64) (a) ame ka-é ne-kpô person which-FOC 2SG-see 'Who did you see?'
 - (b) ame ádéké *(o) person any NEG₂
 'Nobody.'
 - (c) nye-mé-kpó ame ádéké o
 1 SG-NEG₁-see person any NEG₂
 'I didn't see anybody.'

In the following examples, the response phrase is again an object, but with the question phrase $n\hat{u}$ ka 'what':

- (65) (a) nú ka-é ne-wo thing which-FOC 2SG-do 'What did you do?'
 - (b) nánéké *(o) anything NEG₂'Nothing.'
 - (c) nye-mé-wo nánéké o
 1SG-NEG1-do anything NEG2
 'I didn't do anything.'

In the following examples, the response phrase is a subject:

- (66) (a) ame ka-é tsó nyě ga person which-FOC take 1SG money 'Who took my money?'
 - (b) ame ádéké *(o) person any NEG₂ 'Nobody.'
 - (c) ame ádéké mé-tsó wŏ ga o person any NEG₁-take 2SG money NEG₂
 'Nobody took your money.'

In the following examples, the response phrase is a locative:

- (67) (a) afí ka-é ne-yi place which-FOC 2SG-go 'Where did you go?'
 - (b) afí ádéké *(o) place any NEG₂ 'Nowhere.'
 - (c) nye-mé-yi afí ádéké o
 1SG-NEG₁-go place any NEG₂
 'I didn't go anywhere.'

In all the elliptical examples above, the presence of NEG₂ o is obligatory. We propose a deletion analysis of these facts. In particular, we follow the treatment of sluicing proposed in Ross (1969) and defended in Merchant (2001) (see also Merchant 2004). Consider the following English sluicing example:

(68) John saw something. I don't know what.

According to Ross (1969) and Merchant (2001), the second clause of (68) has the following analysis:

(69) I don't know what₁ <[$_{TP}$ John saw t₁]>

In this sentence, *what* raises to the left periphery (Spec CP) and the TP is deleted (as indicated by the angled brackets). In the analysis of Merchant (2001), the deletion of the TP happens under semantic identity with the TP in the first clause in (68). See Merchant (2001) for the exact definition of semantic identity.

Transposing Ross' and Merchant's analyses to the relevant Ewe facts yields the following structure for (64b):

(70) [ame $\acute{a}d\acute{e}k\acute{e}]_1 <$ [TP nye-mé-kp \acute{o} <DP₁>]> o person any 1SG-NEG₁-see NEG₂

In (70), the DP [ame $\dot{a}\dot{d}\dot{e}\dot{k}\dot{e}$]₁ raises to the left periphery and the TP remnant is deleted. Crucially, NEG₁ is deleted, but NEG₂ is not. This supports the claim that NEG₂ is higher than NEG₁. If, on the contrary, NEG₁ were higher than NEG₂, it would be possible for NEG₂ to be deleted, leaving NEG₁. See Aboh (2010: 131) for a different argument reaching a similar conclusion about the relative height of NEG₁ and NEG₂.

An analysis of fragment answers parallel to that in (70) can also explain why an NPI cannot serve as an answer to an English *wh*-question, although an overtly negative DP can:

- (71) (a) Who did you see?
 - (b) *Anybody.
 - (c) Nobody.

On the analysis of CP2014, the structure of the NPI DP in (71b) would be the following:

(72) $[[\langle NEG_1 \rangle SOME] body]_2 \langle [TP I NEG_1 saw DP_2] \rangle$

In this structure, NEG₁ raises to the post-Aux position, then remnant $[[<NEG_1>SOME] body]_1$ raises to the left periphery. Finally, TP is deleted. This structure violates the Remnant Raising Condition in (53), since $[[<NEG_1>SOME] body]_2$ c-commands NEG₁.

Haspelmath (2000: 194–196, citing earlier work by Bernini & Ramat 1996), Watanabe (2004: 562) and Giannakidou (2006: 328) take fragment answers to distinguish n-words (or negative concord items) from negative polarity items. N-words but not negative polarity items can be used as fragment answers. This distinction is clearly illustrated in (71), where, for us, *nobody* is analyzed as [[NEG SOME] body], with the NEG remaining in situ, precluding any violation of the Remnant Raising Condition.

