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Multifunctionality of the verbal suffix *ʧ'e* ~ *-k'e* and analepsis in Nivaĉle (Mataguayo family, Gran Chaco region)[1]

ABSTRACT: The aim of this paper is to chart the multifunctionality of the verbal suffix *-ʧ'e* ~ *-k'e* which, according to the context, can be described as a analeptic marker (3), a (locative) applicative (4.1), a plural/distributive marker (4.2), or an associated motion suffix *itive* (4.3). A comparison with the other languages of the Mataguayo family (Maká, Chorote, and Wichí/'Weenhayek) will show that in all of them, the cognate morpheme shares a similar constellation of typologically highly unusual features.

KEYWORDS: Nivaĉle; Mataguayo languages (Gran Chaco); Applicatives; Associated motion; Analepsis.

RESUMEN: Este artículo se propone explorar la gama de usos del sufijo verbal *-ʧ'e* ~ *-k'e*, que según el contexto puede ser analizado como marcador de analepsis (3) aplicativo locativo (4.1), plural/distributivo (4.2), o movimiento asociado *itivo* (4.3). Un cotejo con las demás lenguas de la familia mataguayo (Maka, Chorote y Wichí/'Weenhayek) sugiere que en cada una el sufijo cognado comparte una misma constelación de rasgos altamente inusuales en las lenguas del mundo.

PALABRAS CLAVES: Nivaĉle; Lenguas mataguayo (Gran Chaco); Aplicativos; Movimiento asociado; Analepsis.

1. Introduction

Multifunctionality is a recurrent theme in descriptive linguistics, including in the field of the understudied Gran Chaco languages.[2] The aim of this study is to examine the different uses of the verbal suffix *-ʧ'e* ~ *-k'e* in Nivaĉle, including one I will refer to as '(morphological) analepsis', that will be the topic of Section 3, which comes just after a general presentation of Nivaĉle and the other languages of the Mataguayo family. As far as I am aware, analeptic markers have not been attested before. Section 4 explores the other functions of *-ʧ'e* ~ *-k'e* such as locative applicative (4.1), plural/distributive (4.2), and associated motion 'itive' (4.3). Section 4.4 will then try to tie up those different functions

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[1] I am grateful to two anonymous readers for their insightful comments and suggestions that helped improve this paper in many ways. I am fully responsible for any remaining shortcomings.

[2] For some works on the Gran Chaco as a linguistic area, see Carol & Messineo (2012); Comrie; Golluscio; Vidal (2010); Fabre (2007); Golluscio & Vidal (2009-2010); González (2014, 2015); Messineo (2011); Messineo; Carol & Klein (2016); Vidal & Gutiérrez (2010).

within the coherent conceptual space schematised below in Table 1. Section 4.5 discusses converging motivations for the use of -*tʃ'e* ~ -*k'e* which cannot be unambiguously decided upon. Section 5 is a comparative overview of the uses of the cognate of Nivaĉle -*tʃ'e* ~ -*k'e* in the other Mataguayo languages, Maká (5.1), Wichí and 'Weenhayek (5.2), and Chorote (5.3). This will show that, by and large, the multifunctionality of the cognates of this suffix follows the same general pattern in all Mataguayo languages.

2. Nivaĉle and the Mataguayo language family

Nivaĉle is one of the four languages belonging to the Mataguayo family, spoken exclusively in the Gran Chaco (Argentina, Bolivia, and Paraguay). It is spoken by about 14.000 persons in the Department of Boquerón (Paraguay) and an estimate of 400 in the eastern part of the neighbouring Province of Formosa (Argentina). At least in Paraguay, Nivaĉle is spoken by the vast majority of the members of the ethnic group, including children, although most speakers under 60 years old are bilingual in Spanish. The other languages of the Mataguayo family are Maká (exclusively spoken in Paraguay, mostly on the Paraguay River in front of Asunción), Chorote (Argentina and Paraguay), as well as Wichí/'Weenhayek (Argentina and Bolivia).

In terms of internal variation, both Nivaĉle and Maká are quite homogeneous. Within each of these languages, intercomprehension between speakers of different varieties is easy. Moreover, Nivaĉle and Maká appear to be more closely related to each other than to Wichí/'Weenhayek and Chorote. Within Wichí/'Weenhayek[3] (Nercesian 2014: 27) and Chorote (Carol 2014: 5-8), internal variation can more seriously affect intercomprehension. For an overview of the five linguistic families and two non-classified languages of the Gran Chaco see Golluscio & Vidal (2009-2010).

From a typological view point, Nivaĉle can be characterised as a polysynthetic, tenseless and radically head-marking language (dependent-marking is simply unavailable). There are three ways to convey temporal relations. First, temporal nouns similar to English adverbs like 'tomorrow', 'yesterday' or 'today' can be used. Another possibility is to employ time particles, which roughly situate an event on the timeline. Last, the deictic classifier[4] preceding almost every NP contains an indirect temporal clue. As Gutiérrez (2015) has shown, the main function of the evidential determiners is to

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[3] In terms of the number of speakers, Wichí/'Weenhayek is the most important Mataguayo language, with at least 40.000 speakers in Argentina, and 4.100 in Bolivia, where the language is known as 'Weenhayek (Nercesian 2014: 32). Chorote is spoken by around 3.000 persons (Carol 2014: 3). Maká has the smallest number of speakers (around 1.500).

[4] Gutiérrez (2015b) prefers to treat those particles as evidential determiners. For deictic classifiers in general, see Aikhenvald (2000: 176-181), where the author provides examples from neighbouring Guaykurú languages. Klein (1979) appears to be the first to apply the term noun classifier to this word class in Toba (Guaykurú). In her Ph.D. Thesis (Klein 1974: 223-231), she used the term locative particles. Vidal (1997) described the system of Pilagá noun classifiers making a basic distinction between positional and deictic classifiers. About the intriguing similarities and differences between the Guaykurú and Mataguayo deictic systems, see Messineo; Carol & Klein (2016) and Vidal & Gutiérrez (2010). Gutiérrez (2015b) analyses the sixteen evidential determiners of Nivaĉle. From these basic building blocks, further categories like third person pronouns, demonstratives, anaphoric, differential, relatives, indefinite, presentatives, and even some question words can be built. For a discussion and examples of these see Fabre (2016: 87-101).

carry two important features pertaining to the noun: gender (masculine vs. singular in the singular and human vs. non-human in the plural) and sensory evidentiality (firsthand sensory evidence, either at speaking time or before) vs. lack of firsthand sensory evidence (reported event or activity).[5] A pragmatic side-effect of firsthand sensory evidence is that it may provide a rough temporal clue. However, insofar as the scope of the deictic classifier does not extend beyond the noun, the temporal clue is relevant for utterance time, which needs not coincide with event time. In order not to overload the glosses of the examples, the evidential feature of the deictic classifiers is not indicated unless relevant for the ungoing discussion. Instead of adpositions and nominal cases, Nivacle uses an array of twenty applicatives, which are suffixed to the verb (Fabre 2016: 207).[6]

3. Analepsis

The term 'analepsis' and the adjective 'analeptic' comes from the field of literary studies, especially narratology and conversation analysis, where they sometimes replace the ill-defined and vague 'ellipsis' label (Auer 2014; Genette 1972: 82-105; 1982: 242-243).[7] The term 'flashback' mostly belongs to the terminology of film studies but refers to the same phenomenon. For our purpose, the label 'analepsis' comes in handy. In Fabre (2016: 241-244) I referred to it as 'anterior' and described it as a metaphorical extension of *-tʃ²e ~ -k²e* as an associated motion suffix 'going away'. What is remarkable is that in Nivacle, analepsis can have a morphological exponent within the verb. As far as I am aware, this feature has never been attested in other languages. All descriptions of analepsis underscore the link between an analeptic chunk of speech and its antecedent(s), which bears some similarity to the one linking an anaphor to its antecedent but this is achieved without morphological mediation.

