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ÜLEŞTİRME BELİRTİCİLERİ ÇALIŞMASINA BİR AMPİRİK KATKI: KOSOVA ARNAVUTÇASI KANITI

Öz

Diller, üleştirmenin farklı belirticileriyle üleştirme okumalarını iletmenin farklı yollarına sahiptir. Ayrıca ‘üleştirme sayıları’ olarak da bilinirler ve kökleri klasik dilbilgisi ve filolojik çalışmalarında bulunur; Gil (1982a) bunları “Üleştirme Sayıları” başlıklı doktora tezi ile resmi dilbilim ile tanıştırmıştır. Çalışmamız, üleştirme-okuma yapısında ‘Üleşmek’ unsurunda bulunan Kosova Arnavutçasının ‘nga’ morfeminin ayrıntılı açıklamasını sunmaktadır.

Kosova’da konuşulan Arnavutça, kuzey Geg lehçesine dayanarak, standart Arnavutçadan oldukça farklı olması sebebiyle, çalışmamızın amacı haline getirilmiştir. Öncelikle, bu araştırmamız mevcut dilbilimsel üleştirme

teorilerinin birkaçını sunmaktadır (Gil 1982a, 1982b, 1988, 2005, Choe 1987, 1991, Farkas 1997, Cable 2014, Kuhn 2019). Bu teorilere dayanarak, Arnavutçadaki 'nga'-belirtici üzerindeki morfolojik, sözdizimsel ve yorumlayıcı kısıtlamaları araştırıp, gözlemlenen özelliklerle tutarlı olarak bu morfemin sözdizimsel analizini önermekteyiz.

Tanımlayıcı sonuçlarımız Choe ve Farkas'ın teorileri tarafından bir bütün olarak doğru bir şekilde öngörülse de dikkate değer bazı ampirik ayrıntı içerir. Ayrıca Gürcü (Gil)'de ve Macar (Farkas)'da aynı şekilde varsayımımıza göre Arnavutçada başlatılan, özelleştirilmiş ön belirleyici olarak Üleştirme markajında, bir üleştirme-işaretleme stratejisi olarak tanımlanan tekrar arasında bazı mukayeseleri ortaya çıkarır.

Bu nedenle çalışmamız, doğal dillerde üleştirme ve üleştirme belirticisi üzerine daha fazla teorik ve karşılaştırmalı çalışmalar için bir temel sağlamaktadır.

Anahtar kelimeler: üleştirme belirticisi, belirsiz belirleyici öbeği, biçim-sözdizimi, anlambilim, Kosova Arnavutçası

AN EMPIRICAL CONTRIBUTION TO THE STUDY OF DISTRIBUTIVITY MARKERS: EVIDENCE FROM KOSOVO ALBANIAN

Abstract

Languages have different ways of conveying distributive readings with different markers of distributivity. They are also known as 'distributive numerals' and they have their roots in classical grammatical and philological studies; Gil (1982a) introduced them into formal linguistics through his doctoral thesis entitled "Distributive Numerals". This article presents a detailed description of the Kosovo Albanian morpheme *nga* occurring on the 'Share' constituent in a distributive-read construction.

Spoken Albanian in Kosovo – being steeped in the northern Gheg dialect, differs considerably from Standard Albanian -- has been made the object of this study. At the outset, this research article offers an account of available linguistic theories of distributivity (Gil 1982a, 1982b, 1988, 2005, Choe 1987, 1991, Farkas 1997, Cable 2014, Kuhn 2019). Drawing on these theories, we explore the morphological, syntactic and interpretive constraints bearing on the *nga*-marker in Albanian, and propose a syntactic analysis of this morpheme consistent with the observed properties.

Although our descriptive results are as a whole correctly predicted by Choe's and Farkas's theories, they include a number of noteworthy empirical details and bring out some contrasts between reduplication, described as a distributive-marking strategy in Georgian (Gil) and Hungarian (Farkas), and Share marking by a specialized pre-determiner, as instantiated in Albanian, under our own assumptions.

This study should thus provide a basis for further theoretical and comparative works on distributivity and distributive marking in natural languages.

Keywords: distributive marker, indefinite DPs, morphosyntaxe, semantic, Kosovo Albanian.

1. Introduction: background assumptions on distributivity

The primary goal of this article is descriptive: we want to bring out the morphological, syntactic and interpretive properties of the morpheme *nga* occurring as a *Share* distributivity marker in Kosovo Albanian (KA)¹.

A prototypical illustration of what is commonly known as the distributive interpretation (cf., a.o., Corblin 1987, 2006, Dobrovie-Sorin & Beyssade 2004 on indefinites) is the English sentences in (1), interpreted as in (1a-ii) or (1b-ii):

(1) a. Every girl read *a book*.

(i) 'There is one book which every girl read.'

(ii) 'For every girl there is a book which she read.'

b. The girls read *a book*.

(i) 'There is one book which {every girl read separately/the group of girls read together}.'

(ii) 'For every girl, there is some book which she read.'