Consider what such a diagnostic says about Ewe, where *ke*-NPIs must be accompanied by NEG₂. In this respect, *ke*-NPIs are unlike n-words in other languages (such as Italian), where no such negative particle is needed in addition to the n-word itself in fragment answers.

However, Ewe *ke*-NPIs pattern like n-words with respect to other criteria For example, they can, unlike English NPIs, appear in subject position (see Watanabe 2004: 562 on the use of n-words in subject position).

For purposes of language classification, Ewe *ke*-NPIs are NPIs since they are sensitive to negation but they also have some properties of n-words (such as being able to be used in subject position).

In the framework of CP2014, the distinction between NPIs and n-words can be captured as follows. Unary NEG NPIs are unary NEG structures from which the NEG raises and leaves a gap. N-words are unary NEG structures where either the NEG does not raise or where it raises and leaves a copy (instead of a gap).

So here are the assumptions made so far about bi-partite negation in Ewe sentences like (63):

- (73) (a) Even though there are three occurrences of NEG (preverbal $m\acute{e}$, NPI- $k\acute{e}$ and post-VP o), there is only one semantic negation.
 - (b) $-k\acute{e}$ is a copy left by raising of NEG₁ to adjoin to T.
 - (c) NEG₂ is higher in the structure than NEG₁.

We propose that NEG_1 is also a copy, left by movement of NEG_2 to a right peripheral position in the clause. In particular, we will assume that there is a rightward complementizer position COMP and that NEG_2 raises and adjoins to this position. The resulting analysis of (63) is sketched below:

On this analysis, there is only one underlying NEG, which originates in a position where it modifies SOME. NEG raises to T and leaves a copy in D. Further, NEG raises again to COMP, leaving a copy in T. So NEG raises twice, leaving copies in two distinct positions. But the NEG is only interpreted in its underlying (SOME modification) position.

This treatment explains why there are three surface occurrences of NEG, but only one semantic negation. A structure illustrating this analysis is given below:



What remains to explain is the presence of bipartite negation in sentences that do not involve *ke*-NPIs, such as the examples in (3). Discussion of that requires a bit of background about so-called event semantics.

10. Event syntax

Consider the following simple English sentence involving no NPIs:

(76) Susan sang.

Example (76) can be represented in predicate logic in terms of quantification over an event (we leave out reference to time). See Davidson (1967) and Maienborn (2011) for more recent discussion:

(77) ∃e.sing(e, Susan)'There is an event e such that e is a singing event and Susan is the singer in that event.'

Critically, we adopt a syntactic version of this hypothesis, containing a covert quantifier DP, which ranges over events (see Beghelli & Stowell (1997: 93) for a related proposal).

(78) $[<[SOME EVENT]_1> [Susan sang DP_1]]$

On this view, a silent quantificational occurrence of DP_1 binds an occurrence of DP_1 which is interpreted as a variable. The noun EVENT as well as the quantifier SOME are silent. We do not take any stand on the exact location of the event variable DP_1 . We only assume that the scope position of the quantificational DP_1 must c-command its variable occurrence.

On the Davidsonian view, the negative sentence (79a) would have the semantic representation in (79b).

- (79) (a) Susan did not sing.
 - (b) $\neg \exists e.sing(e, Susan)$

In other words, (79) represents negation of an existential quantification. In the framework of CP2014, negated existential quantifiers have syntactic representations like that of (80):

(80) no boy = [[NEG SOME] boy]

Here NEG is realized as *no* and SOME is covert. So (79a) would be represented with a negated existential quantifier over events, as follows:

(81) $[\langle DP [\langle NEG_1 \rangle SOME] EVENT]_1 \rangle [Susan NEG_1 sing DP_1]]$

An issue that (81) brings up is that NEG has raised to Aux from the clause initial $[_{DP} [<NEG> SOME] EVENT]$ violating (53), the Remnant Raising Condition. Given this consideration, a more adequate representation of (79a) would be (82):

(82) $[_{TP} Susan did NEG_1 [_{VP} < [_{DP} [< NEG_1 > SOME] EVENT]_1 > [_{VP} sing DP_1]]]$

Here [$_{DP}$ [<NEG₁> SOME] EVENT] is in a low scope position (perhaps adjoined to VP), and NEG₁ raises to Aux, which c-commands the low scope position; see CP2014 on this use of low scope positions, and the relation between NEG raising and scope. In other words, the event quantifier DP has scope lower than the overt occurrence of NEG in the post-Aux position.

