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From classifiers to applicatives in Mojeño Trinitario: A new source for applicative markers

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Abstract: Well attested diachronic sources for applicative markers are adpositions and verbs. Nominal sources are regarded as dubious, although nouns have been argued to have developed into applicatives in some languages (such as Murrinhpatha, in Nordlinger (this issue). In this paper, I argue for a previously unreported source for applicatives, by presenting the possible applicative function of the classifiers of Mojeño Trinitario (Arawak, Bolivia), based on a large corpus of texts collected in the field. While classifiers within verbs derive prototypical applicative constructions, they show unusual properties as applicatives, namely in their semantics. The applicative markers are selected according to the physical properties of the referent of the applied object, rather than its semantic role within the sentence. And although most of the classifiers show no similarity to free nominal lexemes in the present state of the language, the classifiers found in Mojeño Trinitario verbs are very likely derived historically from nominal incorporation, a typical path of development. Mojeño Trinitario data offer new evidence for the possibility of elements derived from nouns to be reanalyzed as morphological applicative markers.

Keywords: Diachronic syntax, applicative, noun categorization, noun classification, location, Mojeño Trinitario, Arawak

1 Introduction

Well attested diachronic sources for applicative markers are adpositions and verbs. Nominal sources are regarded as dubious (Peterson 2007), although nouns have been argued to have developed into applicatives in some languages (Murrinhpatha, in Nordlinger this issue; and Halkomelen, in Gerdtz and Hinkson 2004, *inter alia*). The position of Peterson (2007: 140–141) with regard to these cases is that they do not instantiate direct grammaticalization of a noun as an applicative marker, but that instead the grammaticalization path from noun to

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applicative always needs an intermediate stage (for example with the noun having first grammaticalized into an adposition or a directional).

In this paper, I introduce a new source for applicative markers: classifiers. The applicative function of the classifiers of Mojeño Trinitario (Arawak, Bolivia) is presented in detail, based on a corpus of 8 hours of (semi)-spontaneous texts and thousands of elicited sentences collected in the field. Mojeño Trinitario has a set of classifier suffixes that occur on nouns, numerals, adjectives, and verbs. In Mojeño Trinitario, the presence of a classifier on the verb enables the coding of an adjunct (otherwise always introduced by a preposition) as a direct object, in the absence of a dedicated applicative marker. Example (2) illustrates the use of the classifier *-e* (for liquids) as an applicative marker. The classifier, found on the verb, categorizes a peripheral participant (often a location as in (2)), and the derived verb treats this participant as a direct object. This participant would otherwise be expressed as an adjunct with a preposition as in (1). When the verbal root is intransitive, the derived verb stem is transitive in this construction (as will be argued below). Thus the sole presence of a classifier on a verb enables applicativization.

- (1) *to kwoyu ty-ow-'o te to 'une*
 ART.NH horse 3-be-ACT **PREP** ART.NH water
 'The horse is in the water.' elicited

- (2) *to kwoyu t(a)-ow-e-ko to 'une*
 ART.NH horse 3NH-be-**CLF:liquid**-ACT ART.NH water
 'The horse is in the water.' elicited

These data add new evidence for the possibility of classifiers to be reanalyzed as applicative markers. Most Mojeño Trinitario classifiers show no formal or semantic similarity to free nominal lexemes in the present state of the language, but are nevertheless very likely derived historically from nouns. The classifier suffixes found within the verbs are likely derived from nominal incorporation, a typical path of development (Mithun 1986). I propose that this language illustrates an additional grammaticalization path from nouns to applicatives, with classifiers as an intermediate stage.

This paper, by presenting in detail the applicative function of classifiers in Mojeño Trinitario, fulfills three aims. First, it expands our knowledge of the syntactic functions of nominal classification cross-linguistically. The applicative function of classifiers has never been reported in the typological literature, and is to my knowledge not attested in other Arawak languages (Aikhenvald 2016; Danielsen 2007: 211). Second, this paper also contributes to a better knowledge of applicativization. It adds a possible strategy never reported before to the

typological literature on applicativization: the use of classifiers on verbs. Importantly, the applicative markers issued from this previously unreported source show some unusual properties, especially at the semantic level. The applicative markers are selected depending on the physical properties of the referent of the applied object, rather than depending on its semantic role within the sentence. Third, this paper shows that classifiers may develop an applicative function and become applicative markers while retaining their behavior as classifiers. Also, assuming that Mojeño classifiers develop from nouns, this paper offers advances in the debate on whether applicatives can develop out of nouns, by showing one more case in which units deriving historically from nouns further develop into applicative markers. In line with Peterson (2007: 140–141), this paper proposes that an intermediate stage is always needed before nouns grammaticalize into applicatives, on the basis of the present study as well as other published case studies involving with the nominal origin of applicative markers.

Section 2 presents the Mojeño Trinitario language, its classifiers, and their function when occurring on verbs. Section 3 is devoted to the applicative function of the classifiers. Section 4 discusses the diachronic path of development from classifiers to applicative, and also goes back to the nominal origin of classifiers to address the typological debate on the possibility of a nominal origin for applicative markers.

2 The Mojeño Trinitario language and its classifiers

2.1 Mojeño Trinitario

Mojeño Trinitario (trin1274) is an Arawak language spoken in Lowland Bolivia (Gill 1957; Rose 2015a). The data on which this paper is based have been collected in the field by the author since 2005. It constitutes an unpublished database of eight hours of (semi)-spontaneous texts, 2 hours of isolated sentences elicited with stimuli, and additionally 4900 elicited sentences.¹

Preliminary information on object and adjunct encoding is important for this paper. Object noun phrases, like subject nouns phrases, are unflagged. Most transitive sentences do not display two noun phrases, but in those that do, the basic order is SVO. Subjects are indexed with prefixes on the verb, and objects with suffixes (3). First and second person objects are indexed with a suffix on

1 Some of the texts with Spanish and English translations are available at <https://www.ortolang.fr>.

the verb. In contrast, third person objects are not overtly marked but trigger semantically specific co-argument indexation of third person subject (4). The semantically specific third person subject prefixes (for non-human, human plural, masculine or feminine)² contrast with the non-specific third person subject prefix *t-*, that is found both on intransitive verbs as in (5) and on transitive verbs with a first or second person object as in (6) (Rose 2011). The selection of a third person subject prefix is therefore a marker of transitivity that does not solely depend on the number of the arguments and the person of the co-argument, but is also sensitive to various transitivity criteria, like aspect, mood, information structure, etc. (Rose 2011). For the present paper, examples have been selected where the transitivity of the verb can be inferred from the subject prefix (when third person). A *t-* prefix indicates either an intransitive verb as in (5) or a transitive verb with a first or second person object encoded with a suffix as in (6). Any other prefix for third person subject (*ma-* M♂, *ñi-* M♀, *s-* F, *na-* PL, *ta-* NH)³ indicates a transitive verb with a third person object (that is unflagged) as in (4). Mojeño Trinitario shows A-preserving lability, also called agentive ambitransitivity: the same root can be used without any formal change either intransitively with a unique S participant, or transitively with both A and P (with S being semantically equivalent to A). It is observable in the examples (3) to (6) involving the verb *piko* ‘be scared’, where A is the entity being scared, and P is the scaring entity, and also in (7) where the root *ew* ‘sow’ is used intransitively in the same clause and transitively in the second clause (see the change in 3rd person subject indexes).

- (3) *wo p-ku-piko-nu*
 NEG 2SG-IRR.NEG-be_scared-1SG
 ‘Don’t be scared by me.’ T_8_028
- (4) *ema ma-piko to paku*
 3M 3M-be_scared ART.NH dog
 ‘He is scared of the dog.’ elicited
- (5) *ma 'chane t-piko=jicha mraka*
 ART.M person 3-be_scared=INTENS strong
 ‘The man [...] got really scared.’ T_8_025-026

² For a full presentation and discussion of the pronominal paradigm, see Rose (2015b).

