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Nouns & co. Converging evidence in the analysis of associative plurals

Abstract: A morphosyntactic peculiarity that separates proper names from (most) other noun types is their ability to occur in a special type of plural, called associative plural, whose meaning is X and X's associated person(s). In this paper, we apply a 'converging evidence' methodology to the analysis of associative plurals, by providing a diachronic typology of these plurals through the identification of the more frequent sources of associative plural markers that are attested in a sample of 80 languages, and by looking for emerging constructions for the expression of associative plurality in two corpora of English and Italian, two languages that do not have a grammaticalized way to encode this type of plurality. The analysis will show that associative plurals are likely to grammaticalize from a restricted pool of synchronic sources, and that these sources are mostly indexical sources and sources denoting the plural set, in accordance with the special semantics and referential properties of proper names.

1 Introduction: aims, methodology, and object of analysis

1.1 Overview

A morphosyntactic peculiarity that separates proper names from (most) other noun types is their ability to occur in a special type of plural, called "associative plural" (Corbett 2000: 101–111; Moravcsik 2003, among others). The meaning of this special type of plural is *X and X's associated person(s)*. The associative plural appears to be highly sensitive to the animacy and definiteness of the base noun: in some languages it is possible with proper names and definite kin terms only, while in others it can be used also with definite title nouns or with other

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definite human nouns, but, crucially, whenever a language has an associative plural, it can always be used with proper names (Moravcsik 2003: 472). This fact raises the question why this particular type of plural meaning is preferentially related with proper names or, in other words, what are the semantic characteristics of proper names that make them more likely than other noun types to function as bases for a morpheme/construction type that denotes associativity. In this paper, we aim to provide some answers to this question by applying a 'converging evidence' methodology to the analysis of associative plurals. By converging evidence we mean a methodology whereby different types of data are examined in order to answer a given research question, as will be explained in Section 1.2. Specifically, we will first provide a diachronic typology of associative plurals based on a 80-language sample, with a view to identifying the attested diachronic sources of this type of plural. We will then look for emerging constructions in discourse that match the diachronic and cross-linguistic picture by using corpus data from English and Italian. Finally, we will discuss the extent to which the diachronic sources attested for associative plurals reflect the semantic properties of proper names, and we will show that associative plural markers are the grammaticalized/constructionalized outcome of more transparent constructions used to refer to a group revolving around a more prominent human referent X (the referent of the proper name). Thus, the limitation of associative plurals to proper names (and to other highly animate and definite nouns) is just the synchronic reflex of the diachrony of this special type of plural.

After discussing how converging evidence can be used to deepen our understanding of typological patterns and providing the details of our data sample (Section 1.2), we will describe and delimit the object of our analysis, contrasting it with additive ordinary plurals (Section 1.3). In Section 2 we will discuss the diachronic patterns leading to associative plurals, while in Section 3, based on corpus data from Italian and English, we will show that the diachronic sources that are most frequently attested in our sample are also involved as building blocks of various discourse strategies used to refer to a group of referents centered around a discourse prominent human referent. Some of these discourse strategies can be considered as emergent constructions (cf. Auer and Pfänder 2011, Hopper 2011) in both Italian and English, thus corroborating the picture that emerges from our cross-linguistic analysis. In Section 4 we will summarize the observed variation, and discuss to what extent the attested sources of associative plural markers mirror the inherent referential properties of proper names. Finally, in Section 5 some conclusive remarks and prospects for future research are presented.

1.2 Methodology: converging evidence and data sample

In this study, we employ an integrated methodology, based on the assumption that converging evidence coming from different types of data is necessary to provide a comprehensive account of linguistic phenomena. This translates into the complementation of a wide-ranging typological research with a diachronic study and a corpus-based analysis based on fewer languages. In other words, the dimension of cross-linguistic variation is integrated by an in-depth exploration of diachronic and discourse variation.

In the typological literature, two main types of factors are argued to explain universal tendencies: diachronic processes (Cristofaro 2012, Bybee and Beckener 2015 among others) and patterns of use in discourse (Bybee 2008). Patterns of change are known to be very similar even in languages that are unrelated both genetically and areally (Bybee et al. 1994; Heine and Kuteva 2002; Blevins 2004), due to commonalities in the human speech apparatus, the speech situations, and the cognitive processes involved in communication. Discourse patterns, on the other hand, are said to play a role in the emergence of grammatical structures out of repeated individual usage events. Besides, when analyzing discourse data, it is often possible to observe the on-going emergence of new constructions. As pointed out by Waltereit (2012), two different perspectives can be identified in the literature on this topic.

According to Keller (1994) [1990], languages change because speakers always wish to communicate convincingly and thus have good reasons to "tweak" the conventions of language, i.e. they employ specific structures for the perceived advantages in communication that they may offer, and not for their semantic properties. Pushed by what Haspelmath (1999) calls the need for extravagance and at the same time moved by the need for effectiveness, speakers intentionally run the risk of not entirely complying with conventions of the language they are using. According to this view, innovation is deliberate, because successful communication is argued to require the occasional violation of linguistic conventions, with some of these violations eventually turning into new conventions themselves.

A slightly different view is offered by Croft (2010), according to whom grammatical change (as the emergence of grammatical structure out of language use) is drawn from the pool of intra-linguistic variation, and grammatical constraints are frozen or fixed performance preferences (cf. Hawkins 2004). Based on data from Chafe's experiment on the *Pear Story* (Chafe 1980), Croft notes that the variation in the expressions chosen by participants to verbalize the film scenes often mirror meaning changes in grammaticalization clines. Synchronic variation in discourse is thus analyzed as the result of speakers' choices in

verbalizing experience, and this variation mirrors diachronic change. According to Croft, just as phonetic change is claimed to be the outcome of uncontrollable natural variation inherent in spontaneous speech, so would morphosyntactic change be the outcome of arbitrary speakers' choices when it comes to verbalizing the same piece of experience. According to this view, deliberate innovation is rare.