11. BIPARTITE NEGATION AND EVENT SYNTAX

We can now analyze Ewe sentences not containing any *ke*-NPIs which manifest bipartite negation such as (3a), repeated below:

(83) Kofí mé- du nú o
 Kofi NEG₁- eat thing NEG₂
 'Kofi didn't eat.'

If in (83) NEG₁ occurs in the preverbal position as the result of NEG raising, what is the source of NEG₁? Analogizing from the account of English in Section 10, we propose that (83) contains a silent event quantifier DP, and that the NEG raises from this quantifier DP to T, as shown below (ignoring the post-VP NEG for the moment):

(84) Kofí mé- [$_{VP}$ du nú [EVENT [SOME cNEG_1]]] NEG₁ eat thing

But the diagram is misleading in one important way. In a completely filled out analysis, NEG_1 would raise from the scope position of the event quantifier, not the in-situ position (see CP2014: Chapter 5 for discussion). We leave out the representation of scope positions here for the sake of readability. A diagram for this analysis is as follows:



In (85) NEG raises from D to T, and then from T to C. See Aboh (2010) who discusses C positions in the Gbe languages.

12. NON-KE-NPIS IN EWE

So far we have focused on Ewe *ke*-NPIs. In this section, we investigate three other NPIs, *hadé* 'yet', *kúrá* 'at all', and *gbedé* 'ever', none of which involve the morpheme -*ké*.

Example (86a) shows that *hadé* 'yet' can appear with negation, while (86b) illustrates that it cannot appear in a positive declarative clause:

(86) (a) nye-mé-kpó-e hadé o NEG1-1SG-see-3SG yet NEG2
'I haven't seen him yet.'

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(b) *me-kpó-e hadé 1sG-see-3sG yet

However, unlike *ke*-NPIs, *hadé* 'yet' does occur in the non-negative context of yes–no questions:

- (87) (a) e-kpó Kofí hadé a 2sG-see-3sG Kofi yet Q
 'Have you seen Kofi yet?'
 - (b) e-du nú hadé a 2sG-eat thing yet Q 'Did you eat yet?'

But even though hadé 'yet' appears in yes-no questions, it does not appear in conditionals, with the verb meaning 'surprise', in the restriction of a universal quantifier or with 'only'-DPs, as shown below. Note that English *yet* is also unacceptable in the corresponding contexts.

- (88) (a) né Kofí dzó (*hadé) lá, gblo-e ná-m if Kofi leave yet TP tell-3SG to-me 'If Kofi has left, tell me.'
 - (b) é-wo ŋku ná-m bé Kofí dzó (*hadé)
 3sG-do surprise to-me that Kofi leave yet
 'It surprises me that Kofi has left.'
 - (c) ame síà ame si dzó (xó, *hadé) lá le afíma everybody which leave already yet TP COP there 'Everybody who has left is there.'
 - (d) Kofí ko-é dzó (*hadé) Kofi only-FOC leave 'Only Kofi has left.'

Like ke-NPIs, hadé 'yet' can appear as a fragment answer to a yes-no question:

- (89) (a) e-du nú a 2sG-eat thing Q 'Did you eat?'
 - (b) hadé *(o) yet NEG₂ 'Not yet.'
 - (c) nye-mé-du nú hadé o
 1SG-NEG₁-eat thing yet NEG₂
 'I didn't eat yet.'

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Consider now the NPI $k \hat{u} r \hat{a}$ 'at all'. (90a) shows that $k \hat{u} r \hat{a}$ can appear with negation, while (90b) indicates that it cannot appear in a positive declarative clause following the object. But example (90c) shows that $k \hat{u} r \hat{a}$ can be used following the subject, where it translates as 'even'. We have not investigated this usage.

- (90) (a) nye-mé lõ Kofí kúrá o 1SG-NEG₁ like Kofi at.all NEG₂
 'I don't like Kofi at all.'
 - (b) *me lõ Kofí kúrá 1SG like Kofi at.all
 - (c) Áma kúrá lõ Kofí Ama even likes Kofi
 'Even Ama likes Kofi.'
 ('It is quite difficult for Ama to like people.')