³ The plural, masculine (singular) and feminine (singular) categories are restricted to human referents. The distribution of the two markers for masculine depend on the gender of the speaker (Rose 2013).

- (6) *t-piko-nu*
 3-be_scared-1SG
 ‘S/he is scared by me.’ elicited
- (7) *ene t-ew-ko-m-po, na-ew-ko-po to arusu*
 and 3-sow-ACT-PL-PFV 3PL-SOW-ACT-PFV ART.NH rice
 ‘And they start to sow, they sow rice’. T_{21_038}

Obliques (adjuncts or peripheral arguments) always occur with a preposition, and are also distinguished from objects by not being indexed on the verb. There is a single simple preposition *te*,⁴ that shows multiple meanings such as “with”, “in”, “on”, “for”, “from”, etc. as in (8). There is no lability involving adjuncts, so that there can be no applicative interpretation in the absence of a dedicated applicative marker, besides the construction under scrutiny in this paper.

- (8) *t-junopo=po te to smeno*
 3-run=PFV PREP ART.NH woods
 ‘S/he ran **to/in/from** the woods.’ T_{11_018}

Mojeño Trinitario shows three dedicated applicative morphemes, *-(i)no* for benefactive (9), *-u* for goal (10), and *-i'o ~ -iyo* for a fronted participant expressing instrumental, location, cause, or manner (11). There is no interaction between the two types of applicative construction, i.e. that with a dedicated applicative marker shown in (9) to (11) and that with a classifier triggering the applicativization of the verb it occurs on, shown in (2).⁵ This paper deals only with the latter.

- (9) *n-wachri-ri-s-no su meme*
 1SG-buy-PLURACT-ACT-**APPL** ART.F 1SG.mother
 ‘I went shopping for my mother.’ elicited
- (10) *Calixta s-iso-'u-cho to 'santi to sukri-ono*
 Calixta 3F-weed-**APPL**-ACT ART.NH field ART.NH plantation-PL
 ‘Calixta weeded the field for the plantations.’ elicited

⁴ The form *te* is actually a reduced form of a prepositional root *ye'e* with a third person non-human prefix *ta-*. If the preposition introduces a first or second person, or a human third person, this is indexed as a prefix on *ye'e*, as in *p-ye'e* “with you, for you, etc.”.

⁵ My corpus shows examples of constructions with both a dedicated applicative marker (*-u* or *-i'o*) and a classifier associated with one of the noun phrases of the applied verb. The classifier then displays its regular behavior, and has no applicative function.

- (11) *pjoka kaecha n-is-iyō* *pjo n-ésane*
 DEM shovel 1SG-weed-**APPL** DEM 1SG-field
 ‘With this shovel, I weed my field.’ elicited

2.2 Mojeño Trinitario classifiers

Mojeño Trinitario has a set of 31 classifiers found in multiple environments: on nouns (12), numerals (13), adjectives (14) and in verbs (15). This wide distribution is a common characteristic of classifier systems in the Arawak family (see for example Aikhenvald 2007). Aikhenvald (2000) coined the term “multiple classifier system” for such systems.

- (12) *pjo yuk-pi* **N-CLF**
 DEM.NH fire-**CLF:fili**
 ‘a candle’ Loc_C_004
- (13) *no api-na-no 'chañ(e)-ono* **NUM-CLF**
 ART.PL two-**CLF:H** person-PL
 ‘two persons’ Path_M_011
- (14) *to chope-gie wkugi* **ADJ-CLF**
 ART.NH big-**CLF:cyl** tree
 ‘the big trunk’ T_25_070
- (15) *p-samu-e-k=yore to n-ee-sa* **V-CLF**
 2SG-feel-**CLF:liquid**-ACT=FUT ART.NH 1SG-drink-HAB.P.NZ
 ‘You are going to taste my manioc beer’ T_35_20

Most classifiers do not show any formal or semantic relationship to a noun, but there are eleven classifiers which do show a formal and semantic relationship to a noun in the synchronic state of the language. For example, one of the allomorphs of the classifier *-je ~ -ju'e* for a volume with shapeless boundaries is homophonous with the noun *-ju'e* ‘stomach’. The classifier *-pewo'u* for hand is homophonous with the noun *pewo'u* ‘span’ that is used for a measure unit based on the hand gauge. The classifier *-gi* ‘cylindrical’ can be related to the noun *-gira* ‘seed’. Only the forms that are not strictly identical to a synchronically attested noun root, either formally or semantically, are analyzed as classifiers. Otherwise, we are dealing with nominal roots used in compounds (Rose et al. Submitted discusses the distinction between classifiers and nouns).

The list of classifiers with their glosses, a suggestion of their general meaning, and of the nominal referents that they categorize in my corpus is given in the Appendix. Classifiers generally express a general property meaning, most often about shape and consistency, as shown in (16) and (17). There is a single classifier for humans *-na* (13), that is used as a default classifier on numerals in discourse (18), and is excluded from the classifier slot in the verbs. Classifiers categorize nominal referents: the same noun can be categorized differently depending on the physical properties on its referents as exemplified in (16) and (17), or depending on the speaker's perspective (further information below in Section 2.3).

- (16) a. *tére-pi* N-CLF
 belt-CLF:fili
 'belt (typically a leather one)'
- b. *tére-mo* CLF
 belt-CLF:fabric
 'woven belt'
- (17) a. *mópo-si* CLF
 bee_related-CLF:sphere⁶
 'bee'
- b. *mop-ji* CLF
 bee_related-CLF:amorph
 'beeswax'
- c. *mop-omo* CLF
 bee_related-CLF:liquid
 'honey'
- (18) *api-na* *wkugi* 'chope-gi(e)-ono NUM-CLF
 two-CLF:GEN tree big-CLF:cyl-PL ADJ-CLF
 'two big trees' C&B_F_048

Classifiers are obligatory on numerals only (except if a multiplicative or a nominal root is attached to the numeral, see Rose et al. Submitted), and on a few nominal and verbal roots. On nouns, they can have a qualifying function as in (16): the classifiers do not change the meaning of the root but qualify, like adjectives do, the noun, by specifying physical characteristics of its referent. They can also have a derivational function: they derive noun stems from other

6 Insects fall under the *-si* category in Mojeño Trinitario.

nominal roots as in (12), sometimes semantically underdetermined as in (17). On adjectives, they could be said to agree semantically with the head noun, as in (14) and (18), but they are very rarely used in that position. Their functions on verbs are discussed in the next section. Their functions in other contexts will be mentioned again in Section 4 (for more information, see Rose et al. Submitted).

2.3. The functions of classifiers on verbs

The same set of classifier suffixes is also located on verbs, but categorizing nominal referents. Mojeño Trinitario classifiers are found on both intransitive and transitive verbs. They attach directly to the right edge of the root, except when a copy within the reduplication process or a goal applicative suffix is inserted in between, as in (19).⁷ Classifiers are never obligatory on the verb (leaving aside their applicative use).

- (19) *ma-muire mu-et(u)~tutu-pi-ko* to *v-echjiriwo*
 3M-too 3M-know~RED-CLF:fili-ACT ART.NH 1PL-language
 ‘He too knows more and more of our language.’ T_20_58

When used on verbs, Mojeño Trinitario classifiers categorize a nominal referent, usually either the S of an intransitive verb (20) or the P of a transitive verb (21), as is typical for verbal classifiers (Keenan 1984; Aikhenvald 2000). But a particular property of Mojeño Trinitario classifiers is that they can also categorize an adjunct (22),⁸ most often a location (but also a source, a goal, or a reason). This is not often reported, to my knowledge, in the literature. However it is at least attested in other Arawak languages (see Michael 2008; Admiraal 2016; Brandão 2016).