In this section, I will show that in Nivacle the verbal suffix *-tʃ²e ~ -k²e*[8] can be used to refer to a pragmatically understood but often omitted referent consisting of a state

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[5] There are also two evidential particles, a reportative and a dubitative, which relate to the event as a whole.

[6] In what follows, Nivacle examples are phonologically transcribed according to the IPA conventions. Note that the status of laryngeal/glottalised vowels as phonological is debated. Whereas Stell (1989: 94-95) and Fabre (2016: 62) treat them as primitives, Gutiérrez (2013, 2015a, 2016) prefers to analyse them as sequences of /Vʔ/. This discrepancy of views is not relevant for the present paper. An anonymous reviewer observes that marking laryngealised vowels as /V̌/ (vowel topped with an uppercase glottal stop – or a comma) is not standard IPA. I agree, but I find it handy to cover a number of allomorphs, as it subsumes [vʔ], [vʔv] or [ɣ] (the latter indicating creaky voice under IPA conventions). This shorthand can easily fit Gutiérrez's sequence of two phonemes. The uppercase glottal stop over the vowel was also used by Stell (1989). Possibly, this practice goes back to Sapir (1992: 323, but originally published in 1930).

[7] Although the phenomenon had long been recognised as a *figure*, it was Genette (1972: 82) who coined the term 'analepsis' and defined its use (as opposed to its converse 'prolepsis'). For more details on analepsis, especially in the context of narrative representation, see Pier (2016) and Scheffel; Weixler & Werner (2014).

[8] *-tʃ²e* is the more frequent allomorph since *-k²e* is only used after /x/ and the rounded back vowels /ɒ, o, u/. The following abbreviations will be used in this paper: A = Agent, ANAPH = anaphoric, ANLP = analeptic marker, ANT.VENT = anticipated ventive, BEN = benefactive, BOUND = (subsumes 'oblong shape', 'opening,' and 'long shape'), CAUS = causative, CL = Classifier, CL.PLANT = classifier for plants, CON = conative, CONT = connector, CONTN = container, COORD.PL = coordinative plural, D = deictic marker, DAT = dative, DEM = demonstrative, DIF. PL = differential plural, DIST = distal, DISTR = distributive plural, D.M = masculine singular deictic classifier, DUB

of affairs of activity presupposed by the semantics of the verb. The term referent as understood here is not necessarily a single lexical item, but rather any chunk of the real or conceptual world which the speaker thinks must be (re)activated. If the referent is a lexical item, it will almost always follow the verb containing the analeptic marker. Examples of the analeptic use of -*ʧʔe* ~ -*kʔe* are illustrated in (1) and (2). (1) is a typical introductory chunk of speech made by a storyteller to ask his audience to listen to the story he is about to tell. In this case, both the lexical word 'story' and the entire tale can be considered as referents although they have been omitted. (2) includes an overt postponed referent. Note that the analeptic morpheme is attached to three verbs, first on -*ʧai* 'to tell, to say' and on both occurrences of the verb -*tʋi*, whose basic meaning (without the analeptic marker) is 'to be aware, to be conscious'. Note also the typical absence of the reported speech marker * łɒn* in such instances. The events depicted by the other three verbs -*snat* 'to make', -*fak* 'to tell', and -*tis* 'to give to somebody', are presented as the source of the things soon to be reported. In other contexts, the verb -*ʧai* can appear without the analeptic suffix, but only if the speaker is not *re*telling something s/he has been told *before*.

As stated in the introduction, Nivaĉle is a tenseless language. The only obligatory time-expressing marker (for both nouns and verbs) is the prospective *xaju* 'posterior to reference time'.[9] Note that the analeptic suffix is not a tense (neither absolute nor relative) since it does not assign any place on the timeline to the verb 'to tell'.[10] It simply points to the source of the impending story. The prospective *xaju*, however, is tense-like insofar as it sets the event of telling at a posterior point on the timeline.[11]

= dubitative, F = feminine, FUT = future, IND.POS = indefinite possessor, INH = inherent, INST = instrumental, INT = intensive, ITER = iterative, IRR = irrealis (realis unmarked), IT = itive, NEG = negative, P = patient, PL = plural, POS = possessive, PRON = pronoun, PROSP = prospective, PROX = proximal, PUNCT = punctual, PURP = purposive, Q = question tag, R = recipient, REC = reciprocal, REF = reflexive, REPORT = reportative, S = subject (of basic intansitive), SEP = separative, SUB₁ = subordinator + realis, SUB₂ = subordinator + irrealis, VENT = ventive, 1INC = first person inclusive

[9] In relation to a verb, the prospective *xaju* functions as a clitic that may attach to the verb or a word to following the verb. However, when *xaju* attaches to a noun, it cannot be separated from it, although each of them retains its own accent on the last syllable.

[10] One anonymous reviewer notes that Stell (1987: 269) claims that the suffix -*ʧʔe* ~*kʔe* can (among other things) mark 'past tense' when no other temporal clue is provided in the sentence. Although Stell does not provide examples in context (she only gives a few examples of what might be minimal pairs such as *xa-tiʃ* 'I dig' and *xa-tiʃ-ʧʔe* 'I dug') I have many examples of this verb (with or without accompanying time particles) where the latter must be translated in the present or the future rather than in the past. Moreover, the -*ʧʔe* suffix must be locative ('I dig/dug [a hole]') since it it may be replaced by other locative applicatives ('I dig/dug [inside the house/ underground']). The same misundersting about the function of -*ʧʔe* appears elsewhere in Stell's work (Stell 1987: 323, 403).

[11] The time particle *xaju* does not by itself indicate any precise time but only the idea of 'later than reference time' (either immediate or remote). The optional particle *jin* 'soon' is - from a purely grammatical viewpoint - superfluous since it is obvious that the purported audience is expecting the storyteller to tell a story. One may be tempted to say that Nivaĉle has two (verbal and nominal) tenses, non-prospective vs. prospective, were it not for the fact that *xaju* is the only obligatory 'tense', all others being both optional and of much lower frequency.

(1)

vôôi	nôque'esh	yeesh	ca	yichaich'e	yin
vɒ̀ i	*nɒ-ke-e-ʃ*	*j-eʃ*	*ka*	*ji-ʦ̍ai-ʧ²e*	*jin*
and	D.M-DEM-3-INST	1s-want	SUB₂	1s.IRR-tell-ANLP	soon

jaichaich'e	jayu …
xai-ʦ̍ai-ʧ²e	*xaju…*
1s-tell-ANLP	PROSP

'And now I am about to tell you, I will tell you …' (Vidal 2015: 48)

(2)

jâichaich'e	jâyu	ca	tsitoich'e	vooi	lhapesh
xai-ʦ̍ai-ʧ²e	*xaju*	*ka*	*tsi-tɒi-ʧ²e*	*vo̍i*	*ɫapeʃ*
1s-tell-ANLP	PROSP	D.M	3s-know-ANPL	and	DISTANT.PAST

ti	tsisnatesh		ca	yinôvot	matas	ca
ti	*tsi-snat-e-ʃ*		*ka*	*ji-nɒvot*	*matas*	*ka*
SUB₁	(3A)1P-make-3-INST		D.M.DEAD	1POS-father	things	D.M.DEAD

nifâcyam	pa	tsitisesh	taĵ	lhôn	ĉatin'e	pa
ni-fak-ja-m	*pa*	*tsi-tis-e-ʃ*	*tax*	*ɫɒn*	*katin²e*	*pa*
3s-tell-1-BEN	and	(3A)1R-give-3-INST	but	REPORT	however	and

ninastôich'e	jô
ni-nas-tɒi-ʧ²e-xɒ	
NEG-1s-know-ANLP-INT	

'I will tell you what I remember about what my father long ago did with me [what he taught me] and what he told me and gave me, though I don't remember clearly' (TIERRA LIBRE 2015: 129)

As noted before, Nivaĉle analepsis can be coded as a verbal marker functioning as a temporal anaphor, whose (present or omitted) antecedent corresponds to a previous state of affairs, event or activity presupposed by the semantics of the verb to which it attaches. Analepsis is not fully grammaticalised. In some verbs, it appears to be obligatory, in which case it might be conceived as a derivation process (3a, 3c and 3d). However, it is my impression that this may have more to do with translation equivalence than with a grammar-internal idiosyncrasy of Nivaĉle. The frequency of use of *–ʧ²e* as an analeptic marker is not particularly high but it is conspicuous enough to deserve investigation. Since it is used in both narrative and conversation, the use of the analeptic marker is a pivotal ingredient of the Nivaĉle language.