Given further linguistic context, *kúrá* can follow the direct object. We have not investigated this usage either:

(91) me lõ Kofí kúrá hafí wo-le nye dzu-mí 1SG like Kofi even before 3SG-COP 1SG insult-PROG Lit.: 'I even like Kofi before he is insulting me.'
'I like Kofi even though he is insulting me.' Context: I saw Kofi and I wanted to greet him, and he started insulting me.

Just as with English at all, kúrá often appears following other NPIs:

(92) ... ye-mé-kpó nánéké kúrá le fóto-á me o 3SG-NEG1-see anything at.all LOC photo-DEF in NEG2
'... he didn't see anything at all in the photograph.'

(Akafia 1970: 17)

Like *hadé* 'yet' it can appear in the non-negative context of a yes-no question:

- (93) (a) Áma lõ Kofí kúrá a Ama love Kofi at.all Q
 'Does Ama like Kofi at all?' (Context: Ama has been doing something bad to Kofi.)
 - (b) Áma se nú-ma gome kúrá a Ama hear thing-that under at.all Q'Does she understand that at all?'

Furthermore $k\hat{u}r\hat{a}$ 'at all' cannot occur in other NPI environments, such as in conditional clauses, the complement of 'surprise', the restriction of 'every' and in the scope of 'only'-DPs:

- (94) (a) né e-lõ-na Áma (*kúrá) lá, fo nu nê if 2sG-like-HAB Ama at.all TP hit mouth to.3sG
 'If you like Ama at all, talk to her.'
 - (b) é-wo ŋku ná-m bé Áma lõ Kofí (*kúrá) 3sG-do surprise to-1sG that Ama like Kofi at.all 'It surprise me that Ama likes Kofi.'
 - (c) ame síà ame si lõ Kofí (*kúrá) lá le afísia everybody who likes Kofi at.all TP COP here 'Everybody who likes Kofi is here.'
 - (d) Áma ko-é lõ Kofí (*kúrá) Ama only-FOC likes Kofi at.all
 'Only Ama likes Kofi.'

Like the ke-NPIs, kúrá can be used in a fragment answer to a question:

- (95) (a) e-lõ Kofí a 2sG-like Kofi Q 'Do you like Kofi?'
 - (b) kúrá o at.all NEG2'Not at all.'
 - (c) nye-mé lõ Kofí kúrá o
 1SG-NEG₁ like Kofi at.all NEG₂
 'I don't like Kofi at all.'

Lastly, example (96a) shows that the NPI *gbedé* 'ever' can appear with negation, while (96b) illustrates an often used reduplicated form *gbedé gbedé*. (96c) shows that this NPI cannot appear in a positive declarative clause. Examples (97a, b) provide additional illustration:

- (96) (a) nye-mé-á yi China (kpó) gbedé o 1SG-NEG₁-FUT go China one.time ever NEG₂
 'I will never go to China.'
 - (b) nye-mé-á yi China gbedé gbedé o
 1SG-NEG1-FUT go China ever ever NEG2
 'I will never go to China.'
 - (c) *me-á yi China (kpó) gbedé 1SG-FUT go China one.time ever

- (97) (a) Kofí mé-wɔ-a é-fé aféme-dó gbedé o Kofi NEG1-do-HAB 3SG-POSS home-work ever NEG2
 'Kofi never does his homework.'
 - (b) *Kofí wɔ-a e-fé aféme-dó gbedé Kofi do-HAB 3SG-POSS home-work ever

Just like the previous two NPIs, *gbedé* occurs in yes–no questions. For reasons unclear to us, it only occurs in this context in the presence of kpj one time' which is itself not an NPI; see Rongier (1989: 212), and example (28) above:

(98) (a) a yi China gbe deká a 2SG.FUT go China day one Q
'Will you go to China one?'
(b) *a yi China gbedé a 2SG.FUT go China ever Q
(c) a yi China kpó gbedé a 2SG.FUT go China one.time ever Q
'Will you ever go to China?'