Classifier on verb for S, new participant:

- (20) *t(a)-appú-'e-ko* *pjuena s-ju'e*
 3NH-swell-CLF:convex-ACT DEM 3F-stomach
 ‘Her stomach swelled.’ T_12_009

⁷ In example (19), the classifier *-pi* categorizes ‘our language’. This classifier for narrow, long, thin and flexible items, of which ‘rope’ is the prototype, can be used metaphorically for psychological and cognitive elements: speech, songs, music, feelings.

⁸ There is absolutely no reason to consider the oblique to be extraposed, given that there is no prosodic break.

Classifier on verb for O, reactivation of a given participant:

- (21) *ta-ni-k-'o* *to* *'santi*
 3NH-burn-CLF:path-ACT ART.NH field
 'It (the fire) burns the field.' T_21_032

Classifier on verb for Oblique, new participant:

- (22) *t-eja-me-re-ko* *te* *pjo* *ñi-ye'e* *estera*
 3-sit-CLF:fabric-PLURACT-ACT PREP DEM 3M-GPN mat
 'The man is sitting on his mat.' Path_S_51

In all cases, the classifiers on the verbs qualify the predicate but are not adverbial affixes disconnected from any noun phrase: they always categorize a participant of the verb frame (S, P or adjunct). At the same time, like prototypical classifiers, they are not realized in an agreement pattern (Grinevald 2000). First, classifiers are not obligatory. Second, it is rare to observe several classifiers on different targets in a sentence for the same referent. Third, different classifiers can be used with the same noun as in (23). This means that classifiers categorize referents rather than agreeing with nouns. They participate in directing the attention of the hearer towards some properties of the referent that the speaker judges important to highlight as well as in reference tracking. In discourse, different classifiers can even be used for the very same referent, either because its characteristics have changed, or because the speaker chooses to highlight one of its properties rather than the others. For example, in a conversation where the speakers were surrounded by a group of skinny dogs, the dogs are once categorized with *-mo*, referring to their skinniness, and once with *-muri*, referring to their organization as a group. Classifiers do not agree with nouns, but instead select some inherent or temporary characteristics of a referent to narrow the scope of the verb.

- (23) a. *t-ító-gi* *to* *wkugi* **V-CLF**
 3-be_bare-CLF:cyl ART.NH tree
 'The trunk of the tree is bare (lit. The tree as a cylinder is bare).' elicited
 b. *t-ító-si* *to* *wkugi* **V-CLF**
 3-be_bare-CLF:sphere ART.NH tree
 'The crown of the tree is bare (lit. The tree as a sphere is bare).' elicited

Importantly, even though classifiers are not obligatory on verbs, they are frequent in discourse. Simple counts on the number of classifiers in a sample of seven texts

(in total 520 utterances) give the average presence of a classifier in 34% of the utterances, with more than half of the classifiers occurring on verbs (present in 18% of the utterances). The function of the occurrence of classifiers in discourse must therefore be investigated. Payne (1987) asserts that “the primary function of a noun classification system may be related to discourse level participant reference.” Aikhenvald (2000) and Contini-Morava and Kilarski (2013) review how the use of non-obligatory classifiers frequently depends on the definiteness and pragmatic properties of the referent noun. Classifiers are often used anaphorically instead of a noun phrase, usually for a referent that has already been introduced and is thus backgrounded (Mithun 1986; Seifart 2005). The remainder of this section summarizes the discourse functions linked with the occurrence of Mojeño Trinitario classifiers and/or external noun phrases in discourse, leaving aside their additional applicative function, which will be presented in the following section. Out of the sample of seven texts, the referential distance (RD) and topic persistence (TP) of the noun phrase associated with classifiers on verbs has been counted, following the general methodology of Givón (1983). As a means of comparison, the RD and TP of full noun phrases (without an associated classifier in the verb) have been counted as well.⁹ RD is the number of clauses to the left where the same referent is overtly present (the score of 20 is given to referents that are new). TP is the number of clauses to the right, in which the referent continues an uninterrupted presence as a semantic argument of the clause, whether marked overtly or not. The results given in Table 1 show that use of a noun phrase, a classifier by itself, or a combination of the two depend essentially on referential distance. For topic persistence, we can only note that referents expressed by an overt noun without a classifier tend to be less good topics. A word is necessary on nouns used without a classifier: they are usually used for completely new participants (hence the 20 maximal RD median number), or given, rather old and non-topic participants.

Table 1: Referential distance and topic persistence of different referential expressions.

	Average RD	Median RD	Average TP	Median TP
N	12,69	20,00	0,94	0
CLF+N	10,83	9,5	1,28	0,5
CLF	7,55	3	1,24	0,5

⁹ Counts of RD and TP of full noun phrases have been done on a sub-sample, in order to reach the same number (75) of full NPs as the number of CLF without an associated noun in the regular sample. Tokens of N+CLF are fewer (18).

First, when classifiers on verbs co-occur with the noun phrase, the referent of which they categorize, the noun phrase is foregrounded. This can be done either to introduce a new participant or to reactivate a given but old participant. This explains the rather high RD for CLF + N. Examples (20) and (22) show classifiers introducing an overt noun phrase as a new participant, while example (21) offers a new mention of a referent that was ‘given’ previously in the text and is presented again after a side sequence.

In some cases, a classifier can also point more specifically to only a part of the referent of the external noun phrase, and express a specific location within that referent as in (24) and (25). This results from the perspective of the speaker that the classifier highlights: in a way similar to more typical classifiers like *-pi*, which highlights some of the physical characteristics of a snake, for example, as a long, thin, narrow and flexible item, disregarding its temperature, texture, boundary types, possible excrescences, and arrangement, *-ku* focuses on the ‘inside’ part of the canoe, and *-ugi* zooms in on the facial part of the referent that it qualifies. The classifier *-ku* categorizes referents seen as empty volumes typically with parallel sides (path, house, canoe, etc.), and a resulting interpretation of its use is a relational locative one: it is usually translated as “the interior of”, as in (24). The presence of the classifier construes the ‘canoe’ as a hollow space, and this triggers the interpretation of the preposition as ‘in’.¹⁰ In (25), the classifier *-ugi* for ‘face’ is also only partly coreferential with the referent of the noun phrase, in a metonymic relationship with it, within a construction that could be qualified as external possession (‘I face-wash the baby’).¹¹ As a result, the classifier is expressing circumstantial information with respect to the event, i.e. a location orientation with respect to the noun phrase (cf. ‘I wash-at-face the baby’, ‘I am in a canoe, in the interior part of it’). I will refer to these uses of classifiers as “metonymic”.

Classifier for Oblique with overt NP, metonymy:

- (24) *n-ow-ku-'o* *te* *pkure*
 1SG-be-CLF:path-ACT PREP canoe
 ‘I am in a canoe.’ elicited

Classifier for O with overt NP, metonymy:

¹⁰ Note that the verb stem *owku'o* still requires the preposition.

¹¹ Payne and Barshi (1999: 3) define external possession as a construction “in which a semantic possessor–possessum relation is expressed by coding the possessor as a core grammatical relation of the verb and in a constituent separate from that which contains the possessum”.