These two sentences are ambiguous between a reading or group of readings glossed in (1a-i), (1b-i), involving wide scope for the italicised indefinite, and a reading (glossed in (1a-ii), (1b-ii)) involving narrow scope for the indefinite. Under this latter reading, but not under the former, there is a *distributive* effect, viz. a dependency relation between the denotation of the indefinite object, and that of the quantified subject: we understand that the nature of the Book referent co-varies with that of the Girl referent. One point which deserves mentioning is that under the distributive interpretation, the plural subject in (1b) must be read as quantified, thus as a set of individual entities acting separately, not as a group of people acting collectively and thus forming a unit: if *the girls* denotes a group in (1b), the indefinite object is assigned wide scope, giving rise to one of the

¹ As for any standardised language, the grammar of Albanian which is represented in available textbooks and linguistic works (cf. Agalliu et al. 2002, Boissin 1975, Celiku et al. 1998, Gut et al. 1999, Demiraj 1972, 1975, 2002, Agaliu 1980, Përnaska 1997, Kallulli 1995, 1999, 2000, 2001, 2004, 2005, Topalli 2009), is that of Standard Albanian (SA), which is taught in schools and used in formal writing in all parts of Albania and Kosovo. However, the Albanian-speaking co-author of this article acquired Albanian in Pristina (Kosovo), where the informal spoken language (Kosovo Albanian: KA), an variety of the Gheg dialect, differs in various respects from Standard Albanian: for instance, clitic anticipation of nonprepositional objects is more generalised in KA than in SA; the morphology of participles is different (e.g. the participle of the verb meaning 'to speak' is *folur* in SA, *fol* in KA); the form of the 'infinitive' is different (e.g. 'in order to speak' translates as *per të folur* in SA, *me fol* in KA). Since Standard grammars of Albanian provide no complete description of distributive *nga*, we had to solicit intuitions from native speakers in order to do this work. And since all our consultants, as well as the Albanian-speaking co-signer of this article, being from Kosovo, activate their KA grammar in their linguistic assessments, we decided to overtly acknowledge the KA flavour of our data by consistently selecting the KA (rather than SA) option for every dialectal variable occurring in our examples: in particular, all participles and infinitives appear in their KA form, and clitic anticipation is generalised (a KA feature). We thus leave it as open issues whether dialectal Albanian varieties distinct from KA might contrast with KA with respect to the grammar of distributive marking, and if such were the case, which grammar of distributive marking should be acknowledged as Standard for Albanian. For some information about dialectal variation in Albanian, cf. Gut & al. (1999), Halimi (2001), and especially Beci (2002).

readings glossed in (1b-i)). Gil (1982a, 1982b, 1988, and 2005), Choe (1987, 1991), Farkas (1997) and Zimmermann (2002) analyse distributivity as a semantic dependency between two quantified expressions within a clause, one of which is necessarily indefinite. Choe analyses the relation as involving two *co-arguments*, while Farkas emphasises the fact that each of the two expressions must contain a semantic variable — one of which (the one introduced by the indefinite) is dependent on the other. Choe (1987: 91) respectively names the two terms of the distributive relation the *Sorting Key* and the *Distributive Share*, two terms which Gil (1988, 2005) simplifies to *Key* and *Share*: thus in the above examples, interpreted as in (1a-ii) or (1b-ii), the Key constituent is the quantified subject, and the Share constituent is the object *a book* — the dependent indefinite. In the English examples in (1), distributivity is morphologically unmarked — it is but an interpretive option for *a priori* ambiguous sentences. Sentences may however contain *distributivity markers*, e.g. lexical triggers which force a distributive reading to arise. As regards English, Choe (1991) for instance mentions the adverbial *a piece*, and the floating quantifier *each* as distributivity markers, since sentences which contain them are unambiguously construed as distributive:

- (2) a. The girls read a book *a piece*.
 b. The girls read a book *each*.

Choe (1987, 1991) suggests that syntactic structure is not a crucial factor for the licensing of a distributive reading. This property is illustrated by the following English examples (*K* = Key; *S* = Share):

- (3) a. *Every candidate* spoke to *a journalist*.
 K S
 b. *A journalist* spoke to *every candidate*.
 S K
 c. Our newspaper sent *a journalist* to *every candidate*.
 S K
 d. Mary spoke to *a journalist* *every day*.
 S K

The Share constituent must however, regardless of its surface syntactic position, be construed semantically under the scope of the Key phrase. We shall show below (section 2.3) that this assumption is empirically supported in KA.

Choe proposes to assume that the Key and Share must be *co-arguments*, with *arguments* understood as including an Event argument *à la* Davidson (1980): this analysis suffices to account for the distinction between 'distributivity over participants' and 'distributivity over events': in (4a) the Key is the (plural) subject argument; in (4b,c) (and (3d)) it is the (plural) event argument, which is not represented in the syntax but made visible in the interpretation by the pluractional adverbial *at a time*:

- (4) a. The girls carried three suitcases each.
 b. The girls carried three suitcases at a time.
 c. Mary carried three suitcases at a time.

Empirical studies on distributivity focus on Share distributivity markers, viz. those occurring on the Share constituent. Choe (1987, 1991) calls these markers *anti-quantifiers*, on account of their strict narrow scope reading (or scopelessness), which makes their behaviour the opposite of that of quantifiers. A typology of Share distributive markers is presented by Gil (2005), who shows that they are quite well represented across the world's languages. For speakers of such languages as English or other Western-European languages, however, Share distributive markers look exotic since they have no counterparts in the grammars of their own languages. Under Gil's (2005) typology, Share distributive markers may surface as cardinal reduplication, prefixes, suffixes, or independent words linearly preceding or following the head noun within the Share DP. Case studies bearing on Share distributive markers include in particular Gil (1988) on cardinal reduplication in Georgian, and Farkas (1997) on cardinal reduplication in Hungarian, Farkas (2000) on the morpheme *cîte* in Romanian, on the distributive markers *kakoy-nibud'* and *<po +instrumental plural>* in Russian. The present study, which bears on the Albanian morpheme *nga*, is but a further empirical contribution to our general information about Share distributive markers.

We now present a description of the Share distributive marker *nga* in KA, devoting Section 2 to the external properties of distributive indefinites, and Section 3 to their internal make-up.