In both perspectives, discourse is identified as the place where innovation takes place, thus identifying it as the dimension where we can observe both language change and cross-linguistic variation *in vitro*. As a consequence, in order to provide a comprehensive picture of a given linguistic phenomenon, it is necessary to jointly address how it is coded across languages, what are the diachronic patterns that lead to its development, and what are its patterns of use in discourse. In the following claim by Bybee and Beckener (2015: 197), we can read the leading idea underlying the converging evidence approach:

> ... we look for "universals" not by proposing strict definitions and properties all languages are expected to have, but instead by studying dynamic aspects of language **at the level of use, at the level of language-specific structures, and at the cross-linguistic level** (Croft 2001; Bybee 2010). Both similarities and differences will be instructive and help us to understand the on-line processes that create language structure as well as the biological, cognitive, and social factors that determine the outcome of change.

A converging evidence approach takes into account three types of linguistic variation, namely cross-linguistic, discourse and diachronic variation. These three types of variation are examined with the following questions in mind: What are the attested patterns of variation along the three dimensions? Is there a correspondence between the patterns of variation attested across languages and those attested in discourse? Is there a correspondence between discourse variation and the diachronic paths attested across languages? The use of a combined methodology to analyze linguistic variation aims to maximize the interaction and integration among typological, diachronic and corpus-based research, by setting a strict agenda in which a given phenomenon is systematically analyzed in the light of three different types of evidence.[1]

In this paper, we aim to analyze associative plurals in the light of a converging evidence approach, starting from a diachronic typological survey based on 80 languages in which an associative plural construction is attested[2]

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1 Examples of a converging evidence approach are not rare in the literature, although they do not explicitly make use of this term. Among others, we may here recall Hawkins (2004), Mauri (2017), Ariel and Mauri (2018).

2 Our sources for the identification of relevant languages are the two typological databases of WALS online (Dryer and Haspelmath 2013) and APiCS (Michaelis et al. 2013). We have limited

and diachronic information is explicitly available or reconstructable (see Mauri and Sansò 2011 and Sansò 2017 for a discussion on the process of language-sample construction in diachronic typology). The results of this cross-linguistic survey are then complemented by a qualitative corpus-based study of Italian and English, two languages in which no associative plural has been recognized in the literature. In this way, we aim at finding possible correspondences with the attested cross-linguistic patterns in discourse variation, uncovering emergent constructions that may fit in the typology previously identified. To this purpose, we discuss data extracted from the two comparable SketchEngine corpora of EnTenTen15 and ItTenTen16,[3] within which we looked for discourse strategies functionally equivalent to associative plurals. As will be discussed in Section 3, these strategies turn out to involve the same sources that were most frequently attested in our typological sample.

1.3 Associative plurals and nouns: delimiting the object of analysis

Associative plural constructions have been defined by Daniel and Moravcsik (2013) as constructions consisting of a noun X plus some other linguistic material (be it an affix or an independent word), whose meaning is "X & co./X and other people associated to X". Associative plurals are generally limited to nouns

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ourselves to those languages that are classified by Daniel and Moravcsik (2013) as having a "special bound/non-bound associative plural marker". There are 95 such languages in Daniel and Moravcsik's sample. We have selected a subset of 47 of these languages for which there was enough diachronic evidence as to the possible source of the associative plural marker and we have complemented this subset with a further set of 33 languages not included in Daniel and Moravcsik's (2013) sample but having the same characteristics, i.e. a special associative plural marker different from the ordinary plural and a reliable grammatical description allowing us to single out the source of the associative plural marker in an uncontroversial way. The languages included in our sample are the following: Abkhaz, Abui, Alamblak, Amharic, Asmat, Bargam, Batad Ifugao, Belep, Bengali, Bilinarra, Buriat, Buwal, Central Alaskan Yup'ik, Central Pomo, Desano, Dupaningan Agta, Dyirbal, Eastern Kayah Li, Goemai, Gude, Hausa, Hawaiian, Hawai'i Creole, Hdi, Hup, Iatmul, Icelandic, Ik, Ingush, Inuktitut, Japanese, Kabardian, Kambaata, Kannada, Kayardild, Kharia, Kiribati, Kolyma Yukaghir, Kotoko, Kriol, Kuuk Thaayorre, Lezgian, Ma Manda, Maltese, Manadonese, Manambu, Mandarin, Mangarrayi, Maori, Mauwake, Mehweb Dargwa, Meithei, Mian, Mountain Arapesh, Muna, Mwotlap, Nakanai, Nelemwa, Nunggubuyu, Nungon, Paumarí, Persian, Rapanui, Sandawe, Sawila, Sheko, Tariana, Telefol, Tobelo, Toqabaqita, Tswana, Tukang Besi, Tuvaluan, Uduk, Wardaman, West Greenlandic, Yagua, Yaqui, Yidiny, Zaar.