- (25) *n-sip-ug-gio* *ñi* *'moyo*
 1SG-wash-CLF:face-ACT ART.M baby
 'I wash the face of the baby.' elicited

Second, classifiers on the verbs often occur without an associated noun phrase, because any noun phrase can be omitted for discourse reasons (see Mithun 1986; Payne 1987). The occurrence of a classifier without an associated noun phrase is not only common but is actually more common than its co-occurrence with an associated noun phrase in Mojeño Trinitario. Out the 93 classifiers to occur on verbs in our sample of seven texts, 15 occur with an associated noun phrase, and 75 without a noun phrase. The occurrence of the classifier without an associated noun phrase is used for two main purposes: the introduction of a new non-topical participant as in (26), (29), and (30) and the anaphoric mention of a given participant (27), which was previously present rather recently in the discourse (see the low RD in Table 1). The categorization given by the classifier helps retrieve the referent, either exophorically (it points to an element of the speech situation, as in (29)) or anaphorically (it points to an element already present or inferable from the speech context). In some cases, the interpretation of the referent is based on metonymy (often meronymy): the referent is retrieved through bridging, or indirect anaphora (for instance, *-si* 'sphere' is interpreted in (28) as referring to the head of the unique argument of the clause, even though 'head' is never expressed overtly). In still other cases, the classifier allows construing a referent as a non-specific 'kind' or as a prototypical member of the category expressed by the classifier (30).

Classifier for S, without NP, introduction of non-topic:

- (26) *t-mopku-mo*
 3-be.dark-CLF:fabric
 'It (the sky) was dark.' T_19_053

Classifier for O, without NP, anaphora:

- (27) *na-nok=po* *to* *muiji*, *n(a)-oktaya-ji-k=po*
 3PL-put-ACT=PFV ART.NH straw 3PL-step_on-CLF:amorph-ACT=PFV
 'They put down the straw, they step on it.' T_20_026

Classifier for S, without NP, metonymy:

- (28) *ty-uch-si-i-ko=o'i*
 3-go.out-CLF:sphere-APPROX-ACT=IPFV
 'The head (of the dog) was trying to get out.' Loc_S_71

Classifier for Oblique, without NP, deictic:

- (29) *v-eja-pue-gi-a*
 1PL-sit-CLF:ground-ACT-IRR
 ‘Let’s sit down (on the floor).’ T_{24_099}

Classifier for Oblique, without NP, introduction of non-topic:

- (30) *ty-okpoj-ku-’-ovi* *pak-gira-no*
 3-meet-CLF:path-ACT-1PL dog-DIM-PL
 ‘The small dogs meet us on the path.’ T_{17_030}

3 The applicative function of classifiers

In some cases, the presence of a classifier on the verb allows the coding of a peripheral participant as a core argument. An oblique (adjunct or peripheral participant) is normally encoded with a preposition, but a verb with a classifier may treat it as a direct object. The classifier on the verb categorizes this participant, which expresses most often location, but also sometimes source, goal or reason. When the verbal root is intransitive, the verb stem with the classifier is transitive. This is visible in the subject index and the presence of an unmarked direct object noun phrase. These changes in argument structure and valence are typical of applicative constructions.

Examples (31a–b) illustrate the applicative function of classifiers on an intransitive verb root, and examples (32a–b) on a transitive verb root. The first visible effect is the absence of the preposition before the noun phrase in the derived construction in (32). The second one (visible only on intransitive stems as in (31)) is the use of a semantically specific third person prefix instead of the unspecific third person prefix *t-*. An indirect consequence of the applicative function of classifiers is that the gender of the subject is specified in the applicative construction, even when the verb root is intransitive. This solves most possible ambiguities: for instance, in (31b), the subject being indexed as a third person masculine and the object being categorized as a long, thin and flexible object (rope-like), the noun phrase *eñi* ‘3M’ is undoubtedly the subject. In (32), the location that is expressed in (32a) as a prepositional phrase is expressed as a direct object in (32b), where the patient is not overt any more.

- (31) a. *t-semo te to t-echji-ri-k-wo-ro-pi*
 3M-be.angry PREP ART.NH 3-speak-PLURAC-ACT-MID-DERIV-CLF:fili
 ‘S/he is angry because of the word.’ elicited
- b. *eñi ñi-semo-pi-k=po*
 PRO.M 3M-be.angry-CLF:fili-ACT=PFV
 ‘He got mad (at these words).’ T_{20_046}
- (32) a. *ta-mutu ma-suk-cho te to mu-ésane.*
 3NH-all 3M-plant-ACT PREP ART.NH 3M-field
 ‘He plants everything in his field’ T_{21_50}
- b. *na-suk-je-ch=yore to smeno.*
 3PL-plant-CLF:interior-ACT=FUT ART.NH forest
 ‘They are going to plant (crops) in the forest.’ T_{21_023}

There is a semantico-pragmatic distinction between the derived and the non-derived constructions. In all cases, the applied object is presented as a participant central to the state of affairs, within the conceptualization of the event expressed by the verb. A typologically well-known discourse effect of the applicative is that the applied object shows a higher discourse status. A consultant describes non-applicative constructions as ‘plain descriptions’, while their applicative counterparts with an external noun phrase are described as ‘putting an emphasis on the location’. In the case of example (34), the consultant says that the location is presented as worthy of attention: there is an emphasis on the location, whether the horse went in the water voluntarily or that someone forced it into it, while the location is not perceived as particularly remarkable in (33). Similarly, in (35) the person is interpreted as sitting in the mud willingly – for example, in the absence of other places to sit in, while in (36) the person is interpreted as having sat in the mud unexpectedly. These interpretations result from two facts: first, the applied object is made “central” in the conceptualization of the event through applicativization; second, the fact that the applied object is expressed overtly and with an associated classifier foregrounds it in discourse. Just as with their basic use, classifiers with an applicative function can also occur without an associated noun phrase, as in (31). In example (31), the classifier *-pi* is used anaphorically, to refer to some piece of direct speech (some insults), that has been reported just before in the conversation. The use of the applicative construction makes the insults central to the event of anger, but the absence of an overt noun phrase referring to the insulting words in the very same sentence still maintains the words in the background, by only pointing to them anaphorically. The discourse functions of the occurrence of the classifier with or without a nominal phrase in applicative constructions therefore parallel

those of the classifier and/or nominal phrase in the basic qualifying use of classifiers, but in the applicative construction, the applied object is always presented as semantically central to the event expressed by the predicate.¹²

- (33) *to kwoyu ty-ow-'o te to 'une*
 ART.NH horse 3-be-ACT **PREP** ART.NH water
 'The horse is in the water.' elicited

- (34) *to kwoyu t(a)-ow-e-ko to 'une*
 ART.NH horse 3NH-be-**CLF:liquid**-ACT ART.NH water
 'The horse is in the water.' elicited

- (35) *n-eja-ko te to tyuraji*
 1SG-sit-ACT **PREP** ART.NH mud
 'I sit in the mud.' elicited

- (36) *n-eja-j-ko to tyuraji*
 1SG-sit-**CLF:amorph**-ACT ART.NH mud
 'I sit in the mud.' elicited

Another important difference between the applicative and the non-applicative constructions is the difference in specificity of the meaning of the relationship between the noun phrase and the predicate. Out of context, the prepositional phrases can be interpreted in many ways, as illustrated in the different possible translations of (37), because the preposition *te* is semantically vague. By contrast, the meaning of the different classifiers, along with the meaning of the verb root, restricts the possible interpretations of the noun phrase that they categorize. However, it is not the case that the very same classifier always applies the same semantic role to any applied object, whatever the verb root. Because the classifier *-je* construes the entities that it categorizes as closed containers (its

¹² I have not found in my corpus a clear example of a classifier with an applicative function and without an external noun phrase, which would not be anaphorical but instead point to some non-topical participants. It is not clear at this point whether this is due to an incompatibility of the applicative construction (and its discourse function) with the non-topical status of the participant, or whether this is due to the practical difficulties in identifying such a construction: in the absence of an external noun phrase and of any possible antecedents, the only evidence for the applicative construction is transitivization, which is only marked on intransitive roots with a third person subject. Elicitation cannot be used to check this compatibility, because elicited examples are not telling with respect to discourse functions (anaphoric vs non-topical).

prototype being a stomach) and the intransitive verbs it attaches to in (38) and (39) do not have a patient in their verb frame, it identifies its associated noun phrase as central to the event, and this noun phrase is interpreted as a location in (38), and an ‘allative’ in (39) (Compare these with (37) where more interpretations were accessible).¹³ The semantic contribution of the classifier used as an applicative marker is discussed again further below.