2. *Nga*-indefinites within their sentence

2.1. *Nga* as a Share distributive marker

The pair of examples in (5) shows that the occurrence of *nga* on the left of the cardinalised object *dy zyre* 'two offices' forces its distributive interpretation, as characterised in Section 1, which our English translation suggests (rather than captures)² by means of the floating quantifier *each*:

- (5) a. Në këtë universitet, profesorët
 in DM.MSG.ACC university.MSG.ACC teacher.DF.MPL.NOM³
 i kanë dy zyre.⁴
 3PL.ACC have.PRS.3PL two office.FPL.ACC
 Lit. 'In this university, the teachers have two offices.'
 [preferred reading: same pair of offices for all teachers]

² Since *nga*-distributive marking has no counterpart in English, our English translations of KA *nga*-indefinites (often by floating *each* or by the adjective *different*) are doomed to be approximations.

³ Abbreviations used in the glosses of our KA examples: ACC = accusative case; DF = definite; DISTR = distributivity marker (*nga*); DM = demonstrative; F = feminine gender; FUT = future (tense); IMP = imperfect (tense); ITJ = interjection; M = masculine gender; NOM = nominative case; OBL = oblique case; PL = plural; PRS = present tense; PST = past tense; PTC = particle; PTP = participle; REF = reflexive; SG = singular; 1, 2, 3 = first, second, third person. KA distinguishes morphologically a simple past (glossed as PST) from an auxiliated form similar to the French *Passé Composé* in that although its auxiliary is specified for the Present Tense, it may be anchored either to Speech Time, or to a past Reference Time. Both the simple past and the auxiliated past are found in our KA examples.

⁴ In KA, most nonprepositional internal arguments, both definite and indefinite, must be anticipated by a weak proclitic pronoun which agrees with the anticipated DP in person, number and Case. In this example, the 3rd-person accusative clitic *i* anticipates the accusative indefinite object, regardless of distributive marking.

- b. Në këtë universitet, profesorët
 in DM.MSG.ACC university.MSG.ACC teacher.DF.MPL.NOM
 i kanë nga dy zyre.
 3PL.ACC have.PRS.3PL DISTR two office.FPL.ACC

Lit. 'In this university, the teachers have two offices each.'

Nga in (5b) may thus be identified as a distributivity marker— a *Share* distributive marker, since it signals the indefinite DP as dependent on a quantified co-argument. We argue below in section 3 that distributive *nga* is indeed a syntactic constituent of the indefinite DP. *Nga*-less indefinite DPs must on the other hand be described as *a priori* ambiguous between a nondistributive and a distributive reading, for although they often contextually select a nondistributive interpretation (cf. (5a)).

As witnessed by the examples in (6) below, the *Share* distributivity marker *nga* is overtly distinct from universal quantifiers such as *secili* 'every(one), each(one)' or *çdo* 'every, each', since these may— optionally, but naturally — co-occur with *nga*-marking within a sentence:

- (6) a. {**Secili/çdo**} tren i ka (nga) dy shoferë.
 each.MSG.NOM train 3PL.ACC have.PRS.3SG DISTR two driver.MPL.ACC

Lit. '{Each/every} train has two drivers (a piece).'

- b. **Secili** i ka (nga) dy shoferë.
 each.MSG.NOM 3PL.ACC have.PRS.3SG DISTR two driver.MPL.ACC

Lit. 'Each one has two drivers (a piece).'

Nga distributive marking abides by a locality constraint which is consistent with Choe's assumption that the distributive dependency involves two *co-arguments*:

- (7) a. **Të gjithë studentët** i kanë
 PL all student.DF.MPL.NOM 3PL.ACC have.PRS.3PL
 lexuar nga dy libra.
 read.PTP DISTR two book.FPL.ACC

Lit. 'All the students (have) read two books each.'

- b. * **Të gjithë studentët** mendojnë
 PL all student.DF.MSPL.NOM believe.3PL
 [që i kam lexuar nga dy libra].
 that 3PL.ACC have.PRS.1SG read.PTP DISTR two book.FPL.ACC

Lit. 'All the students think that I (have) read two books each.'

2.2. *Nga*-indefinites vs. bare arguments

As already mentioned above and further emphasised below in section 3, the distributive marker *nga* always linearly precedes a cardinalised DP, and hence cannot be followed by a bare nominal. Bare nominals in Albanian are productively licensed in V- (8a) or P-governed (8b) positions, where they undergo semantic incorporation into the predicate, construed as property or activity-denoting:

- (8) a. Beni ka shtëpi / libra.
 Ben.DF.MSG.NOM have.PRS.3SG house.FSG.ACC / book.FPL.ACC
 Lit. 'Ben has house (= a house)/books.'
- b. Beni banon në hotel.
 Ben.DF.MSG.NOM live.PRS.3SG in hotel.MSG.ACC
 Lit. 'Ben lives in hotel (= in a hotel).'

As an effect of semantic incorporation, bare nominals exhibit strict narrow-scope effects and allow distributive interpretations in the presence of a quantified co-argument. *Nga*-marking, however, is strictly disallowed for bare nominals, as witnessed by (9) where the object's semantic incorporation within the predicate is revealed by the number dependency linking the object to the quantified subject:

- (9) a. {Secili/çdo} tren ka (*nga) shofer.
 each.MSG.NOM train have.PRS.3SG DISTR driver.MSG.ACC
 Lit. '{Each/every} train has driver.'
- b. Të gjithë studentët kanë lexuar (*nga) libra.
 PL all student.DF.MPL.NOM have.PRS.3PL read.PTP DISTR book.FPL.ACC
 Lit. 'All the students (have) read books.'

Although a distributive interpretation is intuitively available with *nga*-marked objects, as in (6a), as well as with bare objects, as in (9), this interpretation does not arise for the same reason in both cases: *nga*-marked nominals are indefinite DPs overtly signaled as distributive by the *nga* marker, while distributivity with bare nominals is but a consequence of their scopelessness.