(3a)

vɒ̀m 'to disappear/to loose' → *-vɒm-xat* 'to destroy' (*-xat* = causative)
→ *-vɒm-xat-* 'to pardon' ('erase something done')
-tɒi 'to be conscious; to have knowledge' → *-tɒi-xat* 'to inform; to make known'
→ *-tɒi-xat-* 'to remind'; 'to inform about something done' (cf. example 1b)
-ʦ̍ai 'to tell; to say' → *-ʦ̍ai-ʧ²e* 'to recount'; 'to tell about something heard before'
-pe²ja 'to hear' → *-pe²ja-* 'to understand'
-xumti 'to be aware; to care for' → *-xumti-* 'to feel nostalgic'

(3b)

javôôm	lhja yipesôjiy
xa-vɒ̀ m	*ɫ-xa ji-peso-xij*
1A(3P)-loose	F-D 1POS-money-CONTN

'I lost my wallet'

(3c)

avômjateshch'e		pa	avinjayu	pa	yinôôt
a-vɒm-xat-e –ʃ-tʃʔe		*pa*	*a-vinxaju*	*pa*	*jinɒ́ t*
2A(3P)-disappear-CAUS-3-INST-ANLP		D.M	2POS-thirst	D.M	2POS-water

'Quench our thirst with water'

(3d)

jayalhesh'a	ca	avômjatch'eyam
xaj-ał-e-ʃ-ʔa	*ka*	*a-vɒm-xat-tʃʔe-ja-m*
1s-ask-3-INST-2	SUB₂	2A(3P).IRR-disappear-CAUS-ANLP-1-BEN

'I beg you to forgive me'

With other verbs, whose semantics would equally require some previous event or activity, analeptic past is optional (4) – (10).

(4)

-tɒvaklu 'to forget'; *-aitʃavał* 'to think' →*-aitʃavał-*'to remember'

(5)

jaichavalhch'een	ca	lhêliish
j-aitʃavał-tʃʔe-en	*ka*	*ł-klíʃ*
3A(3P)-think-ANLP-INT	D.M.EXTINCT	3POS-word

'S/he remembers/remembered his/her words'

(6)

sasjop	ca	nimôqu'esha'ne
Ø-sas-xop	*ka*	*ni-mɒ-kʔe-ʃaʔne*
3s-be.bad-PURP	SUB₂	3s.IRR-sleep-PL-DOWN

ti	jaichavalhaan	ja	lhaôs
ti	*j-aitʃavał-a-an*	*xa*	*ł-ɒ́s*
SUB₁	3A(3P)-think-PUNCT-INT	D.M.ABSENT.BUT.KNOWN	3POS-son

'They could not sleep because they were thinking about their son'

(7)

tsitôvacluei	ja	jiqui'isjayanach
tsi-tɒvaklu-e-i	*xa*	*ji-kʔisxajanatʃ*
1A(3P)-forget-3-DIST	D.M.ABSENT.BUT.KNOWN	1POS-book

'I forgot my book' [the book is concrete and distant]

(8)

Lhantôvacluelha

łan-tɒvaklu-eł-a

1sₚ-forget-COORD.PL-PUNCT

côque	alhjayashelh
kɒ-ke	*Ø-ał-xajaʃ-eł*
D.M.EXTINCT-DEM	2POS-pray-NMLZ-COORD.PL

'You have forgotten your prayer' ('you-SG with him/her/they' = you-PL)
[abstract entity]

(9)

tsitôvacluqu'e	cava	nifacyam
tsi-tɒvaklu-kʔe	*ka-va*	*ni-fak-ja-m*
1sₚ-forget-ANLP	D.EXTINCT-PL	3s-tell-1-BEN

'I have forgiven what s/he said to me' [abstract]

(10)

nitôvacluemch'e

ni-tɒvaklu-e-m-tʃʔe

3sₚ-forget-3-BEN-ANLP

'S/he has forgiven him/her'

In still other verbs, the analeptic past is not used, even in a context presupposing some previous stimulus (11). The distribution of the analepsis across verbs would require further investigations with native speakers. In contexts where past time can be inferred from other markers, the presence of the analeptic marker is simply redundant, hence can easily be omitted.

(11)

jalheclôjesh	ti	nintsen	japi	afteivot
xa-łeklɤx-e-ʃ	*ti*	*ni-nts-en*	*xa-pi*	*a-ftei-vot*
3s-think-3-INST	SUB₁	NEG-(3A)1P-like	D-PL	2POS-parent-PL.KIN

'I think your parents don't like me' (present state of affairs based on past experience)

As pointed out above, the Nivacêle verb does not display any tense category but some rough idea of relative time can be inferred from different time particles and from the deictic classifiers which obligatorily precede nouns. The deictic classifier *ka* in examples (5) (8) and (9) shows that the noun is a no longer existing masculine. By contrast *xa* in (6) and (7) shows that the referent is masculine and seen before by the speaker. In all five examples, the object noun belongs to the realm of past. If we consider the verbs -*aitʃavał* 'to think' and -*tɤvaklu* 'to forget', we see that in the first verb the analeptic marker is redundant in (5). Its omission in (6) is understandable insofar as the deictic classifier already links the verb to its object in the past. As for the second verb, the analeptic marker is redundant in (9) and its omission in (7) and (8) does not hinder the correct interpretation. However, the presence of the analeptic marker in (10) is crucial since **ni-tɤvaklu-e-m* would be just as ungrammatical as its English rendering 'S/he has forgotten for him/her'. Note that the third person -*e* + locative applicative distal -*i* in (6) locate the book in a distant location (or at least out of present reach).[12]

4. -*tʃʔe ~-kʔe* as a multifunctional marker

Analepsis has no devoted, exclusive marker in Nivacêle. Apart from being an exponent of analepsis, -*tʃʔe ~-kʔe* can be used as 1) a locative applicative, 2) an associated motion suffix (*itive*), or 3) a plural/pluractional/distributive. Although there can be only one -*tʃʔe ~-kʔe* per verb, it is relatively easy to tell out from the context which function we are dealing with. It is a well-known fact that the treatment of (grammatical) multifunctionality (or polysemy) varies significantly across theories. For example, within the classical (philological) tradition, the functions – however distinct – of each nominal case are usually described one by one in the syntax, without giving much thought on their possible relations.[13]

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[12] Although the punctual applicative -*a* (as in 8) can normally refer to concrete and abstract entities alike, it must be used here instead of the distal (a prayer cannot be a place at which an object can be forgotten).

[13] For Latin, Ernout & Thomas provide a list of the different uses of the accusative and genitive (Ernout & Thomas 1964:17–38 resp. 39–61). The same pattern is followed for Greek in Humbert (253–266 resp. 267-283) and more recently Northern Saami (Nickel 1990:483–486 resp. 486–491for the same two nominal cases).