3 The two corpora are accessible at https://www.sketchengine.eu/.

with human reference, usually proper names or kin terms (see (1)–(2)). The referent of the noun X is called "focal referent", following Moravcsik (2003: 471):

(1)   Brahui (Northern Dravidian)   [Bray 1909: 41]
       BāzKhān-āsk
       PN-ASS.PL
       'Baz Khan and his family'

(2)   Tagalog (Greater Central Philippine)   [Kolmer 1998]
       masasaya   nasina-Maria
       happy   ASS.PL-Maria
       'Maria and the others are happy now'

These constructions differ, among other things, with respect to (i) the possibility for the associative plural morpheme/construction to be used with nouns ranking lower on the animacy hierarchy (human nouns > animate nouns > inanimate nouns), and (ii) the semantic constraints on the associated group, which can be limited to people usually associated with the noun X (e.g. family, friends) or may include more occasional sets of people (X and his/her associates in a given situation) (Moravcsik 2003; Daniel and Moravcsik 2013).[4]

Associative plurals differ from ordinary plurals in three respects. Firstly, ordinary plurals (e.g. *chair – chairs*) lead to internally homogeneous sets of 2 or more elements to which X (e.g. *chair*) can be ascribed, while associative plurals lead to internally heterogeneous sets of 2 or more elements that have some relation with X, but crucially could not be considered X (e.g. *Maria and the*

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4 A similar strategy is what Daniel and Moravcsik (2013) call "similative plural", namely a construction consisting of a noun X plus some other linguistic material (be it an affix or an independent word), whose meaning is "X and similar stuff". Similative plurals are typically employed with inanimate and non-human nouns, as exemplified in (i):

(i)   Karbi (Kuki-Chin)   [Konnerth 2014: 575]
       a-dūk=pen   aját=pen
       POSS-dust=from GEN.EX=from
       'from the dust and everything'

In a few languages, the same construction can be used for the whole animacy hierarchy, including proper names and kin terms, human, non-human and inanimates, thus covering both associative and similative plural functions. Yet, this is not very common and it is far more frequent to find separate constructions. An analysis of similative plurals goes beyond the scope of this paper, and is addressed in detail in Mauri and Sansò (in preparation).

others does not include many persons called Maria, but includes persons with different names). Secondly, ordinary plurals require a cognitive operation of addition, while associative plurals require a cognitive operation of association of the relevant referents with the focal referent X: while in ordinary plurals the resulting set is independent (or less dependent) from the context, in associative plurals the resulting set crucially depends on the specific relation that X entertains with the other set members, and this relation is contextually determined (depending on context, *Maria and the others* may indicate Maria and her relatives or Maria and her friends, cf. Mauri 2017, Mauri and Sansò 2018). Thirdly, and crucially to the purposes of this paper, associative plurals are typically limited to proper names and kin terms, while additive plurals may apply to the whole animacy hierarchy.

Despite these differences, we follow Corbett (2000) and Daniel and Moravcsik (2013) in using the term 'plural' for these constructions. They indeed refer to a plurality of entities and trigger plural agreement on verbs. Moreover, as Daniel and Moravcsik's (2013) cross-linguistic survey shows, in the majority of the languages of the world associative plural marking is simply identical to additive plural marking.

In the following section we will discuss the attested cross-linguistic variation of associative plurals, identifying the most frequent diachronic sources for the attested forms.

2 A diachronic typology of associative plurals

Associative plural markers and constructions frequently show synchronic resemblances with other lexical or grammatical material that are suggestive of diachronic connections between them. The aim of this section is to discuss the most robustly attested diachronic connections identified in our cross-linguistic sample.

2.1 Associative plurals from 3rd person plural pronouns and demonstratives

In various languages of the sample, associative plural markers can be traced back to 3rd person plural pronouns. Hausa is a case in point. In this language, the associative plural construction consists in the clitic *su* (identical with the third person plural pronoun) + the proper name:

(3)   Hausa (West Chadic)   [Newman 2000: 460]
       su   Mūsā sun   dāwō   dà   sāfe
       ASS.PL PN   3PL.PFV come.back with morning
       'Musa and the others returned in the morning'

In Hawai'i Creole, *dɛm*, the third person plural (subject and object) pronoun, is used as an associative plural marker in the associative plural construction [N *dɛm*]:

(4)   Hawai'i Creole (English-based creole)   [Velupillai 2013]
       maɪ   fadɛ   dɛm   justu   go   [...] sɛʔ [...] tə·donɛʔ
       1SG.POSS father ASS.PL PST.HAB ACT   set   turtle.net
       'My father and his friends/those associated with him used to set turtle nets'

The two cases in (3) and (4) possibly exemplify two different grammaticalization paths leading from a third person plural pronoun to an associative plural marker. In particular, the Hausa case in (3) might represent a case of grammaticalization of an "inclusory construction" (Lichtenberk 2000: 2), which consists in adjoining the 3rd person plural pronoun with the name of a person included in the set of people denoted by the pronoun.[5] The case in (4), on the other hand, seems to imply a coordinated noun phrase as a possible source, in which the two coordinands (the noun and the pronoun) may be joined asyndetically (as in (4)), or by means of an overt conjunction: *X [and] them*.[6] The two paths in (5) represent these two different grammaticalization processes:

(5)   a. They PN/PN They (inclusory construction) > ASS.PL PN/PN ASS.PL (asso-
          ciative plural construction)
       b. PN [and] them > PN ASS.PL

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5 Inclusory constructions differ from associative plural constructions in various respects. The main difference lies in the different relative salience of the noun and the pronoun: while in inclusory constructions both the noun and the pronoun may be communicatively salient, in associative plural constructions the salient element is always the noun (Lichtenberk 2000: 28–30). Nonetheless, there are diachronic connections between the two types of constructions whereby inclusory constructions may become conventionalized as associative plural constructions. The reader is referred to Mauri and Sansò (in preparation) for a discussion of these connections.
6 A language in which the associative plural marker derives from a conjunction plus a 3rd person plural pronoun is Nakanai, where the associative plural marker *mite* can be traced back to the conjunction *me* + the 3rd person plural pronoun *gite* (Johnston 1980: 186).