Like the other NPIs discussed in this section *gbedé* 'ever' does not appear in other NPI contexts, such as conditionals, the complement of 'surprise', the restriction of 'every' or the scope of 'only'-DPs:

- (99) (a) né e-vi China (*gbedé, *kpó gbedé) 1á. if 2sG-go China ever one.time ever TP a-srấ China-gbe 2SG.FUT-learn China-language 'If you go to China, you will learn Chinese.' (b) é-wo ηku ná-m bé 3sG-do surprise to-me that China (*gbedé, *kpó gbedé) a-vi 2SG.FUT-go China ever one.time ever 'It surprises me that you will go to China.' yi China (*gbede, *kpó gbede) (c) ame síà ame si
 - everybody which go China ever one.time ever TP á-srɔ̃ China-gbe 3SG.FUT-learn China-language 'Everybody who goes to China will learn Chinese.

lá.

 (d) Kofí ko-é á-yi China (*gbedé, *kp5 gbedé) Kofi only-FOC FUT-go China ever one.time ever
 'Only Kofi will go to China.' But like *ke*-NPIs, *gbedé* 'ever' can be used as a fragment answer to a question. However, *gbedé* 'ever' is different from all other Ewe NPIs in that NEG₂ is optional in the fragment answer.

- (100) (a) e-dí bé ye-á-yi China a 2SG-want that LOG-FUT-go China Q 'Do you want to go to China?
 - (b) gbedé (o) ever NEG₂ 'Never.'
 - (c) nye-mé-á-yi China gbedé o 1SG-NEG-FUT-go China ever NEG₂

Ameka (1991: 691) proposes that *gbedé* can be used either adverbially or as a 'completive signal', which is used to express disagreement or rejection of a proposition. Without going into syntactic detail, we propose that when NEG₂ is present in (100b), *gbedé* is an adverbial NPI. When NEG₂ is absent, it is a completive signal.

The data in (86)–(100) support the following generalization:

(101) An NPI in Ewe may appear in a yes-no question unaccompanied by a preverbal NEG iff it is not a *ke*-NPI.

The data concerning Ewe non-*ke*-NPIs are difficult to account for because their distribution characteristics differ both from those of *ke*-NPIs and from those of English Type 2 *any*-NPIs. *Ke*-NPIs only occur in sentences having a preverbal negation. But non-*ke*-NPIs are not subject to such a stringent requirement. However, they are far more restricted than English Type 2 *any*-NPIs.

If Ewe non-*ke*-NPIs were unary NEG NPIs, then that would explain why they do not appear in conditionals, with 'surprise', 'every' or 'only'-DPs. However, it would leave unexplained the fact that they can appear in yes–no questions lacking an overt NEG.

If non-*ke*-NPIs were Type 2 NPIs (binary NEG NPIs in the framework of CP2014), then that would explain why they occur in yes–no questions (with no overt NEG present), but would leave unexplained the fact that they do not occur in conditionals or with 'surprise', 'every' or 'only'-DPs.

Unfortunately, our limited research on Ewe NPIs does not permit us to offer a justified hypothesis as to whether Ewe non-*ke*-NPIs are property analyzed as Type 1 or Type 2 NPIs or perhaps even as some third category not posited in the framework of CP2014.

13. CONCLUSION

We have shown that Ewe *ke*-NPIs correspond to Type 1 NPIs (unary NEG NPIs). But we must leave open whether Ewe non-*ke*-NPIs are Type 1 or Type 2 NPIs or

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some third category. That aside, we have argued that the differences between Ewe and English can be characterized in terms of the following three parameters:

(102) Parameter A

Standard English: NEG raising from a unary NEG structure does not leave a copy.

Ewe: NEG raising from a unary NEG structure leaves a copy.

(103) Parameter B

Standard English: NEG optionally raises from a unary NEG structure. Ewe: NEG obligatorily raises from a unary NEG structure.

(104) Parameter C

Standard English: Allows Type 2 (binary NEG) nominal NPIs. Ewe: Disallows Type 2 (binary NEG) nominal NPIs.

Other languages arguably fall into the classification made available by these parameters. For example, one can analyze Serbo-Croatian as a language where NEG raising from nominal NPIs is obligatory and always leaves a copy. However, Serbo-Croatian has clear nominal Type 2 NPIs. See Progovac (1994) for an overview and Collins & Postal (2017) for a treatment of the Serbo-Croatian facts in the framework of CP2014 and the present paper.