Another procedure consists in having the distinct functions of nominal cases distributed throughout the grammar, depending on the constructions in which they appear.[14] Within the field of linguistic typology, much emphasis has been put on building semantic maps (Cristofaro 2010; Georgakopoulos & Polis 2018; Haspelmath 2003; Malchukov 2010). I will apply this approach in 4.4, where I present and discuss a preliminary semantic map of the uses of the suffix -ʧʔe ~ -kʔe in Nivaĉle.[15]

4.1. -ʧʔe ~-kʔe as a locative applicative[16]

As a locative applicative -ʧʔe ~-kʔe indicates that the state of affairs or activity a – takes place within a relatively clearly bounded area – ground/trajectory – or involves a recipient-like object with an opening (12), or b) involves a longish object or ground (13-16). A more convenient cover term than BOUND could be 'profiled ground' (a possibly slightly concave polygon or curved ground) or 'outlined shape or figure', whose most salient manifestations include long objects and objects/containers with widish openings.[17] However, BOUND has the advantage of being a short gloss.

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(12)
lhpa          fisincataj           yuesha
ł-pa          fisinkatax           j-u-e-ʃ-a
F-D           fly                  3A-accept-INST-PUNCT
pa            yuich'e              lhac'ô'
pa            j-ui-ʧʔe             ła-kʔo
and           3s-enter-BOUND       3POS-arse
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'The fly accepted (the challenge) and entered through his asshole (in order to check whether the protagonist was dead or merely pretended to be)' (Seelwische 1994: 22) (13)

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(13)
pitesch'e                  nava         acaĉlôi
Ø-pite-s-ʧʔe               na-va        a-kakłɒ-i
3s-be.long-PL-BOUND        D-PL         2POS-leg-pl
'You have long legs'
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[14] A good example of this can be found in the treatment of nominal cases in the huge Finnish grammar (almost 1700 pages) of Hakulinen et al. (2010).

[15] One anonymous reviewer suggested using one invariant gloss covering the uses of -ʧʔe ~-kʔe. For convenience, I opted for BOUND (as will be explained in more details in 4.4). Suffice it to say that the vagueness of this term often requires additional explanations in order to fully understand the examples. However, when the use of -ʧʔe ~-kʔe extends outside the domain of locative applicative, such as associated motion itive or analeptic, BOUND is no longer useful as a descriptive term and will be replaced by other gloses.

[16] Nivaĉle applicatives are discussed in Fabre (2016: 198–241) and (2017: 94–117).

[17] Containers with narrow openings require a different applicative, -ʃi(ʔ) ~-xi(ʔ), which also serve to derive nouns of (tight) containers.

(14)

yitovosch'e	cava	lhcaĉlôi
ji-tovos-ʧ²e	*ka-va*	*ɬ-kaklɒ-i*
3A(3P)-cut-BOUND	D.EXTINCT-PL	3POS-leg-PL

'They amputated him/her'

(15)

c'anashjatch'e	jayu	pa	is	nôyish
k²a-naʃxat-ʧ²e	*xaju*	*pa*	*Ø-is*	*nɒjiʃ*
1A(2P)-show.the.way-BOUND	PROSP	D.M	3S-be.good	path

'I will show you the right way'

Since Nivaĉle has neither nominal cases or adpositions (and hence no oblique phrases), applicatives, in particular locative applicatives, play a central role. They may also correspond to preverbs. Locative applicatives are used to relate figures (or trajectors) to grounds (or landmarks, cf. Langacker 1987 and Talmy 2000), assign paths to figures (cf. Grinevald 2011 and Fortis & Vittrant 2011) and end up being used much like noun classifiers albeit they are suffixed to verbs (cf. Aikhenvald 2000). The latter often happens where a noun in object function can simultaneously be conceptualised as a ground as in (16). It should be noted, however, that such classifier-like uses can hardly be treated as canonical classifiers. Even if one cannot preclude that applicatives in noun classifier function be attached to the predicate in the same way Nivaĉle applicatives may correspond to adpositions in other languages, such classifiers would be highly non-canonical. As Aikhenvald (2000: 86) notes 'it is not always clear whether a language has established noun classifiers or whether there is just a discourse device which consists in occasional pairing of generic and specific nouns'.

(16)

ap'aclaneshch'eyam			na	yituuc
a-p²aklan-e–ʃ-ʧ²e-ja-m			*na*	*ji-tùk*
2A(3P).IRR-rub-3-INST-BOUND-1-BEN			D.M	1POS-arm

na	yucuve	t'ajuya
na	*jukuve*	*t²-axuj-a*
D.M	bread	3s-be.directed-PUNCT

'Rub some flour on my arm!' ("rub-it-with-BOUND-me-for")[18]

The case for the existence of a classifier use of applicatives in Nivaĉle needs further testing. I tentatively added this possibility in the semantic map below.

4.2. -*ʧ²e ~-k²e* as a plural/distributive marker

Since a plurality of actors and/or activities necessarily takes up a certain amount of space on a ground, the function of -*ʧ²e ~-k²e* as a plural/pluractional/distributive is a

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[18] Strictly speaking, *jukuve t²axuja* (literally 'that [which] is designed for bread') may refer to anything used in making bread, including yeast. However, in the context of this story, it refers to flour. Note that the speaker could have chosen the lexeme for 'flour' (*ɬa-mɒk*). However, native speakers of Nivaĉle frequently resort to what we could consider 'vague' terms whenever the context will provide the necessary clues.

plausible metaphorical extension of the use of the above-mentioned locative indicating a fairly clearly bounded area. Some examples can be seen in (17), (18) and (19).

(17)
tsaccunch'e
Ø-tsaxkun-tʃ'e
3s-eat-BOUND
'They eat/ate (together on the ground or around a table)'

(18)
lhatsaccunelhch'e   japi   afteivot
ła-tsaxkun-eł-tʃ'e   *xa-pi*   *a-ftei-vot*
2s-eat-COORD.PL-BOUND   D-PL   2POS-parent-KIN.PL
'You (sg) eat/ate with your parents'

(19)
pa   yi'yecle   yôjqu'enelhch'e
pa   *ji'ʔjekle* *j-ʋxkʔen-eł-tʃ'e*
D.M   tapir   3A(3P)-copulate-COORD.PL-BOUND
lhpa   yi'yôôj   lhch'acfa
ł-pa   *ji'ʔjʋ̀x*   *ł-tʃ'akfa*
F-D   jaguar   3POS-spouse.with.children
'The tapir copulated with the jaguar's wife' (MLI 1965: 37)

As will be seen below under §5, similar examples of the corresponding applicative in distributive/plural function can be found in the other Mataguayo languages.

4.3. *-tʃ'e ~ -kʔe* as associated motion suffixe 'itive'

The verbal suffix *-tʃ'e ~ -kʔe* 'itive' (seen as going away from or past the reference point) is (together with *-xuł* 'seen as coming towards the reference point' and *-kʔoja* 'not yet seen but expected to be seen coming towards reference point') also one of the three associated motion markers. Remarkably, all three have extended uses and – in their canonical use as associated motion markers – the moving participant is *not* the subject of the verb, but most often the object or another participant.[19]

(20a)   (20b)
yi'van   yi'vanjulh
ji-ʔvan   *ji-ʔvan-xuł*
3A(3P)-see   3A(3P)-see-VENT
'S/he sees/saw him/her/it/them'   'S/he sees/saw him/her/them coming'

(20c)
yi'vanch'e
ji-ʔvan-
3A(3P)-see-IT
'S/he sees/saw him/her/it/them going away'

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[19] For the use of *-kʔoja* and *-xuł* in comparative constructions see Fabre (2016:246–248 and 251–252 as well as 2018).