2.3. The respective positions of Key and Share

As predicted by Choe's theory, distributive marking is to a large extent insensitive to the respective linear positions of Key and Share. They must however stand as co-arguments within a clausal domain, with *arguments* including an *event argument*. In the examples in (10) through (11) below, which confirm these generalisations, we contrast — whenever possible — *nga*-less and *nga*-marked indefinites with bare nominals. The semantic contrast between the two or three competing options available in each paradigm appears as regular: V-governed bare nominals are semantically incorporated into the predicate, *nga*-indefinites are obligatorily construed as distributive, and *nga*-less indefinites, when they compete with both bare and *nga*-marked forms, are preferably construed

as *nondistributive* — in other words assigned wide scope with respect to the quantified co-argument.

Key = nominative subject; Share = accusative object:

(10) a. Dy huluntues kanë propozuar teorema.
two scientist.MPL.NOM have.PRS.3PL propose.PTP theorem.FPL.ACCLit.

Lit. 'Two scientists (have) proposed theorems (to solve this problem).'

b. Dy huluntues e kanë propozuar një teoremë
two scientist.MPL.NOM 3SG.ACC have.PRS.3PL propose.PTP one theorem.FSG.ACC

Lit. 'Two scientists (have) proposed one/a theorem (to solve this problem).'

[preferred reading: same theorem for both scientists]

c. Dy huluntues e kanë propozuar nga një teoremë
two scientist.MPL.NOM 3SG.ACC have.PRS.3PL propose PTP DISTR one theorem.FSG.ACC

Lit. 'Two scientists (have) proposed one/a theorem each (to solve this problem).'

Choe's theory predicts that a quantified phrase occurring as a *non*-argument (e.g. as a dislocated topic) should fail to provide a Key for *nga*-distributive marking: this prediction seems borne out, as witnessed by the contrast between (11a) and (11b):

(11) a. Secili person e ka (?nga) një vend
every person.MSG.NOM 3SG.ACC have.PRS.3SG DISTR one place.MSG.ACC
që ai e preferon.
that 3MSG.NOM 3SG.ACC prefer.PRS.3SG

Lit. 'Every person has a (different) place that he prefers.'

b. Për secilin person, ekziston (*nga) një vend
for every.MSG.ACC person exist.PRS.3SG DISTR one place.MSG.NOM
që ai e preferon.
That 3MSG.NOM 3SG.ACC prefer.PRS.3SG

Lit. 'For every person, there is a (*different) place that he prefers.'

In (11a) *nga*-marking is felt as acceptable though superfluous, since the *nga*-less indefinite object is construed in this context as distributive (the bare option being unavailable here, due to the restrictive relative). In (11b), on the other hand, *nga*-marking is felt as sharply unacceptable.

2.4. When *nga*-marking looks obligatory

Some indefinite DPs appear as weakly felicitous if they are not *nga*-marked as distributive. Consider the examples in (12):

- (12) a. ?Secili e ka një shtëpi.
 every.MSG.NOM 3SG.ACC have.PRS.3SG one/a house. FSG.NOM

Lit. 'Everyone has one/a house.'

- b. Secili e ka nga një shtëpi.
 every.MSG.NOM 3SG.ACC have.PRS.3SG DISTR one/a house. FSG.NOM

Lit. 'Everyone has one/a house.'

We assume that the *nga*-less indefinites in (12a) owe their weak felicitousness to a semantic conflict between the intended reading of these sentences, which can only be distributive (due to the subject *secila* 'each one'), and the fact that, as witnessed by various examples above in section 2.3, *nga*-less indefinite objects are preferably assigned wide scope when they contextually compete with bare objects. The distributive-read object may indeed alternatively surface as bare, giving rise to a semantic incorporation effect, as in (13) below (see section 2.3 above):

- (13) a. Secili ka shtëpi. [compare (12a)]
 every.MSG.NOM have.PRS.3SG house. FSG.NOM

Lit. 'Everyone has house (= a house).'

Under appropriate conditions, however, distributive marking may be licensed by a covert Key, which may however only be a quantified event, not a quantified participant. Thus, an example such as (14a) is semantically deviant at first glance since neither the sentence itself nor the absent discourse context provide a Key for distributive marking to be licensed. The same sentence becomes acceptable if the discourse context makes a quantified event argument recoverable. But if the Key is a quantified participant (rather than a quantified event), it must be overtly spelt out within the sentence for distributive marking to be licensed, as witnessed by the contrast between (14b-i) and (14b-ii): although the plural Key *na* 'us' is contextually recoverable in (14b-i), *nga*-marking on the object is rejected by all our consultants:

- (14) a. Sot, ø⁵ I ka sjellë (?nga) dy libra.
 today 3SG 3PL.ACC have.PRS.3SG bring.PTP DISTR two book.FPL.ACC

Lit. 'Today, (s)he brought (?DISTR) two books.'

- b. Sot, Beni ka ardhur për të na parë dhe
 today Ben.DF.MSG.NOM have.PRS.3SG come.PTP PTC 1.PL.ACC see and

'Today, Ben came to see us and

- (i) *ø i ka sjellë nga dy libra.
 3SG 3PL.ACC have.PRS.3SG bring.PTP DISTR two book.FPL.ACC

Intended reading: 'he brought (implicit: *us*) two books each.'

⁵ Albanian is a generalised *pro-drop* language: for clarity's sake, we transcribe null subjects as empty categories (ø).

- (ii) ø na I ka sjellë nga dy libra.
 3SG 1PL.OBL 3PL.ACC have.PRS.3SG bring.PTP DISTR two book.FPL.ACC
 Lit. 'he brought us two books each.'