We take the analysis of Ewe nominal NPIs we have presented to strongly support the basic assumptions about NPIs in CP2014. There it is argued that English NPIs are all initially negative expressions which fall into two classes: unary NEG NPIs and binary NEG NPIs. The negative character of both types of NPI is, as it were, disguised by the fact that the defining NEGs are either raised away or deleted. In Ewe, it is arguably clearer that *ke*-NPIs are negative expressions.

Based on that view, we advanced a raising and resumptive NEG view of sentences with *ke*-NPIs, providing specifically a treatment of the so-called bipartite negation property of this language. We also explicated a view of how multiple *ke*-NPIs in the same clause can yield only a single semantic negation, a view based on syntactic determiner sharing and semantic polyadic quantification.

Further, it was concluded that binary NEG nominal NPIs do not exist in Ewe. A reviewer suggested the possible hypothesis that a language having binary NEG nominal NPIs will also have unary NEG nominal NPIs, a speculation we think worth pursuing but cannot offer anything further about here. The facts in Ewe evidently show in our terms that the converse implicational relation does not hold.

Finally, we documented the existence of three adverbial NPIs in Ewe whose status in terms of the NPI framework of CP2014, Collins & Postal (2017) and the present paper is unresolved. They might be binary NPIs or unary NPIs, or some subcategory of NPI not recognized in the present framework. Only further research can clarify this matter.

REFERENCES

- Aboh, Enoch. 2010. C-type negation markers on the right edge. In Enoch O. Aboh & James Essegbey (eds.), *Topics in Kwa syntax*, 109–139. Amsterdam: Springer.
- Agbedor, Paul. 1994. Negation in Ewe. Working Papers of the Linguistic Circle 12, 55–73. Victoria, BC: University of Victoria.
- Akafia, Seth Y. 1970. Ku le Xome. Accra: Bureau of Ghana Languages.
- Ameka, Felix. 1991. *Ewe: Its grammatical constructions and illocutionary devices*. Ph.D. dissertation, Australian National University.
- Beghelli, Filippo & Tim Stowell. 1997. Distributivity and negation: The syntax of *each* and *every*. In Anna Szabolcsi (ed.), *Ways of taking scope*, 71–107. Dordrecht: Kluwer.
- Bell, Arthur. 2004. *Bipartite negation and the fine structure of the Negative Phrase*. Ph.D. dissertation, Cornell University.
- Bernini, Giuliano & Paolo Ramat. 1996. Negative sentences in the languages of Europe: A typological approach. Berlin: Mouton de Gruyter.
- Blanchette, Frances. 2015. *English negative concord, negative polarity, and double negation*. Ph.D. dissertation, City University of New York Graduate Center.

Collins, Chris & Paul M. Postal. 2014. Classical NEG raising. Cambridge, MA: MIT Press.

- Collins, Chris & Paul M. Postal. 2017. NEG raising and Serbo-Croatian NPIs. Canadian Journal of Linguistics 62.3. [doi:https://doi.org/10.1017/cnj.2017.2, published online 26 January 2017]
- Davidson, Donald. 1967. The logical form of action sentences. In Nicholas Rescher (ed.), *The logic of decision and action*, 81–95. Pittsburgh, PA: University of Pittsburgh Press.
- De Swart, Henriëtte & Ivan A. Sag. 2002. Negation and negative concord in Romance. *Linguistics and Philosophy* 25, 373–417.
- Giannakidou, Anastasia. 1998. Polarity sensitivity as (non)veridical dependency. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 2000. Negative ... concord? *Natural Language & Linguistic Theory* 18, 457–523.
- Giannakidou, Anastasia. 2006. N-words and negative concord. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell companion to syntax*, vol. III, 327–391. Oxford: Blackwell.
- Giannakidou, Anastasia. 2011. Positive polarity items and negative polarity items: Variation, licensing, and compositionality. In Maienborn et al. (eds.), 1660–1712.
- Haegeman, Liliane. 1995. The syntax of negation. Cambridge: Cambridge University Press.
- Haegeman, Liliane. 1997. The syntax of n-words and the Neg Criterion. In Danielle Forget, Paul Hirschbühler, France Martineau & María Luisa Rivero (eds.), *Negation and polarity: Syntax and semantics*, 115–137. Amsterdam: John Benjamins.
- Haegeman, Liliane & Raffaella Zanuttini. 1991. Negative heads and the Neg Criterion. *The Linguistic Review* 8, 233–251.
- Haegeman, Liliane & Raffaella Zanuttini. 1996. Negative concord in West Flemish. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and functional heads*, 117–179. Oxford: Oxford University Press.
- Haspelmath, Martin. 2000. Indefinite pronouns. Oxford: Oxford University Press.
- Horn, Laurence R. 2016. Licensing NPIs: Some negative (and positive) results. In Pierre Larrivée & Chungman Lee (eds.), *Negation and polarity: Experimental perspectives*, 281–305. Berlin: Springer.
- Kayne, Richard S. 1994. The antisymmetry of syntax. Cambridge, MA: MIT Press.
- Ladusaw, William A. 1979. *Polarity sensitivity as inherent scope relations*. Ph.D. dissertation, The University of Texas at Austin. [Published 1980, New York, Garland Press]
- Ladusaw, William A. 1992. Expressing negation. In Chris Barker & David Dowty (eds.), Second Conference on Semantics and Linguistic Theory (SALT II) (Working Papers in Linguistics 40), 237–259. Columbus, OH: The Ohio State University, Department of Linguistics.
- Ladusaw, William A. 1996. Negation and polarity items. In Shalom Lappin (ed.), The handbook of contemporary semantic theory, 321–341. Oxford: Blackwell.