In other languages, associative plural markers are homophonous with plural demonstratives. In Kolyma Yukaghir, for instance, the demonstrative *taN* has a specific post-nominal use with the meaning 'X and those associated with X', as in (6):

(6) Kolyma Yukaghir (Yukaghir)   [Maslova 1999: 309]
     *emej+**taN**-pe   eju:ke   l'e-Ni*
     mother-that-PL   not:far   be-3PL:INTR
     'The mother and the others were not far away'

Demonstratives are also a common source of 3rd person plural pronouns (Heine and Kuteva 2002: 112–113). Therefore, we cannot rule out the possibility that the connection between demonstratives and associative plural markers is only indirect: in other words, either an intermediate stage in which the demonstrative has been reinterpreted as a 3rd person plural pronoun is to be postulated or the plural demonstrative represents an alternative way of referring to a third person plural referent, less grammaticalized than a 3rd person plural pronoun. While in Kolyma Yukaghir the 3rd person plural pronoun is *tittE*, in Gude (cf. (7)) the associative plural construction consists in the associative plural marker *i* followed by the proper name. This *i* appears to function as both a plural demonstrative and a 3rd person plural pronoun. Thus, in cases like this it is uncertain whether the associative plural marker derives directly from the plural demonstrative or from the 3rd person plural pronoun:

(7) Gude (Biu-Mandara)   [Frajzyngier 1997: 205]
     i   Musa
     ASS.PL PN
     'Musa and others'

2.2 Associative plurals from 3rd person possessives

There are some languages in the sample in which the associative plural can be traced back to a 3rd person possessive. In Lezgian (Lezgic), the associative plural marker is *-d-bur*, a bimorphemic marker comprising the reduced genitive form *-d* and the plural substantivizer *-bur*, thus corresponding to 'those [substantivized plural] of [genitive] X' (Haspelmath 1993: 79). In Nungon (Finisterre-Huon), on the other hand, the APL marker *-nit* allegedly derives from the contraction of the 3rd plural possessive *-ni* with the comitative marker *-ot* (Sarvasy 2014: 199–200). Other suchlike cases are discussed by Daniel (2004).

These data suggest the existence of at least two different diachronic scenarios in which possessive constructions are reinterpreted as associative plural markers. The abstract scenario in (8a), in particular, represents the development of the Lezgian associative plural marker, whereas the path in (8b) appears to be at play in the emergence of the Nungon construction.

(8)　　a. PN-GEN (substantivizer/definite marker) > PN-ASS.PL
　　　　b. PN (with/and) his/her (fellows, relatives, etc.) > PN ASS.PL

2.3 Associative plurals from nouns meaning 'group'/'family' or from universal quantifiers

In some languages in the sample, associative plurals can be ultimately traced back to nouns meaning 'group'/'family'/'house' or to universal quantifiers such as 'every' or 'all'. In Tuvaluan, for instance, the associative plural marker *saa*, preposed to proper names with the meaning of "group of people whose representative member is X" (Besnier 2000: 364), can be traced back to the reconstructed Proto-Polynesian form *SAQA.2, whose reflexes in many daughter languages (including Tuvaluan) mean 'group' or 'family' (Greenhill and Clark 2010, *sub vocem*). A noun meaning 'group' has been reconstructed as the source of the Mandarin associative plural marker *men* by Iljic (2001: 94–95). In various creole languages, moreover, there are APL morphemes deriving from such nouns (a case in point is the Kriol APL marker *mob*, cf. Schultze-Berndt and Angelo 2013).

In other languages of the sample, the APL marker derives from universal quantifiers meaning 'all, every'. This is the case of Sawila, in which the associative plural marker *nanna/nang* in one of its realizations is homophonous with the universal quantifier *nanna* 'all', as exemplified in (9a–b):

(9)　　　Sawila (Kolana-Tanglapui)　　　　　[Kratochvíl 2014: 138–139, 134]
　　　a. *ni-ya*　　　　***nanna***
　　　　　1SG-mother　ASS.PL
　　　　　'my mother and her sisters'
　　　b. *ga-maddu　nanna*
　　　　　3-child　　　all
　　　　　'all his children'

The hypothetical grammaticalization paths behind the examples presented in this section have the structures in (10a)–(10b):

(10) a. PN (and) group/family/house > PN ASS.PL

 b. PN (and) all > PN ASS.PL

2.4 Associative plurals from 'and/with'

In various languages in the sample, the associative plural morpheme is homophonous with an item whose primary function is noun phrase conjunction. This item may represent both an 'AND' or a 'WITH', depending on whether the language adopts a coordinate or a comitative strategy for noun phrase conjunction (cf. Stassen 2000).