- (37) *t-junopo te to smeno*
 3-run PREP ART.NH woods
 ‘S/he runs **in/to/from** the woods.’ elicited

- (38) *ñi-jumpo-je-cho to smeno*
 3M-run-CLF:interior-ACT ART.NH woods
 ‘S/he runs **inside** the woods.’ elicited

- (39) *s-siop-je-ch=ripo smeno*
 3F-enter-CLF:interior-ACT=PFV woods
 She entered the woods. Path_S_39

The Mojeño Trinitario construction under study perfectly fits the usual definition of applicative constructions. “Applicative constructions are a means some languages have for structuring clauses which allow the coding of a thematically peripheral argument or adjunct as a core-object argument.” (Peterson 2007: 1). “Prototypical applicatives are derivational processes within the verbal morphology that add a participant to the set of core participants” (Mithun 2000: 78). This leads us to consider the construction under study as an applicative construction, as it enables the addition of a core participant to the argument structure of the verb. Moreover, it also shows the usual discourse function of the applicative constructions. Applicative constructions are well-known for making the applied object more salient in discourse. The applied object is either described as being high in topicality (Peterson 2007: 84) or focused (Marten and Mous 2014, see

¹³ Note that even though the meaning of the classifier *-je* can be translated as ‘the inside of’, it does not necessarily trigger an ‘in’ locative semantic role for the applied object. It is even clearer in the basic classifying function of the classifier *-je*. It construes a referent as a closed container, but a location is not necessarily inferred for the whole event. In *s-an-je-cho* 3F-pass-CLF: container-ACT ‘she passes through a village’, the village is not the location of the event but the medial stage of the path. In *n-sip-je-cho* 3F-pass-CLF: container-ACT ‘I wash a stomach (as a surgeon)’, the stomach is the patient, not the location of the event. In *'chope-ju'e-rich'o to namuii'o* big-CLF: container = still ART.NH 3PL-clothes ‘their clothes were still large’, the clothes are construed as a container, and no location is expressed for the state of affairs.

also discussion in Peterson 2007: 84–85). The Mojeño Trinitario construction under study therefore shows both the syntactic and the pragmatic properties characteristic of applicative constructions cross-linguistically.

Nevertheless, the markers of this construction show unusual properties for applicatives. The non-prototypicality of these applicative markers results from their recent grammaticalization out of classifiers. The remainder of this section discusses the unusual properties of the classifiers when used as applicative markers, where they still retain the properties of classifiers.

First of all, the morphemes triggering the applicative construction are multi-functional. Seven of the 31 classifiers (in bold in the first column of the appendix) are found as applicatives in natural texts, in the present state of the corpus.¹⁴ These classifiers do not in fact systematically trigger the applicative construction when used on the verb, but they can still be used with their primary discourse function: the applicative construction remains optional. Both constructions co-exist in the present state of the language, as shown by the comparison of the applicative construction (38) with the non-applicative construction (40), where the same classifier categorizes a location, expressed by a prepositional phrase. The fact that only some of the classifiers trigger the applicative construction is evidence that these morphemes have two functions: as classifiers and as applicatives. When used as an applicative, the classifier still retains its meaning as a semantic category. This multifunctionality is a direct result of grammaticalization. The literature gives many examples of a morpheme that triggers an applicative construction, but is not exclusive to this construction. For instance, causative-applicative polysemy has been well-described (Van Gysel 2018; Guillaume and Rose 2010). In many Bantu languages, applicatives are marked through a derivational suffix of the verb, which can have other derivational functions (Marten and Mous 2014).

- (40) *t-jumpo-je-cho* *te* *to* *smeno*
 3-run-CLF:**interior**-ACT **PREP** ART.NH woods
 S/he ran inside the woods. elicited

A second way in which the Mojeño Trinitario classifiers could be said to differ from canonical applicatives is that, in their classifier function, they are not purely verbal morphology. The distribution of this paradigm goes far beyond the verb in the language, as it occurs also on nouns, numerals and adjectives. Both Peterson and Mithun invoke ‘verbal morphology’ in their definition of applicative constructions: “Such constructions are signaled by overt verbal

¹⁴ It has not been possible to check the productivity of the construction with other classifiers.

morphology.” (Peterson 2007: 1). However, the distribution of the classifiers in their classifier function does not really matter in defining them as applicative markers. The crucial point is that they are found on the verb when triggering the applicative construction, so that the applicative is marked on the verb morphologically (rather than being a syntactic process like dative shift in English, for example).

The third and most interesting way in which classifiers differ from other applicatives with different origins is their semantics. The following typological generalizations on the semantics of applicative constructions are summarized from Peterson (2007: chapter 3). Canonical applicatives usually determine the semantic role of the applied object: recipient/beneficiary, instrument, comitative, allative, reason, purpose, etc. The most common configuration cross-linguistically is that the single applicative marker of a language introduces recipient/beneficiary applied objects only. If the applicative construction in a language covers several semantic roles, either each semantic role is marked morphologically by a distinct applicative marker, or they are all covered by a single applicative marker, or else one applicative marker is semantically general while others are more specific. The literature does not discuss how the semantic properties of the applied object impact the selection of the applicative markers, except for animacy, which can be a necessary condition for the use of benefactives (see also Nordlinger, this issue, for an applicative specialized for animate sources). Mojeño Trinitario has both applicative markers introducing an applied object with a specific semantic role, and others which are generic (the classifiers). The applicative marker *-(i)no* introduces only benefactive objects (9), and *-u* goal objects (10). The morpheme *-i'o ~ -iyo* introduces objects as fronted noun phrases that can express instrumental, location, cause, or manner (11). The seven classifiers that have been found so far triggering the applicative construction in my corpus (in bold in the Appendix) are not restricted to a particular semantic role of the applied object. The applied objects introduced by the classifiers are often introducing a location, but applied objects with other semantics are attested. The classifier introduces a cause in (31b); it introduces an ablative in (41); and an allative in (39). The semantic interpretation of the semantic role of the applied object introduced by a classifier would necessitate its own line of research, but it is striking at first glance that the semantics of the verb root play an important role: a cause is added to ‘be angry’ (31); an ablative is added to ‘go out’ (41), and an allative to ‘enter’ (39). In other cases, the applied object is probably interpreted by default as a locative. The semantic specificity of the classifier (in terms of physical properties) does not seem to play a crucial role in interpreting the semantic role of the applied object, even though it does play a role to some extent, as we have seen with the meaning “inside”,

which is essentially drawn from the “interior” meaning of the classifier *-je* in example (38).

- (41) *w-k-uch-ku-'=yo=o'i* *te to ma-peno*
 1PL-CAUS-go_out-CLF:path-ACT=FUT=IPFV PREP ART.NH 3M-house
 ‘We are going to take him out of this, to his house.’ T_{19_093}

Additionally, each classifier retains, in its applicative use, its semantics in terms of the physical properties of the classified referent. Their original categorizing value is not bleached; they still involve some ‘lexical’ meaning. They are therefore not selected according to the semantic role of the applied object, but rather according to the physical properties of the referent of the applied object. Consider example (31b) again. In this example, the classifier *-pi* is not being selected because it would specify that the applied object is a cause, but rather because the applied object pertains to the category of entities that are thin, long and flexible, as speech is categorized in this language. The fact that the applicative marker (i.e. the classifier) is selected on the basis of the physical properties of the applied object, independently of its semantic role, is quite unusual in the present state of the typology of applicatives. The only semantic property of the applied object that has been mentioned as being crucial in selecting an applicative marker cross-linguistically is animacy (Peterson 2007: 48). The implication of the Mojeño Trinitario data for the typology of applicatives is that observing applicatives with different diachronic histories can lead to uncovering new possible properties for applicative markers.