Linebarger, Marcia. 1980. The grammar of negative polarity. Ph.D. dissertation, MIT.

Maienborn, Claudia. 2011. Event semantics. In Maienborn et al. (eds.), 802-829.

Maienborn, Claudia, Klaus von Heusinger & Paul Portner (eds.). 2011. Semantics: An international handbook of natural language meaning. Berlin: De Gruyter.

Linebarger, Marcia. 1987. Negative polarity and grammatical representation. *Linguistics and Philosophy* 10, 325–387.

NEGATIVE POLARITY ITEMS IN EWE

May, Robert. 1985. Logical form: Its structure and derivation. Cambridge, MA: MIT Press.

May, Robert. 1989. Interpreting logical form. Linguistics and Philosophy 12, 387-435.

Merchant, Jason. 2001. The syntax of silence. Oxford: Oxford University Press.

Merchant, Jason. 2004. Fragments and ellipsis. Linguistics and Philosophy 27, 661-738.

Postal, Paul M. 2004. Skeptical linguistic essays. New York: Oxford University Press.

Progovac, Ljiljana. 1994. Negative and positive polarity: A Binding approach. Cambridge: Cambridge University Press.

Rongier, Jacques. 1988. Apprenons L'Ewe: Miasrõ Evegbe, vol. 1. Paris: Éditions L'Harmattan.

Rongier, Jacques. 1989. Apprenons L'Ewe: Miasrõ Evegbe, vol. 2. Paris: Éditions L'Harmattan.

- Ross, John Robert. 1969. Guess who? In Robert I. Binnick, Alice Davison, Georgia M. Green & Jerry M. Morgan (eds.), *Papers from the Fifth Regional Meeting of the Chicago Linguistic Society* (CLS 5), 252–278. Chicago, IL: The University of Chicago, Chicago Linguistic Society.
- Watanabe, Akira. 2004. The genesis of negative concord: Syntax and morphology of negative doubling. *Linguistic Inquiry* 35, 559–612.

Westermann, Diedrich. 1930. A study of the Ewe language. London: Oxford University Press.

Zanuttini, Raffaella. 1997. Negation and clausal structure: A comparative study of Romance languages. Oxford: Oxford University Press.

Zeijlstra, Hedde. 2004. Sentential negation and negative concord. Utrecht: Lot.

- Zeijlstra, Hedde. 2007. Negation in natural language: On the form and meaning of negative elements. *Language and Linguistics Compass* 1, 498–518.
- Zwarts, Frans. 1998. Three types of polarity. In Fritz Hamm & Erhard Hinrichs (eds.), *Plurality and quantification*. Dordrecht: Kluwer.
- Zwarts, Frans. 1999. Polarity items. In Keith Brown & Jim Miller (eds.), Concise encyclopedia of grammatical categories, 295–300. New York: Elsevier.

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