 The associative plural morpheme of various Oceanic languages in the sample can be traced back to the Proto-Oceanic form *MA.4, whose reconstructed meaning is that of a noun phrase conjunction ('and/with') (Greenhill and Clark 2010, *sub vocem*). An example from Belep is provided below:

(11) Belep (Oceanic)   [McCracken 2012: 248]
 ya-midu=la   *pwemwa Teâ Polo-ma*
 DEM.LOC-DET.D.DH=LOC village   Teâ Polo-ASS.PL
 'down there in the home of Teâ Polo [and his people]'

The diachronic scenario behind such cases exploits the possibility of coordinators to be used as open conjunctions when used in lists, as represented in (12):

(12) PN and/with X > PN and/with (open conjunction) > PN ASS.PL

2.5 Associative plurals from spatial adverbials (*close by, along*)

There are languages in which the possible source of the associative plural marker is a spatial expression. The associative plural morpheme *mangka* in Kuuk Thaayorre, for instance, is glossed 'low down by' by Gaby (2006: 605). A possible explanation is that the focal referent of the construction, i.e. the proper name, is conceptualized as the upper point with respect to which his/her associates are in a lower position.[7] In Asmat (Madang; Voorhoeve 1965: 335, 63), on the other hand,

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7 Gaby (2006: 605) explains the rationale connecting the source spatial meaning with the target meaning as follows: "it could be that the physical postures of being seated or supine are generally adopted only around friends and family. Strangers are more likely to encounter one

the associative plural morpheme is -*mes* (*Sumuj-**mes***, 'Sumui and his family'), which is also a formative meaning 'close by'/'along'.

2.6 Associative plurals from collective markers

In a few cases in our sample, the associative plural markers are homophonous with collective markers, i.e. markers that are used to form nouns designating a collectivity or a group. In Abkhaz (North-west Caucasian), the APL marker -*raa* is partially homophonous with a suffix -*ra* that combines with plant names to yield nouns of plantations (Hewitt 1979: 152), while in Buriat (Mongolic) the APL suffix -*tan* is the same suffix that is used to form collective nouns from other nouns or adjectives (e.g. *sasuu-tan* 'people of the same age' < *sasuu* 'equal'; cf. Poppe 1960: 88).

3 A glance at discourse variation: associative plural constructions in Italian and English

Now that we have explored the attested cross-linguistic variation and the most recurrent diachronic sources for associative plurals, let us turn to the corpus-based analysis of two languages, Italian and English, for which no associative plural has been recognized in the literature (cf. Daniel and Moravcsik 2013). Our survey of the ItTenTen16 and EnTenTen15 corpora led to the identification of a number of constructions that are employed in discourse to convey the meaning 'X and other people associated to X', thus challenging the possibility to draw a neat line between languages having and languages not having an associative plural.[8]

Some of the constructions identified in these two corpora have the typical properties of emergent constructions (see Auer and Pfänder 2011), but they are all characterized by a fixed structure showing some degree of non-compositionality.

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another upright". This explanation appears to be unnecessarily complicated and idiosyncratic, as it does not take into account the existence of other cases in which the spatial notion of proximity (on the vertical or the horizontal axis) is responsible for the reinterpretation of a spatial adverbial as an associative plural marker.

8 As an anonymous referee correctly points out, it may well be the case that even in the languages of the sample the associative plural construction belongs to the domains of stylistic options rather than being grammaticalized. For the sake of simplicity, however, we have considered a language as having a grammaticalized associative plural whenever the grammatical description overtly mentions such a construction.

Even more interestingly, they mirror the source constructions attested in our cross-linguistic sample, thus confirming the theoretical hypotheses underlying a converging evidence methodology (cf. Section 1.2). In what follows, we will focus on the most constructionalized discourse strategies expressing the meaning "X and X's associates", highlighting the parallels with the data discussed in Section 2.

The first source we discussed in Section 2.1 are 3rd person plural pronouns. While Italian does not show any relevant strategy employing 3rd person pronouns, in English we find the construction [X *and them*], which may be employed to convey an associative plural meaning. If we consider examples (13) and (14), we see no significant differences from examples (3)–(4): in both cases we can see a proper name followed by a 3rd person plural pronoun, the whole construction referring to a group composed by X and some further persons, to which X is associated by some context-specific relation.

(13) *Still, we have just been plugging away, and* **Max and them** *have all done really great and have worked so hard.*

(14) *First* **Alex and them** *lied to us about the guns, and now they want to pretend like what happened didn't happen.*

In Italian it is very common to employ the construction [X *e i suoi*], lit. 'X and his.PL', where the proper name is followed by the 3rd person possessive pronoun *suoi* (cf. Section 2.2). The referents of *suoi* may include any set of persons to which X is related through some context-specific relation. In (15) *suoi* refers to Jesus' apostles, while in (16) it refers to Obama's team. In English the construction is only attested with the possessive adjective followed by a noun denoting the relevant relation (e.g. *his friends, his colleagues, his family*, etc.).

(15) *Ne-ll'*   *ultima cena*   *essi sono*   *raffigurati*
      in-ART.SG.F last   supper 3PL be[AUX].3PL represent.PST.PTCP
      seduti   *attorno ad una mensa triclinare ne-l*   *momento*
      sit.PST.PTCP around   a   table   triclinar in-ART.SG.M moment
      in cui si svolge   *il*   *drammatico dialogo*   *tra*
      in REL take.place.3SG ART.SG.M dramatic   dialogue between
      Gesù e   **i**   **suoi:** *"Uno di voi*   *mi*   *tradirà".*
      Jesus and ART.PL.M his.PL one of you[PL] 1SG.OBJ betray.FUT.3SG
      'At the last supper they are pictured sitting around a triclinium in the moment when the dramatic dialogue between Jesus and his people takes place: "One of you will betray me".'

(16) **Obama e   i   suoi**, *peraltro, non sono   insensibili*
Obama and ART.PL.M his.PL moreover NEG be.3PL insensitive.PL
al-la   questione sudanese.
to-ART.SG.F question Sudanese
'Obama and his team, however, are not insensitive to the Sudanese question.'