Finally, another interesting aspect of the applicative construction under study in synchrony is the attitude of the speakers. A consultant, when asked to react to the alternative between corresponding applicative and non-applicative constructions suggested that the non-applicative construction was ‘more correct’. He then probably realized that the roots used in the examples were not normally transitive, because he said approximately “this sounds weird, because we are not going/running/entering the woods, but going/running/entering *into* the woods” (*siopo* ‘enter’ is an intransitive root). Remember that while A-lability is common in the language (Rose 2011), there is no lability involving adjuncts. To qualify the evaluation of this consultant, it must be noted that no consultant ever explicitly said that these sentences were incorrect, or even felt like correcting them, when transcribing, translating, or doing elicitation. The conservative attitude towards the applicative construction judged ‘less correct’ and ‘weird’ could lead to interpretation of the applicative construction as a recently emerged construction.

In this section, we have seen that a verb with a classifier can encode a peripheral participant as an object, thereby making this participant more central to the event. This construction can therefore be called an applicative construction, and is morphologically marked by a subset of classifiers that retain their categorizing semantics and do not specify the semantic role of the applied object. These data are unique in showing a yet unknown type of applicative construction, triggered by classifiers. It is possible that other languages show applicative constructions triggered by classifiers, but this has not been described in the literature before. Moreover, even though classifiers on verbs categorizing obliques are not completely absent from the literature, they are not well-described.

The Mojeño Trinitario data are also particularly interesting because they show that applicative markers with different origins have different properties in synchrony. The next section will investigate the historical development of the construction.

4 Diachrony

In this section, we will relate the Mojeño Trinitario data to the general question of the possible sources of applicative markers, by considering the data in a diachronic perspective. In Section 4.1., I will discuss how a Mojeño Trinitario construction with a classifier on a verb can be reanalyzed as an applicative construction. In Section 4.2, I will briefly give arguments for the nominal origin of Mojeño Trinitario classifiers. Then, in Section 4.3, I will draw from the Mojeño data and the existing literature on the topic to conclude that nouns can be the sources of applicatives cross-linguistically, but that this development needs an intermediary stage.

4.1 From verbal classification to the applicative construction

The Mojeño Trinitario applicative construction with a classifier has most likely evolved from the construction with a classifier incorporated into a verb and categorizing either an object or an oblique. The evolution does not involve any change in morphology: the form and position of the classifiers are the same in their categorizing and applicative functions. The diachronic change involves a syntactic reanalysis. It involves both an analogy between the oblique and the direct object position, enabling the absence of the preposition before the peripheral participant, and the reanalysis of the verb argument structure. With

intransitive roots, this entails reanalyzing the verbal stem as transitive. With transitive roots, this entails a new semantic role for the direct object.

(42) Classifier on a verb categorizing an object	$V_{\text{trans-CLF:OBJ}}$	$[\text{NP}]_{\text{OBJ}}$
Classifier on a verb categorizing an oblique	$V_{(\text{in})\text{trans-CLF:OBL}}$	$[\text{PREP NP}]_{\text{OBL}}$
Applicative construction with classifier	$[V_{\text{intrans-CLF:OBJ}}]_{\text{trans}}$	$[\text{NP}]_{\text{APPL.OBJ}}$
	$[V_{\text{trans-CLF:OBJ}}]_{\text{trans}}$	$[\text{NP}]_{\text{APPL.OBJ}}$

In the case of Mojeño Trinitario, there seem to be facilitating factors internal to the language for the development of the applicative construction from verbal classification.

4.1.1 Analogy between obliques and objects

A line of research that would require a careful study of historical data is that the formal distinction between objects and obliques in Mojeño Trinitario may be recent. This line of research is based on the observation that the present Mojeño Trinitario preposition *te* has been grammaticalized from a noun *ye'e* with a third person non-human prefix (Rose 2009).¹⁵ In Old Mojeño, circumstantial participants are introduced by this ‘nouny’ form of the preposition (*taye'e*): if this form is seen as a nominal form, then the circumstantial participants were not morphologically distinct from prototypical objects. The relatively recent grammaticalization of the preposition and its original ‘nouniness’ seem to indicate that the major formal distinction between objects and obliques is recent.¹⁶ In that case, the actual applicative construction with a classifier may never have diverged from the construction with a classifier categorizing an object. Instead, the applicative function of the classifier could be an epiphenomenon of the emergence of an oblique status. When prepositions grammaticalized, obliques started therefore to be formally distinct from objects, but the preposition may have been optional on adjuncts categorized with a classifier. The classifier introducing some unmarked adjuncts (formally indistinct from objects) was “spontaneously reanalyzed” as an applicative. The analysis of an unmarked noun phrase as an oblique would not be the result of the

¹⁵ See note 4.

¹⁶ One should still investigate whether there were other types of oblique markers in Old Mojeño, and the relationship of the unmarked oblique with transitivity in that version of the language.

loss of a preposition, but of the absence of preposition-marking on that oblique. This remains a hypothesis that would be beyond the scope of this paper to explore.

- (43) *ti-yapo=pó ta-yee anumo-cù.*
 3-go_back=PFV 3NH-N sky-CLF
 ‘He went up to the sky.’ Marbán (1702, Catecismo menor:5)

Whether the previous hypothesis proves correct or not, Mojeño Trinitario objects and obliques are morphologically distinct synchronically, but they share the possibility of being categorized by the same classifiers, occurring in the same slot on the verb (compare for instance (24) and (21)). The analogy between obliques and objects may have facilitated the reanalysis of peripheral participants as objects, if the applicative construction has emerged after the grammaticalization of the preposition, or it may have facilitated the optionality of the preposition on some adjuncts, if the applicative construction is an indirect result of the emergence of the preposition and the oblique status.

- (44) Classifier on verb categorizing an oblique $V_{\text{intrans-CLF:OBL}}$ [PREP NP]_{OBL}
 Classifier on verb categorizing an object $V_{\text{trans-CLF:OBJ}}$ [NP]_{OBJ}

Also, in all cases, the lack of any specific semantics linked to the unique simple preposition in the language may have facilitated the rise in frequency of the applicative construction that was semantically more specific (remember the comparison between (37) and (38)).

4.1.2 Possible influence from metonymic categorization

The construction where the classifier is only partly coreferential with the external noun, as in (24) and (25), provides a model of a construction where the classifier is at the same time categorizing an object and expressing a location. It may have played a role in the emergence or maintenance of the applicative construction.

- (45) Classifier on verb with partly coreferential noun $V\text{-CLF:LOC/OBJ}$ [NP]_{OBJ}
 Applicative construction with classifier $V\text{-CLF:LOC.OBJ}$ [NP]_{LOC.OBJ}

4.1.3 Discourse function

This third facilitating factor is not language-specific. Section 3 showed that the function of classifiers on verbs is to make the co-referential participant more

salient in discourse. Classifiers categorizing obliques then have the role of putting forward an oblique. It is well-known that objects are better discourse topics than obliques cross-linguistically (Givón 1983: 3). This is also correlated with the fact that from a discourse point of view, “the essential function of applicative constructions is to indicate that the entity the construction refers to has a greater discourse salience or topic continuity than would otherwise be expected from it.” (Peterson 2007: 83, in line with Givón 1983). The likely developmental path of an applicative construction from a construction with a classifier on a verb could therefore have been facilitated by the shared discourse function of the two constructions.

This section has discussed how classifiers may have been reanalyzed as applicative markers in Mojeño Trinitario. This adds a new possible source of applicative markers to those already given in the literature (Peterson 2007). It is possible that this development is found in other languages, but a search for other cases is limited by the low quantity and quality of the descriptions of classifiers on verbs. Hopefully this paper will encourage discovery of other cases in the languages of the world.