2.5. Pluractionality vs. Distributivity

Two important previous case studies on Share distributive markers — Gil (1988) on Georgian and Farkas (1997) on Hungarian — bear on cardinal reduplication. In KA, distributivity is marked by an independent functional word, *nga*, which — like Romanian *cîte*, cf. fn.11) — linearly precedes the cardinality marker (see below section 3). Although some important properties seem shared by *nga*-distributive marking and cardinal reduplication as described by Gil and Farkas, we find at least two discrepancies between the reported Georgian and Hungarian data, and the KA data.

2.5.1. Singular and plural indefinites

Farkas (1997) points out that in Hungarian the morpheme *egy* ('one', 'a(n)') contrasts with other cardinals in that it may be reduplicated in contexts where other cardinals may not: according to Farkas, *egy* may reduplicate regardless of the individual or situational nature of the Key variable, whereas other reduplicated cardinals are only licensed when the Key variable is of the individual type. Farkas further illustrates this contrast with the following minimal pair, where the Key variable is situational:

- (15) a. Ahányszor **egy-egy** híres személy meglátogatta a várost,
 whenever a-a famous person visited the town
 elvitték a kastélyba.
 they-took-him the castle-to
 'Whenever a famous person visited the town, they took him
 to the castle.'
- b. *Ahányszor **két-két** híres személy meglátogatta a várost,
 whenever two-two famous person visited the town
 elvitték a kastélyba.
 they-took-them the castle-to
 Lit. 'Whenever two-two famous people visited the town, they took them
 to the castle.'

(Hungarian examples adapted from Farkas 1997, ex. (47) and (50))

In KA, we do not find any similar contrasts between the singular and plural cardinals with respect to *nga*-marking. All cardinals may be *nga*-marked as dependent on either an individual variable (a participant argument) or a situational variable (an event argument). We propose to analyse this contrast between Hungarian and KA along the following lines. Albanian *nga* is a

distributivity marker which must occur in an indefinite DP identifying the Share in the distributive relation. *Nga* is thus excluded from such examples, for it would be occurring within the Key constituent.

2.5.2 Sorting out 'distributive' readings

Gil (1988) describes reduplicated cardinals in Georgian as triggering three different distributive readings, whose proposed glosses are reproduced in (16) below:

- (16) a. Orma k'acma **sami** čanta c'aiyo
 two.ERG man.ERG three.ABS suitcase.ABS carried.3SG
 'Two men carried three suitcases.'
- b. Orma k'acma **sam-sami** čanta c'aiyo
 two.ERG man.ERG three-DIST.ABS suitcase.ABS carried.3SG
 (i) 'Two men carried three suitcases each.'
 (ii) 'Two men carried suitcases three at a time.'
 (iii) 'Two men carried sets of three suitcases.'

(Georgian examples and glosses from Gil 1988: 1044)

Gil argues that reduplication in Georgian regularly triggers a distributive effect whose properties he proposes to capture under the following generalisation:

- (17) Reduplication of an expression A forces an expression B containing A to distribute over a constituent C disjoint from B.

Thus, under the reading glossed in (16b-i), the reduplicated cardinal (A) forces the object noun phrase (B) to distribute over the subject (C); under the reading glossed in (16b-ii), it forces the object (B) to distribute over a set of events (C) (the quantified event argument, under Choe's phrasing); and under the reading glossed in (16b-iii), it forces the cardinal (B) (containing itself: A) to distribute over the noun (C), creating 'three-unit' sets of suitcases in the interpretation.

In the KA counterpart of (16b), with *nga*-marking on the indefinite object, we find that the interpretation numbered (i) is the first one to arise out of context (19a); that the interpretation numbered (ii) may be licensed by some overt or implicit expression signaling pluractionality (18b); and that the interpretation numbered (iii) in (16b) cannot be separated from those numbered (i) and (ii): the collective vs. individual construal of the indefinite object is but an optional feature of the distributive readings:

- (18) a. Dy burra i mbanin **tri valigje.**
 two man.MPL.NOM 3PL.ACC carry.IMP.3PL three suitcase.FPL.ACC
 Lit. 'Two men carried three suitcases.'
- b. Dy burra i mbanin **nga tri valigje.**

two man.MPL.NOM 3PL.ACC carry.IMP.3PL DISTR three suitcase.FPL.ACC

Lit. 'Two men carried three suitcases each.'

[for each man: 3 separate suitcases, or one set of 3 suitcases]

c. {Shpeshë/regullisht/ për çdo javë},

often / regularly / every week

dy burra i mbanin nga tri valigje.

two man.MPL.NOM 3PL.ACC carry.IMP.3PL DISTR three suitcase.FPL.ACC

'{in context: Often/regularly/every week}...

(i) two men carried three suitcases each.'

[for each man, 3 different separate suitcases

or one different set of three suitcases]

(ii) two men carried three suitcases at a time.'

[in every carrying event, 3 different separate suitcases or

one different set of three suitcases]

In other words, the Key for the distributive dependency may be either a quantified participant, or a quantified event. In KA, *nga*-marking on the Share cannot simply signal the creation of a multiple unit or set of units, as glossed in (16b-iii). These results are expected under Farkas's and Choe's characterisation of distributivity as a semantic dependency, as well as under Choe's assumption that the Key and Share constituents must be co-arguments, with the Event standing as a type of argument. The above contrast between KA and Georgian would be consistent with the view that the distributive effect arises from two different sources in the two languages: in a cardinal-reduplication language such as Georgian, distributivity could be but a derived effect of a certain type of plurality, whereas the *nga* marker which we find in KA stands as a specialised pre-determiner signaling an indefinite phrase as semantically distributive.