(21)
jovalhc'oya   lhja   colectivo
j-oval-k'oja   *ł-xa*   *kolektivo*
3A(3P)-look-ANT.VENT F-D   bus
'S/he is/was (looking and) waiting for the bus to come'[20]

As can be seen in the next examples, the use of a locative applicative instead of associated motion suffix marks the endpoint of the trajectory of the gaze rather than physical motion of a participant. In (22a), the Patient's position is lower than that of the Agent and in (22b) the other way around. In turn, the applicative in (22c) indicates that the Patient is situated on a plane surface, but the Agent's position is not given. Plausibly, this is a result of pragmatic inference. Since there are two superimposed planes in (22a) and (22b)–B (the Patient) can only be said to be in a high position with respect to someone else, in particular A (the Agent or at least the speaker), which must be in a lower position. In contradistinction, sitting or lying directly on a surface as in (22c) can only apply to two entities on the same plane, one being the subject and the other a place (ground/trajectory).[21]

(22a)
yi'vanshicham
ji-ʔvan-ʃitʃam
3A(3P)-see-DOWN
'S/he sees/saw him/her/it/them (as observing from on a rooftop – top > down)'

(22b)
yi'vanchisham
ji-ʔvan-tʃiʃam
3A(3P)-see-UP
'S/he sees/saw him/her/it/them (as observing from the ground – down > up)'

(22c)
yi'vanapee̥
ji-ʔvan-ape̥
3A(3P)-see-ON.SURFACE

'S/he sees/saw him/her/it/them (riding a horse/swimming/sitting on a log)'

4.4. A semantic map for -*tʃ'e ~ -k'e*

As far as the suffix -*tʃ'e ~ -k'e* is concerned, metaphorical extensions can be aligned the following cline from more concrete to abstract within the conceptual space (Table 1). Since locative applicatives relate figures to grounds or paths, they provide information about how people interact with (and manipulate) nature and objects or conceive them

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[20] The verb -*ʔvan* 'to see' cannot be used here because -*ʔvan-k'oja* actually means 'to recognise' or, in other contexts 'to predict'. Rather than a derivation process, this is one of many recurrent metaphoric use of the anticipated ventive.

[21] With an intransitive predicate the FIGUER (subject) is simply located on a GROUND. When the predicate is transitive, we have an Agent, a Patient-FIGURE and a GROUND. The latter are on the same plane. Although I can provide no instance of the verb 'to see' used in that way, the following example suggests that the reflexive-reciprocal suffix (-*t*-) should be introduced: *ł-p'o-x-eł-ji-t-apẹ pa ji-vapenax-eł* [2A(3P)-cover-INST-PL-1-ON-SURFACE 1POS-shame-PL] 'You have covered us with [our] shame [s]' (psalms 44: 10).

in different situations. Within a narration involving a path, the verb will exhibit the applicative -*ʧ*ʔ*e* ~ -*k*ʔ*e* if it depicts movement along it or some particular aspect of it like its current state or length, but not if the speaker notes that a fallen tree blocks the way, a situation which requires -*ʃam* ~ -*xam* 'through, across', or still another if depicting a person standing rather than moving in the middle of the path and so forth. Note that the mention of a plate (a bounded circular shape) in (23a) would appear to require -*ʧ*ʔ*e*, which would be acceptable too. However, the speaker preferred to use another applicative (-*ʃi* ~ -*xi*), which is used for inherent qualities or foods cooked in a pot. In this case, it is clear that the speaker preferred to focus on the relation between eater and food rather than eater and plate. By contrast -*ʧ*ʔ*e* could not be avoided in 'I washed the plate' since such an activity crucially involves concrete manipulation of the object. (23b) illustrates still another applicative with the same verb.

(23a)
jaitsaccunshi   na   titech
xai-tsaxkun-ʃi   *na*   *titeʧ*
1s-eat-INH   D.M   plate
'I eat from/in a/the plate'

(23b)
jaitsaccun'e   na   mesa
xai-tsaxkun-ʔe   *na*   *mesa*
1s-eat-PROX   D.M   table
'I eat at a/the table'

Table1: Semantic map of the uses of the suffix -*ʧ*ʔ*e* ~ -*k*ʔ*e*
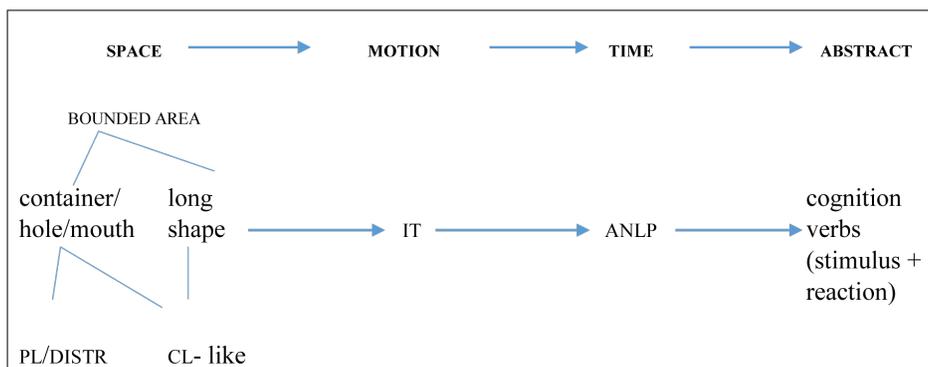
The lines leading down from the upper left corner of the map defined as 'bounded area' are not oriented. Here 'bounded area' (BOUND) defines two main (salient) sub-spaces, one corresponding to a container with a wide opening or its mouth alone, and the other an object with a long shape. The core meaning of 'bounded area' can further be extended, allowing a plural/distributive reading, whereby a plurality of individuals is seen as performing the same activity within a shared area/trajectory. Note the different plural marker in (24), where the negation makes it impossible for the distributive to appear (there is no available ground to be covered by a group of individuals not performing the activity

denoted by the verb). Instead, the plural marker -ʃaʔne must be used.[22] The classifier-like reading arises in cases like (13), (14) or (16) above, where Subject (s or A) or Object (P) and Location (GROUND) converge.

(24)
ninatsaccunsha'ne
ni-na-tsaxkun-ʃaʔne
NEG-3S.IRR-eat-PL
'They do not/did not eat'

Unlike (26), (25) does not allow the distributive plural since no specific eating place is involved (the speaker is criticising the behaviour of greedy eaters).

(25)
lhatsaccunelh	taj	ti	na ancha'vaielhei
ła-tsaxkun-eł	*tax*	*ti*	*na-a-nʧaʔvai-eł-e-i*
2S-eat-COORD.PL	but	SUB₁	NEG-2S-feel-COORD.PLPL-3-DIST
ca	napeshelhsha'ne		
ka	*n-ape-ʃ-eł-ʃaʔne*		
SUB₂	2S-fill-INST-COORD.PL-PL		

'You eat, but never have enough' (SBP, Haggai 1:6)

(26)
lhatsaccunelhch'e	japi	afteivot
ła-tsaxkun-eł-ʧʔe	*xa-pi*	*a-ftei-vot*
2S-eat-COORD.PL-BOUND	D-PL	2POS-parent-KIN.PL

'You (sg) eat/ate with your parents'

Note that the lines leading from left to right in the map are directional. Narrog & van der Auwera (2011: 323) state that semantic maps can be dynamicized by incorporating diachronic information and/or describing particular grammaticalisation paths, both of which can be represented in the form of arrows in a classical map, i.e. a map with connecting lines but no arrows. As far as diachronic date is concerned, my semantic map makes no claim since the other languages of the Mataguayo family follow more or less a similar pattern. However, the map reveals a robust grammaticalisation path beginning from the 'longish area' reading of the locative applicative suffix -*ʧʔe* ~-*kʔe*. First, one of the most frequent conceptual metaphors link space and time together (Heine; Claudi & Hünnemeyer 1991). It is rather natural that long objects are easily apprehended in perspective and the presence of a vanishing point easily suggests movement away from the vantage point of an observer, hence the arrow leading from 'longish' to 'associated motion itive' in the map. In turn, movements mediate between location and time. Describing two different locations for one and the same entity imply temporal change: LOC₁ + LOC₂ = TIME₁ + TIME₂, which is shown in the headings of the map as LOC> MOTION> TEMPORAL.

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[22] Nivaĉle has a strikingly high number of plural markers for verbs and nouns. Apart from the first person inclusive, speech act participant prefixes do not distinguish between singular and plural and the coordinative plural suffix is mandatory if there is more than one subject. A verb form which combines a first or second person prefix with the coordinative plural suffix -*eł* must be rendered as either 'I (exclusive) do/did X with him/her/them' or 'You (sg) do/did X with him/her/them'. In the third person, plural markers are frequently omitted, unless they are neither coordinative nor distributive.