In Section 2.5 we discussed cases of spatial adverbials developing into associative plurals. Once again, data from Italian discourse provide a similar case: the construction [X *e dintorni*], lit. [X and surroundings] is attested with its original spatial meaning, as exemplified in (17) where X is a toponym, but also with an associative function. In the latter case, it is initially found in contexts where X is inanimate, as in (18), where the proper name denotes the Italian company FIAT and the construction refers to a more general frame having to do with FIAT, including events and persons connected to FIAT. This construction has recently been extended also to animates, as in (19), where X is the name of the well-known Italian politician Berlusconi and the expression *Berlusconi e dintorni* refers to the set of persons revolving around him.

(17) *Se anche voi   avete   voglia di scrivere la   vostra*
if   even you[PL] have.2PL wish of write.INF ART.SG.F your[PL]
guida!) sentimentale (e   non soltanto di leggere   quelle de-gli
guide sentimental and NEG only   of read.INF those of-ART.PL.M
*altri   e   abitate a **Roma e   dintorni**,   ho   un*
others and live.2PL at Rome and surroundings have.1SG a
suggerimento per voi.
suggestion   for you
'If you also want to write your sentimental guide (and not just read those of others!) and live in Rome and its surroundings, I have a suggestion for you.'

(18) *Come vede   Lorenzo la   situazione italiana, tra   la*
how see.3SG PN   ART.SG.F situation Italian   between ART.SG.F
*crisi   occupazionale (**Fiat e   dintorni**),   le   mille*
crisis employment[ADJ] Fiat and surroundings ART.PL.F thousand
contraddizioni, l'   instabilità politica e   il   futuro
contradictions ART.SG.F instability political and ART.SG.M future
incerto?
uncertain
'How does Lorenzo see the Italian situation, between the employment crisis (Fiat and the like), the thousand contradictions, the political instability and the uncertain future?'

(19) *Da   quando il   fisco   indaga   su-lle*
      since when   ART.SG.M tax.authorities[SG] investigate.3SG on-ART.PL.F
      denunce   di Margherita Agnelli a proposito de-l presunto
      denunciations of PN   about-ART.SG.M alleged
      miliardo e   mezzo nascosto   in Svizzera   da-l   padre
      billion   and half   hide.PST.PTCP in Switzerland by-ART.SG.M father
      *Gianni, gli   house organ di casa **Berlusconi e***
      PN   ART.PL.M house organs of house PN   and
      ***dintorni**   hanno   scoperto   all'improvviso gli*
      surroundings   have[AUX].3PL discover.PST.PTCP suddenly   ART.PL.M
      orrori   dell'   evasione.
      horrors   of-ART.SG.F evasion
      'Since the tax authorities are investigating the denunciations of Margherita
      Agnelli about the alleged one and a half billion hidden in Switzerland by
      her father Gianni, the house organs of Berlusconi and co. suddenly dis-
      covered the horrors of tax evasion.'

Another common strategy to express associative plural in both English and
Italian is [X *e compagnia*], En. [X *and company*]. Since the term 'company' refers
to a group, we can ascribe this type of construction to the path discussed in
Section 2.3, where the associative plural marker derives from a term meaning
'group'. Example (20) from Italian and example (21) from English refer to the
entourage of two political figures, Veltroni and Obama.

(20) *Giordano lo   ha   rassicurato: ci*
      PN   3SG.OBJ have[AUX].3SG reassure.PST.PTCP about.it
      avevano   pensato,   ma poi   hanno
      have[AUX].PST.3PL   think.PST.PTCP but then have[AUX].3PL
      risposto   sì   al-la   richiesta di compiere un gesto   di
      reply.PST.PTCP   yes   to-ART.SG.F   request   of make.INF a gesture of
      *cortesia   nei confronti di **Veltroni e   compagnia**.*
      courtesy   towards   PN   and company
      'Giordano reassured him: they had thought about it, but then they
      answered yes to the request of making a gesture of courtesy towards
      Veltroni and company.'

(21) *The media is reporting that **Obama and company** will now at least parti-
      ally withdraw "vital" US government political support for Israel at the
      United Nations.*

In Italian, the expression *e compagnia* is optionally followed by an attributive form, typically *bella* 'beautiful' or *cantante* 'singing', resulting in the constructions [X *e compagnia bella*] and [X *e compagnia cantante*]. The latter probably derives from uses in which the group accompanying the focal referent behaves as performing a show around the star.

This construction is possibly the least grammaticalized construction type among those discussed in this article, since *company/compagnia* are inherently relational nouns (i.e. they imply the existence of an X whose company is being referred to) and the meaning of the construction *X and company/e compagnia* is still quite compositional. Yet, especially in the case of the two idiomatic Italian expressions *e compagnia bella* and *e compagnia cantante*, the referential properties of *compagnia* are quite vague, i.e. the expressions may be used not only to refer to the usual or institutional company of an individual, but also to a set of referents only loosely related to the focal referent. Thus, the expression *Veltroni e compagnia* may be used to refer to Veltroni's political entourage or its reference may be stretched so as to include politicians in general, given the appropriate context. This referential vagueness is what characterizes associative plural markers too (Moravcsik 2003: 472–473).

We also found strategies including the universal quantifier 'all, everything' in both languages. In English the construction [X *and all*] means X and associates, thus 'all' is not meant to refer to every possible human being (cf. (22)). Similarly, the Italian construction [X *e tutti quanti*] does not refer to any person in world, but is rather limited to the set of persons sharing with X a given context-relevant situation, namely a specific experience in (23) and friendship in (24):

(22) *I just wanted to give my props to* **Jackson and all** *– we took off early yesterday to see the final film.*

(23) *Grazie a te* **Greenman e   tutti quanti**, *ci siamo divertite e*
     thanks to you PN   and all   have.fun.3PL.F   and
     ne-llo   stesso tempo abbiamo   creato   un po' di
     in-ART.SG.M same   time have[AUX].1PL create.PST.PCTP a   bit of
     interesse nelle   faccende de-l   nostro paese.
     interest in-ART.PL.F affairs of-ART.SG.M our   country
     'Thanks to you, Greenman and co., we had fun and at the same time we have sparked some interest in the affairs of our country.'