4.2 From nouns to classifiers in the history of Mojeño

There are two types of arguments for the nominal origin of Mojeño Trinitario classifiers. One is the phonological and semantic similarity of some classifiers with free nominals. Another is the shared morphosyntactic distribution of classifiers and nouns in compounds.

First, even though most classifiers (18/31) do not show any relationship to a noun, some do (see Section 2.2). Moreover, the form *pi* has been reconstructed for Proto-Arawak as both a classifier for long, thin, and flexible items and a noun ‘snake’ (Payne 1991: 248). In Mojeño Trinitario, *pi* is a classifier with the very same meaning, but is not used as a noun for ‘snake’. Some modern Mojeño Trinitario classifiers like *pi* may have developed from nouns in remote times. The classifier *-gi* ‘cylindrical’, as well as the related noun *-gira* ‘seed’, both had the form *ki* in Old Mojeño (Marbán 1702: 88, 586). There are therefore arguments that Mojeño Trinitario classifiers have been developing from nouns at different times. This points to various cycles of the development of classifiers.

Second, nominal roots are found with a distribution similar to that of classifiers. They can attach to other nouns (43), numerals (44), adjectives (45) and verbs (46). They are considered nominal roots in compounds, rather

than classifiers, because they have the exact same form and meaning as a noun phrase head.¹⁷

- (46)

to

*manka-**chpu***

ART.NH mango-**trunk**

'the mango tree trunk' elicited

N-N
- (47)

*api-**pgienu***

two-**neck**

'two necks' elicited

NUM-N
- (48)

*ema 'chope-**tupara'o***

3M big-**charge**

'he has the biggest responsibility' T_24_006

ADJ-N
- (49)

*t(i)-v(e)-**o'i-ri-ko***

3-take_out-**fruit**-PLURACT-ACT

'he collects fruits' elicited

V-N

Nominal roots and classifiers therefore have very similar distributions, with the crucial exception that classifiers cannot be used as the single element of the head of a noun phrase (Table 2). While all the nouns can be used as noun phrase heads, usually preceded by an article, classifiers cannot head a noun phrase with an article, without attaching to another root. Moreover, nominal roots and

Table 2: Distribution of nouns and classifiers.

	N	CLF
as NP head	✓	✗
on numerals	✓	✓
on adjectives	✓	✓
on nouns	✓	✓
in verbs	✓	✓

¹⁷ The only formal differences between the nominal root used in a compound and that used as the head of a noun phrase are explained by syncope. A process of rhythmic syncope deletes some metrically weak vowels in words (Rose 2019). The identity of the vowels that are deleted therefore depends on their structural position within the word. This formal difference is however not restricted to the distinction between noun phrase heads and nouns in compounds, but is also observable, for example, between the possessed and the non-possessed forms of a noun.

classifiers do not have exactly the same functions in their shared morphosyntactic contexts. For instance, both classifiers and nominal roots are used for derivation on nominal roots, but only classifiers can have a qualifying function. A comprehensive account of these differences falls beyond the scope of the present paper, and the reader is referred to Rose et al. (Submitted) for more details.

In the general literature, classifiers are commonly assumed to originate in nouns (Aikhenvald 2000), more specifically in measure terms, compounds (Seifart 2010) and incorporated nouns (Mithun 1986: 395). The Mojeño Trinitario data hint at such a possible development path. Nouns could have developed into classifiers in all the contexts where they compound with another root: not only on nouns and verbs, as has previously been discussed in the literature, but also on numeral and adjectival roots. The nouns most frequently used in these compound constructions may have started to bleach semantically and reduce phonologically, and resulted in items that were thereafter distinct from their source nouns. They could then have developed additional functions. Unfortunately, there is no attestation of an earlier stage of the language with compounds but without classifiers: these are already attested in the older source on the language (Marbán 1702). There is however sufficient evidence to assert that it is highly likely that Mojeño classifiers developed out of nouns, and this hypothesis is in line with the general knowledge on the development of classifiers cross-linguistically. Given that Mojeño Trinitario classifiers have been reanalyzed as applicatives (Section 4.1) and that they originally come from nouns (Section 4.2), our data can participate in the debate on nouns as a possible source for applicatives (Section 4.3).

4.3 Nouns as a source for applicative markers

Peterson's (2007: 140–141) main point about nouns as a possible source for applicatives is that the grammaticalization path from noun to applicative always needs an intermediate stage (for example with the noun having first grammaticalized into an adposition or a directional). The Mojeño Trinitario case fits well with this assertion: the grammaticalization path from noun to applicative is not direct. Noun classification forms a necessary intermediate step in this path. And noun classification is itself a diachronic follow-up of noun incorporation. In consequence, there must be two intermediate steps between nouns and the applicative morpheme in this partly hypothetical diachronic scenario, as schematized in (50). In brief, though Mojeño Trinitario data provide a new insight into a possible grammaticalization path from nouns to applicative, nouns are not the direct source for the applicative in this path.

(50) *Noun* → *noun incorporation* → *classifier in verb* → *applicative*

Table 3 compares the Mojeño Trinitario case with three other cases where it has been argued that an applicative is derived from a noun. The first one is the grammaticalization of a lexical suffix originating in the noun for ‘face’ into a dative applicative marker in Halkomelen (halk1245), a Central Salish language (Gerdtts and Hinkson 2004). Salishan lexical suffixes denote body-parts, basic physical or environmental concepts, cultural items, and human/relational terms, and they are highly polysemous. The lexical suffix for ‘face’ is itself used with locational and directional extensions. When suffixed to verbs, lexical suffixes have a function equivalent to classifying noun incorporation, highlighting some aspect of an external noun phrase. Importantly, this noun phrase can be an oblique adjunct. The suffix for ‘face’ has developed into a goal applicative marker, a use in which it does not retain its original meaning. The second case is the grammaticalization of the incorporated body-part ‘hand’ into an applicative marker (for an animate source or location) in the Murrinhpatha language from Australia (murr1258), see Nordlinger (this issue). This development would have arisen from the external possessor construction where the incorporated body part co-occurs with an overt noun phrase and is reinterpreted as ‘association with the body-part’. The grammaticalization as an applicative marker with a cross-linguistically unusual meaning ‘human source/location’ parallels the bleaching of the noun for ‘hand’ into the more general ‘person’ meaning attested elsewhere in the language. The semantic specificity of the applied object as ‘animate’ must be attributed to the source of the applicative. The third case involves the Circassian languages of the North Caucasus (Arkadiev and Maisak 2018). Adyghe (adyg1241) and Kabardian (kaba1258) each show about twenty prefixes derived from nouns (mostly body-parts), which are used as locative applicatives specifying the spatial configuration of the event. These so-called ‘locative prefixes’ introduce a location in an indirect

Table 3: Different intermediate steps on the path between noun and applicative.

N	→ lexical suffix	→ applicative	Halkomelen	Gerdtts and Hinkson (2004)
N	→ incorporated body-part	→ applicative	Murrinhpatha	Nordlinger (this issue)
N	→ incorporated body-part	→ applicative (locative preverb)	Adyghe and Kabardian (Circassian)	Arkadiev and Maisak (2018)
N	→ classifier on verbs	(→ applicative)	Mojeño Trinitario	this paper

object position, that can be either marked as an oblique, unmarked or prefixed in the verb (except if third person). A parallel construction is found with an incorporated noun (still showing the form and meaning of the full noun), and the same argument structure. The authors argue against the hypothesis that the locative prefixes are grammaticalized forms of postpositions. Instead, they propose that the applicatives are derived from nouns, through the noun incorporation construction.