The analeptic/temporal reading is an abstract version of physical movement, whereby the abstract movement carrying the information arises (or more aptly suggests itself) from the past, enters the mind of the speaker, and then incorporates it into his/her narrative. The addition of cognition verbs at the extreme right of the map is tentative at best as only some verbs expressing a slightly delayed reaction to a (frequently invisible) stimulus like sound or scent. However, such verbs may take other suffixes, in particular the associated motion suffixes -*xuɬ* 'ventive' (in the abstract sense of an immediate reaction to a stimulus coming towards the experiencer) or -*kʔoja* 'anticipated ventive' (reaction to a potential stimulus) as well as benefactive/malefactive -*m* and further options. Plausibly, the use of -*ʧʔe ~ -kʔe* with some cognition verbs like 'to remember' or verbs denoting a reaction to a stimulus (36) and (38–41) could simply be analysed as analepsis but this cannot apply to all cases.

4.5. Competing motivations for the use of -*ʧʔe ~ -kʔe*

The motivation to use the verbal suffix -*ʧʔe ~ -kʔe* is not always clear. There may also be more than one reason to use it, and may be difficult or impossible to keep them apart. Strikingly, many utterances including a verb presupposing a previous activity or state of affairs fail to exhibit the analeptic suffix. In fact, simultaneously competing motivations may lead to the use of -*ʧʔe ~ -kʔe*. A few examples are given here for illustration. Example (27) is a statement about a flight of doves having eaten up maize seeds that had previously been strewn on the ground. Now, the suffix -*kʔe* could equally be explained as a locative (seeds strewn on an area), as an analepsis (the seeds were strewn before they were eaten), or as a distributive plural. In any case, all three motives lead to the use of -*kʔe*.

(27)

java	ofos	tujqu'e	cava	niêlôôtsich
xa-va	*ofo-s*	*Ø-tux-kʔe*	*ka-va*	*niklʋ̥tsiʃ*
D-PL	dove-PL	3A(3P)-eat-**kʔe**	D.EXTINCT-PL	maize

'The doves have eaten up the maize'

In (28) a man walking on a path in the night stumbles on a dry fallen cactus and puts fire to it in order to see his way. There is a double motivation of using -*ʧʔe*: the suffix is analeptic (first the traveller sets fire on a cactus that *had fallen* on the ground and then can find his way) and is a locative referring to a state of affairs taking place along the path (i.e. a more or less bound area).

(28)

meelh	lhôn	ti	yamei	lhpa
meɬ	*ɬʋn*	*ti*	*j-am-e-i*	*ɬ-pa*
when	REPORT	SUB₁	3s-arrive-3-DIST	F-D
yafalh	ap'etsuc	pa	yilhônsham	
j-afaɬ	*apʔets-uk*	*pa*	*ji–ɬʋn-ʃam*	
3s-fall	cactus-CL.PLANT	and	3A(3P)-set.fire-THROUGH	
jaspa	yi'vanch'e	pa	nôyish	
xaspa	*ji-ʔvan-ʧʔe*	*pa*	*nʋjiʃ*	
in.order.to	3A(3P)-see-**ʧʔe**	D.M	path	

'When he came to a fallen cactus, he set it on fire in order to see his way'

(29) is similar to (28) insofar as it once again refers to a traveller who has strewn tiny stones on his path in order to be able to find his way back. The suffix is both analeptic and locative.

(29)

ja'vanch'e	jayu	java	utes
xa-ʔvan-tʃ^ʔe	*xaju*	*xa-va*	*ute-s*
1A(3P)-see-tʃ^ʔ**e**	PROSP	D-PL	stone-PL

'I will find those stones'

In (30) the suffix -*tʃ^ʔe* can be independently motivated as a locative applicative (*along the road*), as an itive ([following] Jesus walking away), as a metaphoric use of the locative applicative 'bounded area'> 'plurality of participants', or by a combination of two or all three of these.

(30)

meelh	ti	yichelhch'e		pa	Jesús
meɬ	*ti*	*j-itʃ-eɬ-tʃ^ʔe*		*pa*	*xesus*
when	SUB₁	3s-go-COORD.PL- tʃ^ʔ**e**		D.M	Jesus
japi	t'eyjatsjanjas		ja	cotsjaat	Galilea
xa-pi	*t^ʔ-eixats-xanxa-s*		*xa*	*kotsxat*	*galilea*
D-PL	3POS-teach-NMLZ-PL		D.M	land	Galilee

'When Jesus and his pupils were passing through Galilee …' (SBL, Matthew 17: 22)

Another interesting example is (31), where it would seem possible to understand that the analeptic marker in the biblical injunction refers to a past event (the death of the brother's spouse) taken to be the departing point of a potential new generation (you shall sleep with the deceased brother's wife in order to have children with her). Note that the first deictic classifier ɬ-xa implies that the brother's spouse has been seen before by the speaker although she is absent at speaking time. The second deictic classifier signals the brother as a deceased person. If the brother was not dead, the spouse would be referred to as *ɬ-xa ɬ-xa'ja* (F-D.SEEN BEFORE 3POS-spouse.without.children). Here the wife must literally be the survivor in the couple (spouse-over/upon-him) – unless adultery was intended.[23]

(31)

ôjqu'enelhch'e	lhja
Ø-ʋxk^ʔen-eɬ-tʃ^ʔe	*ɬ-xa*
2A(3P).IRR-copulate-COORD.PL-tʃ^ʔ**e**	F-D.SEEN.BEFORE
lhja'yalhtapee	ca	achecla'
ɬ-xaʔja-ɬ-t-apeˇ	*ka*	*a-tʃeklaʔ*
3POS-spouse-3-REC-OVER	D.M-DEAD	2POS-elder.brother

'Sleep with your brother's wife!' (SBP 1994, Genesis 38:8)

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[23] The mirror pattern, albeit derived from the verb -*tʋɬ* 'to come; to originate', can be seen in *pa-pi Ø-tʋɬ-ʔa-t-ʃam* (D-PL 3s-come-2-REC-THROUGH 'your ascendants', i.e. the lineage that came before your birth. It is my impression that the different locative applicatives – THROUGH vs. OVER – reflect the temporal orientation of the lineage, THROUGH following a line from the past to the present and OVER from the present to the future. A similar metaphorical extension of the Indo-European motion verb **skand* ~ **skend* 'to jump; to climb' has been attested for Latin and Romance (de-scendo vs. a-scendo – Stolova 215:44–45).

However, other examples with the same verb show that -*tʃʔe* is not necessarily analeptic and things are not so simple as they look. In what follows, I will shortly focus on their commonalities and differences. Needless to say, I do not claim that these observations about the use of one single verb can have any statistic value. However, the selection of the examples was random and my decision to compare their differences was made subsequently.

Incidentally, the comparison between (32) and (33) highlights the omnipresent male bias of most traditional translations of the Bible such as (32). In this respect, Nivacle turns out to be much fairer for the victim since it can be retranslated as 'Other men had sex with her' instead of implicitly rejecting the fault on the girl. My own English version of Hezekiel in (33) is a more or less literal rendering of Nivacle.