(24) *temo   che   non   riuscirò   a   venire.*
    be.afraid.1SG COMP NEG be.able.FUT.1SG to come.INF
    Avrei   rivisto   volentieri **Lidia e**
    have[AUX].COND.1SG see.again.PST.PTCP gladly   PN   and
    tutti quanti.
    all
    'I'm afraid I will not be able to come. I would have gladly seen Lidia and co.'

Collective derivation to express associative plural (cf. Section 2.6) is attested in Italian (personal knowledge), where the collective morpheme *-ame* (found, for instance, in *legn-ame*, wood-COLL, 'wood, timber, lumber') can be occasionally suffixed to a proper name X to denote the set of persons and situations having to do with X. The Italian politician Berlusconi is once again called in question in example (25), where the word *berluscon-ame* is coined to refer to Berlusconi's entourage.

(25) *Nel   frattempo ci godiamo il   berluscon-ame che*
    in-ART.SG.M meantime   enjoy.1PL   ART.SG.M PN-COLL   REL
    ci   domina
    1PL.OBJ dominate.3SG
    'In the meantime we enjoy Berlusconi & co., who dominate us'

Magni (2018) identifies *-aglia* as a further Italian derivational strategy denoting an internally heterogeneous set, revolving around the human referent denoted by the base. This use is not completely new, as can be observed in a number of Italian surnames ending in *-aglia* and denoting a whole family. Just like *-ame*, also *-aglia* can be occasionally suffixed to proper names of celebrities or politicians, to denote the set of persons whose pivot is denoted by the proper name.

    Among the diachronic sources described in Section 2, there is only one type for which we could not find any direct correspondence in discourse data from English and Italian, namely the path deriving an associative plural from a noun phrase conjunction or comitative construction alone (Section 2.4). However, we should note that all the constructions discussed in this section (except for collective derivation) involve the use of the additive connective *and* (*e* in Italian), followed by pronouns, demonstratives, adverbs, nouns denoting 'group' and quantifiers. Therefore, the central role of connectives in the verbalization of associative plurality is fully confirmed by discourse data.

4 Regular patterns of variation: associativity and identifiability

The diachronic sources described in Section 2 and the strategies identified in Section 3 show clear correspondences. As summarized in Table 1, the attested diachronic patterns and the constructions observed in discourse can indeed be grouped into two macro-types: indexical strategies and strategies denoting the plural set. Orthogonal to these two macro-types is the dimension of additivity, which manifests itself in the generalized presence of conjunctions such as *and/also* in various diachronic sources and motivates the emergence of associative plural morphemes from conjunctions (cf. Section 2.4).[9]

Table 1: Diachronic sources and emerging constructions attested for associative plurals.

Indexical strategies			Strategies referring to the plural set		
	Diachronic sources	Emerging constructions		Diachronic sources	Emerging constructions
PERSONAL PRONOUNS	'and them'	En. *X and them*	WORD FOR 'GROUP'	'group'	En. *X and company*, It. *X e compagnia*
POSSESSIVE PRONOUNS	'and his'	It. *X e i suoi*	UNIVERSAL QUANTIFICATION	'all, everything'	En. *X and all*, It. *X e tutti quanti*
SPATIAL ADVERBS	'close by'	It. *X e dintorni*	COLLECTIVE MARKERS	collective	It. *-ame, -aglia*
		ADDITIVITY	'and, also'		

As we argued in Section 1.2, discourse is the place where innovation takes place, therefore it is by looking at discourse that we can find explanations for the emergence of language change, both within and across languages. Given the high degree of correspondence between the data gathered in our sample and the data collected through corpora, we believe that a close examination of the latter may help us to shed some light on the former.

Based on the analysis of the contexts in which associative plural constructions occur in English and Italian discourse, we indeed argue that the semantic

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9 The subdivision represented in Table 1 should be taken as a systematization over the various strategies attested to convey associative plurality. This does not imply that there is a neat separation between the two macro-types: for instance, some of the indexical strategies, e.g. personal pronouns or possessive pronouns, are inherently plural, and thus make reference to a plural set.

and morphosyntactic features of the strategies summarized in Table 1 represent specific ways of constructing the plural set, which mirror the specific properties of proper names.

While in additive plurals the nominal base denotes the type to which set members can be ascribed, in associative plurals the nominal base denotes the human referent around which a whole group is construed. Proper names, indeed, are generally (or tend to become) semantically opaque (Anderson 2007: 99–100), and have an identificatory rather than a descriptive function, i.e. they cannot be used to refer to a type. Moreover, proper names, as Anderson (2007: 160) points out, are characterized by high referentiality: they "are not merely convenient abbreviatory devices, though this is a role they play; they are the referential anchors for discourse". As a consequence, the referent of a proper name is highly identifiable and typically highly salient and accessible in the discourse context. This allows it to act as the *pivot* of the set when combined with plural morphology, i.e. to be the common denominator underlying membership to the set itself. All further elements inferable through the associative plural are indeed humans that may be part of the plural set *provided that* they entertain a specific, context-dependent relation with the pivot, e.g. they are pivot's colleagues, friends, relatives, etc. Thus, to correctly interpret an associative plural, speakers do not simply proceed by addition, but are required to follow an associative reasoning: first, they have to unambiguously identify the pivot, then they have to access the context to identify the specific relation that the other potential elements of the set entertain with the pivot (see Mauri and Sansò 2018 for a detailed discussion of this process of "set construction").