2. 6. The Extensional Dependency Condition

Farkas (1997) proposes a general constraint on distributivity which she calls the Extensional Dependency Condition (hereunder: EDC). She draws this constraint from data such as those in (19) through (21), from Hungarian: in (19) and (18), cardinal reduplication — described as marking distributivity in Hungarian — is acceptable, while it goes unlicensed in (20)-(21):

(19) a. Minden gyerek olvasott **egy** könyvet.

every child read a book.ACC

'Every child read a book.'

b. Minden gyerek olvasott **egy-egy** könyvet.

every child read a-a book.ACC

'Every child read a book [distributive].'

[Hungarian examples adapted from Farkas 1997, ex. (34)]

(20) a. Idönként, **egy** diák megbukik.

occasionally a student fails

'Occasionally, a student fails.'

b. Idönként, **egy-egy** diák megbukik.

occasionally a-a student fails

'Occasionally, a student [distributive] fails.'

[Hungarian examples adapted from Farkas 1997, ex. (43)]

(21) a. Ha a tanár megbetegedne, helyettesítené **egy** szülő.

if the teacher sick.COND.3 replace.COND.3 a parent

'If the teacher were sick a parent would replace him.'

b. *Ha a tanár megbetegedne, helyettesítené **egy-egy** szülő.

if the teacher sick.COND.3 replace.COND.3 a-a parent

[Hungarian examples adapted from Farkas 1997, ex. (40)]

(22) a. Mari kell találkozjon **egy** párizsi tanárral.

Mary must meet a Parisian professor-with

'Mary must meet a professor from Paris.'

b. *Mari kell találkozjon **egy-egy** párizsi tanárral.

Mary must meet a-a Parisian professor-with

[Hungarian examples adapted from Farkas 1997, ex. (41)]

The EDC states that for distributivity marking to be licensed, the domain variable, viz. the variable provided by the Key constituent, must be *extensional*, as opposed to *intensional*, the latter understood as subsuming: modal, irrealis, generic.

The EDC seems to extend to *nga*-indefinites in KA. All the *nga*-marked sentences reviewed so far abide by the Extensionality Condition, and further supporting evidence is given below.

As is the case for cardinal reduplication in Hungarian, *nga*-marking is licensed in KA by a pluractional adverb — as correctly predicted by the EDC:

(23) a. {Shpeshë/regullisht}, **nga një** student vjen.
often/regularly DISTR a/one student.MSG.NOM come.PRS.3SG

Lit. 'Often/regularly, a student comes (a different student every time).'

b. Arta çdoherë i lexon **nga dy libra**.

Arta.DF.FSG.NOM always 3PL.ACC read.PRS.3SG DISTR two book.FPL.ACC

Lit. 'Arta always reads two books (two different books every time).'

We assume that the interpretation of such sentences must involve an implicit quantified event argument which the pluractional adverb makes recoverable. In other words, for *nga*-marking to be felicitous in (23a) and (23b), these sentences must be understood as elliptical equivalents of (24a,b) — where italics indicate ellipsis:

- (24) a. {Often/regularly}, a different student comes *every time I'm at the office*.
 b. *Whenever Arta reads*, she reads two books at a time.

Nga-marking is on the other hand clearly disallowed in such examples as (25) and (26), which are KA analogues of (19) and (20) in Hungarian:

- (25) Nëse profesori ishte sëmurë,
 if teacher.DF.MSG.NOM be.PST.3SG sick
 (*nga) një student duhej për ta zëvendësuar.
 DISTR a student.MSG.NOM be.PST.3SG PTC 3SG.ACC replace.PTP

Lit. 'If the teacher were sick, a student should replace him.'

- (26) Arta duhet
 Arta.FSG.NOM must.PRS.3SG
 ta takojë (*nga) një profesor në Paris.
 3SG.ACC meet.PRS.3SG DISTR a teacher.MSG.ACC in Paris.MSG.ACC

Lit. 'Arta must meet a teacher in Paris.'

Further independent KA evidence supporting the EDC is provided by the minimal pair in (27):

- (27) a. Çdo njeri i ka dy sy.
 Every man.MSG.NOM 3PL.ACC have.PRS.3SG two eye.MPL.ACC

Lit. 'Every man has two eyes.'

- b. Çdo njeri i ka nga dy sy.
 every man.MSG.NOM 3PL.ACC have.PRS.3SG DISTR two eye.MPL.ACC

Lit. 'Every man (in this story) has two eyes.'

The intuition here is that only the unmarked indefinite object in (27 a) allows us to construe the sentence as a generic statement about the human species. In (27 b), *nga*-marking on the object correlates with an anchoring effect leading us to understand that the statement is about a specific set of men — e.g. the characters in a story. This contrast is directly predicted by the EDC, and echoed

in English by the infelicitousness of floating *each* in the generic sentence in (28a), contrasting with (28b), construed as nongeneric:

- (28) a. Monsters (*each) have three eyes.
 b. (In this story), the monsters each have three eyes.