(32)

yôjqu'enelhch'esha'neen		papelh	nivacle
j-vxkʔen-eł-tʃʔe-ʃaʔne-ʔen		*pa-p-eł*	*nivakle*
3A(3P)-copulate-COORD.PL-tʃʔe-PL-INT		D-PL-DIF.PL	man/men
'She has prostituted herself with other men'		(SBP, Genesis 38:24)	

(33)

yôjqu'enelhch'esha'neen		lhjalhech	pa
j-vxkʔen-eł-tʃʔe-ʃaʔne-ʔen		*ł-xa-łetʃ*	*pa*
3A(3P)-copulate-COOR.PL- tʃʔe-PL-INT		F-D-ANAPH	and
yivômjatshic'oya	ja	lhutsjayash	
ji-vvm-xat-ʃi-kʔoja	*xa*	*łutsxa-jaʃ*	
3A(3P)-disappear-CAUS-INH-SEP	D.M	maid-NMLZ	
ti	yijôney	ti	
ti	*ji-xvn-e-i*	*ti*	
SUB₁	3A(3P)-imitate-3-DIST	SUB₁	
yitôtcôyôjatlhavach			
ji-tvt-kvjvx-(x) at-ła-vat-ʃ			
3A(3P)-REC-substitute-CAUS-3-REC-INST			

'They had sex with her, and after having taken her virginity, she went on serving as a surrogate' (Hezekiel 23:8)

(34)

ya aj	ca	ôjqu'enelhch'ec'oya	
jax	*ka*	*Ø-vxkʔen-eł-tʃʔe-kʔoja*	
PROH	SUB₂	2A(3P)-copulate.COORD.PL-tʃʔe-ANT.VENT	
lhpa	lhch'acfa	pa	avelh
ł-pa	*ł-tʃʔakfa*	*pa*	*a-veł*
F-D	3POS-spouse	D.M	2POS-neighbour

'Don't have sex with another man's wife!' (SBP, Leviticus 6:20 pm)

(35)

istaa	ca	shtôjqu'ench'e	
istaˀ	*ka*	*ʃt-vxkʔen-tʃʔe*	
LET	SUB₂	1INC-copulate-tʃʔe	

'Let's make love!' (SBP, Genesis 39:7)

Note first that all four examples above exhibit the marker -*tʃʔe* and that all but (35) have in addition the coordinated plural -*eł*. This is understandable since the first person inclusive is the only personal plural prefix in Nivacle. (34) is the only instance of the associated motion suffix -*kʔoja* 'anticipated ventive',[24] and (32) contains the only example of the plural -*ʃaʔne*,

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[24] The suffix marks (anticipated) movement of a potential sex partner towards the reference point.

which denotes a plurality of partners (hence the translation change 'have sex with–one partner–' > 'to prostitute oneself'). However, the most striking difference lies in the analeptic value of *-ʧˀe*, which can be ascertained in only one case, (31), where the death of the brother is given as a prerequisite for the mandatory sexual intercourse with his widow. In (19) and (32) the prevailing motivation for using -is more likely to be the metaphor locative> plural (i.e. the partners comparting a bound portion of space). By contrast, the activities depicted in (34) and (35) are projected into the future.

With verbs expressing mental or emotional states, the use of *-ʧˀe ~-kˀe* can be conceptualised in terms of what Lakoff & Johnson (1980) have called 'emergence metaphor', defined as originating from (a spatial extension of) causation: "Here the STATE (desperation, loneliness, etc.) is viewed as a container, and the act or event is viewed as an object that emerges from the container. The CAUSATION is viewed as the EMERGENCE of the EVENT from the STATE" (Lakoff & Johnson 1980: 75). As far as the spatial source of the metaphor is concerned, the Nivaĉle data support such an interpretation, where the locative applicative depicting a bounded area, especially the idea of a container with wide opening, translates into the emergence metaphor. However, there may be a further and less concrete source, which may lead to (and reinforce the emergence metaphor), namely a temporal reading of the relation between stimulus and reaction. We would thus have two convergent motivations for the use of the suffix *-ʧˀe ~-kˀe*: locative applicative (emergence metaphor) and associated motion itive ('going away'–replicating the link between stimulus/source > reaction/target> ANLP). Note the (obligatory) presence of the causative marker in (36), which would seem superfluous from the point of view of the English rendering. A literal translation of the second line would be 'then it was huge that/how it (i.e. what they had heard) surprised them'.

(36)

meelh	ti	yipe'yach'e	cavôque
mèɫ	*ti*	*ji-peʔja-ʧˀe*	*ka-vɒ-ke*
when	SUB₁	3A(3P)-hear-ʧˀe	D-PL-DEM
pa		uj	ti	nitôyijatch'e
pa		*Ø-ux*	*ti*	*ni-tɒji-xat-ʧˀe*
and/then		3s-be.big	SUB₁	3A(3P)-be.surprised-CAUS-ʧˀe

'When they heard this they were very surprised' (SBP, Matthew 19: 25)

Compare (36) with (37), where *-ʧˀe* is simultaneously valency-increasing (unsuffixed *-voʔ* is monovalent)[25] and itive (Jesus goes and his followers follow him).

(37)

yivaatsheelh	javômjelh'ac'oya	java	matas
ji-vaʧe-eɫ	*xa-vɒm-x-eɫ-ʔa-kˀoja*	*xa-va*	*ma:tas*
1-PRON-COORD.PL	1A(3P)-leave-INST-COORD.PL-2-SEP	D-PL	things
jaspa	javoelh'ach'esha'ne		
xaspa	*xa-vo-eɫ-ʔa-ʧˀe-ʃaʔne*		
in.order.to	1s-follow-COORD.PL-IT-INT		

'We left everything for your sake and followed you' (SBP, Mathew 19: 27)

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[25] When used as an intransitive verb and without any suffix *-voʔ* can only mean 'to (carry out the traditional activity of) fish (ing)'. In all other cases it must be followed by the locative applicative distal ('to go somewhere to fish' or 'to go and look for something or someone), the itive ('to follow someone') or the applicative *-ʃaʔne* ~*-xaʔne* as 'intensive' rather than its canonical meaning 'down/activity on the ground').

Examples (38), (39), (40) ja (41) further illustrate the use of -*ʧ⁹e* with the typical cognition verb -*ʧaʔvai* 'to feel; to sense', denoting a reaction to a past stimulus.

(38)
ninancha'vaich'e
ni-nan-chaʔvai-ʧ⁹e
NEG-3S.IRR-perceive/feel-ANLP
'S/he has/had not heard/felt it (what was done)'

(39)
tsicha'vaich'e   ti   nischaatshi
tsi-chaʔvai-ʧ⁹e   *ti*   *n-isʧat-ʃi*
1s-perceive/feel-ʧ⁹e   SUB₁   3s-smell.meat-INH
'I smell meat (I perceive that it smells of meat)'

(40)
tsicha'vaieshyitch'e   ti   taiyitshi
tsi-chaʔvai-e-ʃ-ji-t-ʧ⁹e *ti*   *t-ai-ji-t-ʃi*
1s-feel-3-INST-1-REF-ʧ⁹e   SUB₁   3s-escape-1-REF-INH
pa   yunaj
pa   *j-un-ax*
D.M   1POS-be.strong-NMLZ
'I feel like my strength had gone'

(41)
nicha'vaieshlhatch'e   ti   vatsjanesh
ni-chaʔvai-e -ʃ-ła-t-ʧ⁹e   *ti*   *Ø-vatsxan-e-ʃ*
3s-feel-3-INST-3-REF-ʧ⁹e   SUB₁   3s-be.cured-3-INST
pa   lhayasha
pa   *ła-jaʃa*
D.M   3POS-disease
'S/he feels s/he is cured of his/her disease'

The main focus of section 4 has been to draw attention to the versatile uses of the suffix -*ʧ⁹e* ~ -*kʔe* in Nivaĉle. Looking in retrospect at the semantic map, the least understood aspects, which would deserve more attention in future investigations are the distributive/plural and classifier-like as well as the use of the suffix with cognition verbs.