The pivotal role of the proper name and its privileged relation with the notion of associativity are hence a direct consequence of the inherent semantic properties of proper names and of their accessibility in discourse. These properties may in turn explain the typological, diachronic and discourse variation exemplified in Sections 2 and 3, and summarized in Table 1.

Indexical strategies include constructions that make use of deictic markers, such as personal and possessive pronouns, demonstratives, and relational spatial adverbs (e.g. close by). Their exploitation for the expression of associative plurality can be traced back to the high degree of identifiability and discourse accessibility of the nominal referent. The unique identity of the proper name indeed easily works as the deictic center of the construction, around which an associative reasoning can be activated. By contextual association it is then possible to identify the other members of the group, which are conceived as somehow occupying a contiguous area, due to entertaining a close relationship with the pivot.

On the other hand, strategies denoting the plural set (or its construction) include words meaning 'group', universal quantifiers indicating the exhaustification of

the set ('all, everything'), and collective morphemes. In these cases, the strategy denotes the notion of plurality itself, built around the referent of the proper name. What we observe here is direct reference to the group resulting from contextual association.

5 Conclusions

The aim of this paper was to apply a 'converging evidence' methodology to the analysis of associative plurals, that is, a construction type that applies to proper names and kin terms to denote a plurality of human referents contextually associated to the referent of the base noun.

After discussing the theoretical foundations of converging evidence and delimiting the object of analysis, we provided a diachronic typology of associative plurals, identifying the most frequent sources attested in a 80-language sample. As a second stage, we looked for constructions and emerging usage patterns for the expression of associative plurality in two large corpora of English and Italian, two languages for which no grammaticalized way to encode associative plurality has been recognized in the literature. We showed that both English and Italian display a number of strategies that are employed to convey associative plural in discourse.

The complementation of the corpus-based and cross-linguistic analysis revealed neat correspondences, which allowed us to provide an integrated account of the emergence of associative plurals across languages. We argued that associative plurals are likely to grammaticalize from a restricted pool of synchronic sources, and that these sources are mostly indexical strategies and strategies denoting the plural set. Based on a close examination of discourse data, we explained the observed patterns with reference to the special semantics of proper names, especially their referential properties and their high discourse accessibility.

The discussion in this article should have clarified that variation in the cross-linguistic encoding of a given function (the expression of a special type of plurality, limited to proper names/kin terms and centered around a focal element) is not random, thereby confirming the importance of a diachronic-typological approach to linguistic diversity, which can reduce the attested variation to a limited set of diachronic sources. Moreover, the integration of diachronic-typological data with synchronic data reflecting real language use has furthermore confirmed that synchronic variation is not random either, and that the expressive means that a speaker can resort to to encode a given function when a language does not possess a grammaticalized marker/construction to encode that function are the same that are found as sources of those markers/constructions across languages.

Abbreviations

1/2/3	1st/2nd/3rd person
ACT	active
ADJ	adjective
ART	definite article
ASS.PL	associative plural
AUX	auxiliary
COLL	collective
COMP	complementizer
COND	conditional
D	deictic
DEM	demonstrative
DET	determiner
DH	downhill
F	feminine
FUT	future
GEN.EX	general extender
HAB	habitual
INTR	intransitive
LOC	locative
M	masculine
NEG	negation
OBJ	object
PL	plural
PN	proper name
POSS	possessive
PST	past
PTCP	participle
SG	singular

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Appendix – The diachronic sources of associative plural markers/constructions in the 80 language sample

Some languages (e.g. Kayardild) appear more than once in the table because they have more than one associative plural marker/construction. The category 'other' includes a number of more sporadic diachronic sources. The reader is referred to Mauri and Sansò (in preparation) for a discussion of these sporadic sources.

Source	Languages
3rd person plural pronoun/Plural demonstrative	Alamblak, Amharic, Batad Ifugao, Bengali, Buwal, Gude, Hausa, Hawai'i Creole, Hdi, Icelandic, Ingush, Kayardild, Kolyma Yukaghir, Kotoko, Manadonese, Manambu, Mountain Arapesh, Mwotlap, Nakanai, Persian, Toqabaqita, Tukang Besi (**22 languages**)
3rd person possessive	Dupaningan Agta, Ik, Lezgian, Muna, Nungon, Yaqui (**6 languages**)
Noun meaning 'group', 'family'/Universal quantifier	Kriol, Ma Manda, Mandarin, Mehweb Dargwa, Sawila, Telefol, Tobelo, Tuvaluan (**8 languages**)
'And'/'with'	Belep, Desano, Hawaiian, Kayardild, Kiribati, Maori, Nelemwa, Sheko, Tariana, Yagua, Yidiny (**11 languages**)
Spatial adverbial/ spatial expression	Asmat, Central Alaskan Yupik, Inuktitut, Kuuk Thaayorre, West Greenlandic (**5 languages**)
Collective marker	Abkhaz, Buriat, Hup (**3 languages**)
Other/uncertain	Abui, Bargam, Bilinarra, Central Pomo, Dyirbal, Eastern Kayah Li, Goemai, Iatmul, Japanese, Kabardian, Kambaata, Kannada, Kharia, Maltese, Mangarrayi, Mauwake, Meithei, Mian, Nunggubuyu, Paumarí, Rapanui, Sandawe, Tswana, Uduk, Zaar (**25 languages**)