3. The internal syntax of *nga* DPs/ The morpheme *nga*: its nature and distribution

Nga is an uninflected morpheme in all its uses. *Gut et al.* (1999) and Agalliu et al. (2002) claim that it is, etymologically, a locative adverb indicating Source or Origin, and that it may be identified today as a preposition governing a noun phrase Case-marked as nominative and theta-marked as Source, Origin, Cause, or Vague Tense. We provide illustrative examples in (29a-e):

- (29) a. Të ikim **nga** shkolla.
 get-out.PRS.1PL school.FSG.NOM
 Lit. 'Let's get *out of* the school.'
- b. Një ofertë **nga** kjo agjensi amerikane
 an offer.FSG.NOM DM.FSG.NOM agency.FSG.NOM american.FSG
 Lit. 'Here is an offer *from/by* this American agency.'
- c. ø e kam lexuar një ese
 1SG 3SG.ACC have.PRS.1SG read.PART an essay.FSG.ACC
 të shkruar **nga** një shkrimtar i ri
 MSG.ACC write.PTP.FSG a writer.MSG.NOM MSG.NOM young
 Lit. 'I read an essay written *by* a young writer.'
- d. I sëmuri është dobësuar **nga**
 MSG.NOM patient.DF.MSG.NOM be. PRS.3SG weaken.PTP
 ethet sot.
 fever.DF.FPL.NOM today
 Lit. 'Today the patient is weakened *by* fever.'
- e. Bora e parë këtu bie
 snow.DF.FSG.NOM DF.FSG.NOM first here fall.PRS.3SG
nga fundi i vjeshtës
 end.DF.MSG.NOM DF.MSG.NOM autumn.DF.FSG.OBL
 Lit. 'The first snow falls here *by* the end of fall.'

Nga also occurs as a partitivity marker within a DP, which we may view as an extension of its Source-marking effect:

(30). a. Një **nga** mësimet e tij është ky.
 one lesson.DF.MPL.NOM MPL.NOM POSS.3MSG be.PRS.3SG DM.MSG.NOM
 Lit. 'One of his lessons is this one.'

b. Ky është një **nga** filozofët tanë.
 DM.MSG.NOM be.PRS.3SG one philosopher.DF.MPL.NOM POSS.1PL
 Lit. 'This is one of our philosophers.'

Finally, *nga* occurs with a distributive interpretive effect in VP-adjoined phrases surfacing as strings of the form [Cardinal *nga* Cardinal], e.g. *dy nga dy* 'two by two'. This construction is only licensed with precise numerals, contrasting here with imprecise low-quantity markers.

(31). a. Profesorët i kanë parë
 teacher.DF.MPL.NOM 3PL.ACC have.PRS.3PL see.PTP
 tridhjetë studentë, **dy nga dy**.
 thirty student.MPL.ACC two NGA two
 Lit. 'The teachers saw thirty students, two by two.'

b. *Profesorët i kanë pa
 teacher.DF.MPL.NOM 3PL.ACC have.PRS.3PL see.PTP
 tridhjetë studentë, **pak nga pak**.
 thirty student.MPL.ACC (a) few NGA (a) few
 Lit. 'The teachers saw thirty students, (a) few by (a) few.'

Dy nga dy-type phrases have exact counterparts in English, where the two cardinals are linked by the preposition *by* — interestingly also often an available translation for *nga* in its prepositional uses. As their English analogues, *dy nga dy*-type phrases are banned from argument positions — they only occur as VP-adjuncts — and cannot contain an overt lexical noun:

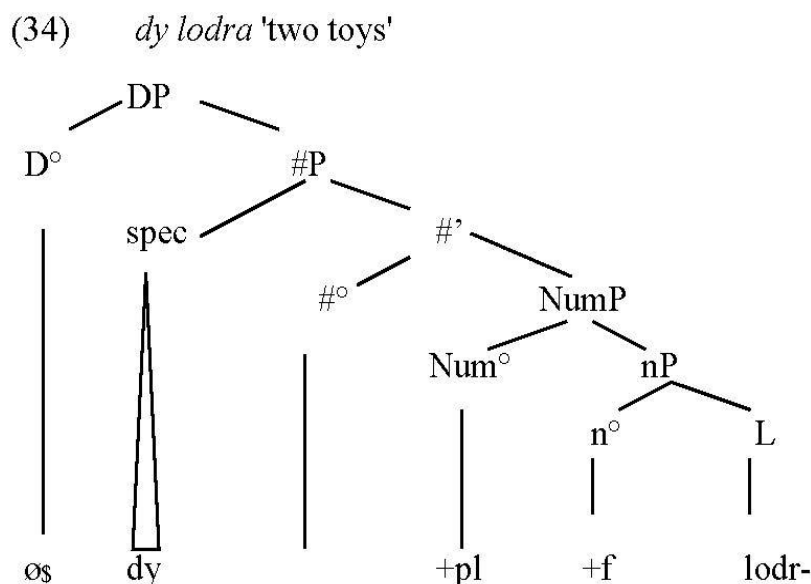
(32) *Profesorët i kanë pa
 teacher.DF.MPL.NOM 3PL.ACC have.PRS.3PL see.PTP
dy nga dy studentë.
 two DISTR two student.MPL.ACC
 Lit. 'The teachers saw two by two students.'

These data lead us to conclude that even if distributive *nga* is historically derived from a preposition, it is not, from a synchronic viewpoint, the head of a prepositional phrase; it is a functional head within the DP. Note that a similar type of situation is exemplified in French by the linguistic change leading from the Source-marking preposition *de* (cf. (33a)) to the partitive marker

de (cf. (33b)), which may be shown to fill a functional head within the DP (cf. Kupferman 2004, Zribi-Hertz 2006, Carlier 2007):