What these four cases share is that the direct source construction involves an element incorporated into the verb, that this element has a nominal source (but differs both formally and semantically from it), and that it does not associate to a core argument, but to either an external oblique as in Halkomelen and Mojeño Trinitario, or an external possessor in Murrinhpatha. None of these cases can therefore be used as arguments for a direct development of nouns into applicatives. Instead, they all show an intermediate construction where the element historically derived from a nominal is incorporated into the verb, and has a much more general meaning than the original noun. In this incorporated position, it can occur (at least in some uses) with a full noun external to the verb, and adds some ‘relational’ meaning between the event and the referent of the noun phrase. This is in line with Peterson’s claim that the nouns have to be integrated into the verb word before they are reanalyzed as applicative markers. Mojeño Trinitario differs from the other languages in that the incorporated element does not necessarily have as a source a noun for a body-part. While these semantics could have seemed crucial in the development of the applicative from the previous literature, at least some of the Mojeño Trinitario classifiers show that this is not the case.

Mojeño Trinitario differs from the other three cases in that the original noun source of classifiers is not necessarily a body part, that the relationship with the source noun is not transparent synchronically, and that the classifier retains its meaning in terms of category of physical properties rather than having specialized for a specific semantic role of the applied object. It is similar to Circassian languages in that a large number of morphemes are reanalyzed as applicative markers.

5 Conclusion

This paper has described a construction in Mojeño Trinitario in which a classifier appears on a verb, taking an object argument with a circumstantial meaning. The verb if intransitive is transitivized, and the object argument is not marked by

a preposition. This construction qualifies as an applicative construction, but the seven classifiers attested up to now as functioning as applicative markers show some unusual properties linked with their diachronic origin: the applicative markers are selected according to the physical properties of the referent of the applied object, rather than its semantic role within the sentence.

There is good evidence that Mojeño Trinitario classifiers come from nouns, and the reanalysis of the construction with verbal classification is rather straightforward, involving an analogy between the oblique and the object and the reanalysis of the argument structure of the verb. This development of an applicative construction from verbal classification may have been facilitated by several factors internal to the language, as well as by the cross-linguistically shared discourse function of classifiers on verbs and applicative. A more general conclusion is that applicative markers can indeed develop from nouns, but as Peterson (2007: 140–141) has asserted before, nouns are not a direct source for applicatives. Intermediate steps are necessary, and this paper offers a new possible intermediate step in the grammaticalization of nouns into applicative: classifiers on verbs.

Besides contributing to the debate on the genesis of applicative markers, Mojeño Trinitario data also contribute to the typology of nominal classification with two functions rarely discussed in the literature (classification of obliques, and the applicative function of classifiers). It also contributes to the typology of applicatives, by showing that classifiers can be used as part of an applicative strategy, and show some semantic properties not described before for applicatives.

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Abbreviations in glosses: ACT=active; APPL=applicative; APPROX=approximative; ART=article; CAUS=causative; CLF=classifier; DEM=demonstrative; DERIV=derivative; DIM=diminutive; F=feminine (singular); FUT=future; GPN=generic possessive noun; H=human; HAB.P.NZ=habitual patient nominalizer; INTENS=intensive; IPFV=imperfective; IRR=irrealis; M=male (singular); MID=middle; NEG=negation; NH=non-human; NUM=numeral; PFV=perfective; PL=plural; PLURACT=pluractional; PREP=preposition; RED=reduplication; SG=singular.

Appendix

Mojeño Trinitario classifiers and their semantics (in bold in the first column, classifiers attested as applicatives; in bold in the fourth column, a prototypical member)

Form	Gloss	Definition	Core members	Peripheral members
-cho -che	CLF. plank	2D, flat, rigid, and bounded	plank , bench, wall, door, roof	brim of hat, wheel of ox cart
-gi -gie	CLF.cyl	1D, cylindrical	trunk , trees, stick, bone, broom handle	grain of rice, coffee bean, corn kernel, fruit, hammock, saddle, back of a mounted animal
-ju'e -je	CLF. interior	interior of a bounded entity	stomach , inside of the forest, interior of a house or a room	in a village, inside of a tube, in an oven
-ji	CLF. amorph	amorphous, non-dimensional, mass of undistinguishable elements	vegetal area , forest, clothes, fields, leaves, grass	mud, wax, boiled food, marsh, thicket, meat, curd
-ku	CLF. path	space enclosed between parallel boundaries	well , hole, interior of a house, creek, river, path	street, doorway, hammock, vagina, from inside the mud, inside of pot, vehicle (canoe, cart, plane), under a contract, in a class, in a work, in military service, sun, moon, night, candle length
-mo -me	CLF. fabric	2D, flat, large and generally flexible	fabric , blanket, paper, clouds, folder, sky, skin	jerky, table, bench, back (of a skinny body), dogs (lying on the ground), flat fish, any flattened object or person
-miro -muri	CLF.face CLF. group	face group	face , front side group of people , group of animate beings	in front of group of inanimate individual, kinds, large quantity of mass
-mu'i	CLF. setting	space and time, visual experience,	looks , scenery, view, temporal extension (time, holiday, season)	atmosphere, appearance, looks (color, size), personality, experience

(continued)

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Form	Gloss	Definition	Core members	Peripheral members
-na	CLF.H CLF.GEN	human	person	any referent (on numerals)
-no	CLF.	curved and	back , banana,	torso, stick, bamboo, big animal
-ne	back	elongated ? (rare)		
-ño	CLF.	tubular	tube , barrel, flute	
-ne	tube			
-omo	CLF.	liquid	water , river, lake	breast milk, manioc beer,
-e	liquid			tobacco juice
-pa	CLF.	mass	soil , flour, sand,	dough, paste, minced meat
	mass		rice, seeds, corn	
-pa	CLF.	1D, long, thin and	needle , skewer	nail, wire, broiler, thin tools,
	needle	pointed		palm tree
-pa	CLF.	manioc	manioc root	
	manioc			
-pa'i	CLF.	2D, bare ground	ground , territory,	square, bottom of water
-pue	ground		earth, lawn, floor,	area, house, beach
			pampa	
-pe	CLF.	2D, flat, rigid with	blade , knife,	pot lid, board, saw, shallow
	blade	sharp boundaries	machete, plate, fish	dish
-pewo	CLF.foot	foot	foot	
-pewo'u	CLF.	hand	hand	
	hand			
-pi	CLF.fili	1D, narrow, long, thin and flexible, filiform	rope , snake, belt, lasso, thread, necklace	inga fruit, candle, speech, word, song, language, music, feeling
-pu'i	CLF.	3D, round (rare)	patch of forest (called "island"), hill	testicles
	island			
-si	CLF.	3D, sphere	head , onion, ball, pot, stone, garlic, gourd	branches of a tree, hair (on head), turtle, glass, bud, corn, knob of a handle, hole, insects
	sphere			looks
-ugi	CLF.face	face	face	
-ve	CLF.	thin and pointed, hard	comb , thorn	
	pointed			
-'a	CLF.	oval	egg , eye	testicles
	ovoid			
-'e	CLF.	exterior of a rounded element	belly , drum, balloon, skillet, bell, something inflated	sweet potato, bread
	convex			

(continued)

(continued)

Form	Gloss	Definition	Core members	Peripheral members
- <i>i</i>	CLF. atmo	atmosphere, non-tangible	weather , wind, sky	smoke, atmosphere (figurative), time, experience
- <i>i</i>	CLF.fruit	3D, round with protrusion	fruits , birds (duck, chicken ...), bottle, pot, cup, udders	can, barrel, coconut, tank (container), house, bowl made in calabash with beak, pitcher
- <i>o</i>	CLF. body	body	body of a person , body of an animal (bull, dog, cat, fish)	motorcycle seat, bundle (of firewood, cane or manioc sticks)
- <i>ugi</i>	CLF.eye	eye	eye	colors

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