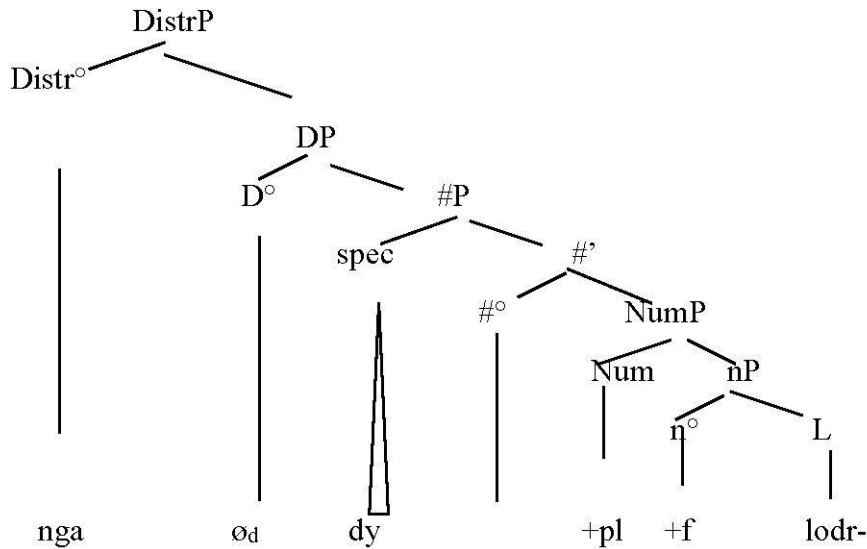
- (33). a. Il a sorti [DP leseau] [PP de l'eau].
 3MSG have.PRS.3SG draw.PART DF.MSG bucket*de* DF.SG water
 Lit. 'He drew the bucket out of the water.'
- b. Il a bu [DP de l'eau].
 3MSG have.PRS.3SG drink.PAR *de* DF.SG water
 Lit. 'He drank (some) water.'

Freely adapting Borer's (2005) assumptions regarding DP structure,⁶ we propose the schematic representation in (24) for indefinite DPs in KA:



⁶ We borrow from Borer the label # standing for Quantity, but we place cardinality expressions in the specifier of #P, rather than in its head, an assumption consistent with the fact that cardinals may be conjoined (*two or three dogs*), and that quantity expressions may have internal structure (cf. *a little, a few, a great deal of*, etc.). We use the conventional label 'NumP' for Number inflection (which Borer reidentifies as a Classifier). We borrow from Kihm (2003) the assumption that Gender is merged in the head responsible for nominality — the *n°* head. We follow Kayne (2009) in assuming that the lexical root, labeled L, is categorially unspecified. And we leave out modifier projections, which are irrelevant for the analysis of distributive *nga*.

(35) *nga dy lodra* 'NGA+two toys'



This analysis follows Borer (2005) in assuming that Quantity expressions (including cardinals) are not merged in D, but in a projection sitting below DP — the Quantity Phrase, #P — and that in indefinite quantised DPs, the D head is filled by a variable which needs to be bound by some quantifier. We likewise assume that all indefinite DPs in KA contain a variable in their D head, regardless of *nga* insertion; and we further assume that *nga* is merged in a functional head — labelled the 'Distributive' head — which optionally occurs above DP within the maximal noun phrase, selecting a quantised indefinite DP as its complement. When the Distributive projection fails to occur, the variable (\emptyset_e) in the indefinite D head calls for an existential quantifier to bind it. When *nga* is merged in the Distributive head, it turns the variable in D into a special 'distributive' variable (\emptyset_d), characterised (Choe 1987, 1991, Gil 1982a, 1982b, 1988, Farkas 1997) by its dependency upon another variable introduced in a quantified co-argument.

A legitimate question is whether *dy nga dy*-type adjuncts should be analysed as complex elliptical forms of distributive indefinite phrases, or whether they call for a distinct syntactic analysis. Although it is true that *dy nga dy*-adjuncts share with *nga*-indefinites their distributive effect on interpretation, we assume that they must be analysed as PPs, rather than as extended DPs. Evidence supporting this view is that *dy nga dy*-phrases have exact PP equivalents in languages which have no distributive pre-determiner (e.g. French, or English — and that they are — as their French or English homologues — altogether banned from argument positions. It is however possible that the availability of *nga* in *dy nga dy*-PPs should have prepared the ground for its development into a distributive pre-determiner in Kosovo Albanian: if such should have been the case, we should still need to understand why a similar development never affected such prepositions as English *by* or French *par*, although they occur in *dy nga dy*-type adjuncts with a distributive effect on interpretation.

4. Conclusions

The morphosyntactic properties of the Kosovo Albanian distributive marker *nga* lead us to analyse it as a specialised pre-determiner merged in a functional head dominating D within the maximal projection of N. As a morpheme which historically developed from a preposition into a pre-determiner, Albanian *nga* may be compared to the French partitive marker *de*, which followed a somewhat similar diachronic course — although the effect of the French pre-determiner on interpretation is partitive rather than distributive. According to German Albanologists Buchholz/Fiedler (1987: 351) distributivity in Albanian is expressed through *nga*, whose equivalent in German is the particle *je* (e.g. *je zwei Blumen*; in English: two flowers each).

We assume that distributive *nga* selects an indefinite DP as its complement and turns the content of D into a distributive variable calling for a distributive dependency — as analysed by Choe (1987, 1991), Farkas (1997) and Gil (2005) — to obtain. The distributional properties of *nga*-distributive marking in KA provide fresh evidence in support of Choe's theory of distributive marking, which claims that the Key and Share constituents involved in the distributive interpretation are unrestricted as to their surface syntactic positions but must crucially stand as co-arguments — with arguments subsuming a Davidsonian 'event' argument. Our results further support Farkas's Extensional Dependency Condition, while also revealing that so-called 'distributivity markers' actually vary as to their interpretive effects: in particular, cardinal reduplication, as instantiated in Hungarian and Georgian, and Share marking, as instantiated by distributive *nga* in Albanian, do not trigger exactly the same ranges of interpretations. We propose to derive this contrast from the assumption (borrowed from Farkas) that cardinal reduplication primarily signals pluractionality (with distributivity only a derived effect), while under our own complementary assumption, Share-marking, as instantiated by Albanian *nga*, straightforwardly signals an indefinite DP as distributive.

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