5. Nivaĉle -*ʧ⁹e* ~ -*kʔe* and the multifunctionaly of its cognates in the other mataguayo languages[26]

5.1. Maká -*kii* and -*kʔi*

It seems very likely that the Maká verbal suffixes -*kii* and -*kʔi* correspond to Nivaĉle -*ʧ⁹e* and -*kʔe*. However, in the latter language they are phonological variants of the same morpheme (-*kʔe* appears after/x/or one of the back rounded vowels /u, o, ɒ/, -elsewhere), whereas in Maká they are distinct morphemes with partially overlapping functions, which may equally

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result from a split or a merger.[27] According to Gerzenstein (1995: 119), the verbal clitic -*kii* can be used to indicate incompatibility with an object noun or as an iterative. She gives two examples for the first case and only one for the iterative. Gerzenstein's purported incompatibility with an object noun seem to suggest an antipassive, but further examples from the same author's dictionary (1999) and the New Testament (WBT) show that this is not always the case. Gerzenstein notes that -*iḵfelixkii* means 'to know something extensive'.[28] This (along with other Maká examples) strongly reminds of the use of Nivaĉle -*ʧ²e ~-k²e* as a marker for a bound area, although its Maká (and Chorote) cognate is -*k²i*.

(42) Maká (Gerzenstein 1999: 195 – segmentation AF)
ts-ikfel-i-x-kii   *n-a'*   *wi (t)-tset*   ~   *n-a'*   *łene*
1s-know-3-INST-**kii**   D-M   IND.POS-village   D-M   bush
'I know the village ~ the bush'

(43) Maká (Gerzenstein 1999: 117 – segmentation AF)
h-ak'esaX-kii   *n-e'*   *ł-ɓ-i*
1s-scatter-**kii**   D-PL   3POS-seed-PL
'I scatter its seeds'

Gerzenstein's minimal pair (45a) vs (45b) clearly shows that -*kii* also functions as a plural/distributive. Note the conceptual closeness of -*kii* from 'iterative' (?) in (43) above to 'plural/distributive' in (44), (45a) and (45b), which may be understood as the result of 'pluractional effect'.

(44) Maká (WBT, Luke 10:14 pm)[29]
p-a'   *Jesús*   *qa*   *h-e'*   *apóstoles*   *iye*
D-M   Jesus   and   D-PL   apostles   also
i'-n-i-jup-ju'-kii   *p-a'*   *mesa*
3s-be.located-3-SIDE-DOWN-PL/DISTR   D-M   table
'Jesus and the apostles were sitting together at a table'

(45a) Maká (Gerzenstein 1995: 138 – segmentation AF)
i-n-xu'   *n-a'*   *xukhew*
3s-be.located-DOWN   D-M   man
'The man is sitting'

(45b) Maká (Gerzenstein 1995: 138 – segmentation AF)
i-n-xu-kii   *n-e'*   *hukhew*
3s-be.located-DOWN-PL/DISTR   D-PL   man
'The men are sitting'

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[27] Too little is known about the diachrony of the Mataguayo languages in order to tell whether one should posit one or two original markers. What is known about the evolution of the Mataguayo languages is that even if one could hypothesise a proto-language, constant contacts between the speakers of the daughter languages make it very difficult (or impossible) to reconstruct the original situation. The absence a glottalisation feature in the onset consonant of -*kii* is also reflected in 'Weenhayek -*kye(ʔ) ~-ke(ʔ)* and Wichí -*ʧe*.

[28] There are two Nivaĉle cognates: -*tɐfak(l)* 'to know; to recognise' and -*ʧafak(l)* 'to recognise someone's voice'. Each one belongs to the same distinctive conjugation class in both anguages. The differences in the first syllable of the root (*tɐ-* vs. *ʧa-*) cannot be accounted synchronically or diaronically.

[29] Interestingly, the Nivaĉle version does not use the distributive the verb (*j-iʔ-ʃaʔne-xop* =3S-be.located-DOWN-SIDE) although in other similar contexts it is quite frequent (*j-iʔ-tax-ʧ²e-ʃaʔne* = 3S-be.located-CON-DISTR-DOWN 'They sat together for a while').

As for the marker *-k²i*, Gerzenstein (1995: 125) defines it as a postposition[30] indicating spatial or temporal extension. Her examples tally with *-ʧ²e ~ -k²e* in Nivaĉle in their uses as 'bounded area' (40), 'moving away'(51), as well as 'analeptic' (47), (48) and (50).

(46) Maká (Gerzenstein 1995: 125)
n-a'	*łeqisil*	*te-wey-i-k²i*	*n-a'*	*wi (t)-tset*
D-M	leader	3s-defend-3-k²i	D-M	IND.POS-village

'The leader defends the village'

(47) Maká (Gerzenstein 1995: 125)
ts-ikfel-i-k'i	*k-a'*	*y-iwket-i-k'i*
1s-know-3-ANLP?	D-M	1POS-grand.father-3-PRED[31]

'I remember (the one who was) my late grandfather'

(48) Maká (WBT, Luke 4:24 pm)
y-a's	*m-en-ikfel-it-i-k'i*		*a-kha'*	*qi*	*in*
1POS-son	Q-2A(3P).IRR-know-CAUS-3-ANLP	2-PRON	3s.be.big	SUB

e'-łe'wis-ju'	*in*	*mexe*	*iła'x*
2s-be.happy-INT	SUB	when	2POS.life

'Son, do you remember the good things you had in your life?'

(49) Maká (WBT, Revelation 3:3)
m-en-ikfel-it-i-k'i	*k-ekhe-we'*	*ł-'esti'y-i-j*
Q-2A(3P).IRR-know-CAUS-3-ANLP	DIST-PRON-PL	2A-win-3-INST

qa	*łe-pi'ye'e-k'i*	*iye*
and	2A(3P)-listen-ANLP	also

'Will you remember those things you have received and heard?'

Interestingly *-kii* sometimes appears (especially with verbs of perception) in 'analeptic' contexts too instead of the expected *-k²i* (50)

(50) Maká (Gerzenstein 1999)
-ika-met-kii 'to feel sad (for something past)'[32], *-ixuye-kii* 'to laugh', *-xamti-kii* 'to think about someone'.[33]

(51) Maká (WBT, John 1:36)
qa	*in*	*yi-'wen-i-k'i*	*pakha'*	*Ø-nek-i'*	*pa'aj*	*h-a Jesús*
and	SUB	3A-see-3P-IT	3PRON	3s-pass -LOC	REM.PST	D-M Jesus

'And he saw Jesus walking past/away'

That fact that Maká has two different forms *-k'i* and *-kii*, instead of only only one in the other Mataguayo languages, Nivaĉle *-ʧ²e ~ k²e* (in complementary distribution), 'Weenhayek *-kye(')* ~ *-ke(')*, Wichi *-ʧe* (perhaps also *-kwe*), and Chorote *-k'i* makes needs further investigation. In other respects, the multifunctionality of the marker follows the same general pattern.

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[30] Gerzenstein considers as postpositions verbal morphemes which require a preceding personal suffix. Those which do not are called (verbal) clitics. However, she notes that *-kii* may be used with or without a personal suffix.

[31] Although the ending *-i-k'i* on the noun is homophonous with *-i-k'i* on the verb, the former is particularly frequent in the New Testament, where it marks a noun as predicative, possibly for highlighting purposes.

[32] The suffix *-met* (~ Nivaĉle *-mat*) means 'suffering from a dysfunction'. The opposite meaning is expressed by adding the suffix *-tsax* (*-met-sax*) ~ Nivaĉle *-mat-sex* 'possessing a positive quality'. The basic meaning of *-ika* is not registered in Gerzenstein's dictionary and I have not been able to find its cognate in Nivaĉle.

[33] Cf. Nivaĉle *-xumte* 'be calm; to be nostalgic about'.

5.2. Wichí and 'Weenhayek

Wichí is the most widely spoken Mataguayo language. The wide area in which it is spoken extends from the Northwest ('Weenhayek variety) to the Southeast, roughly following the axis of the Pilcomayo and Bermejo rivers. Far from being a unified language, it forms a dialect chain within which only speakers of neighbouring varieties can relatively easily converse with each other. For that reason, I have picked up for comparison the two most divergent varieties, 'Weenhayek (Northeast, mostly on the Bolivian side of the Argentine border, Alvarsson & Claesson 2014 and Claesson 2008, 2017) and a group of Southwest varieties spoken in the Argentinian provinces of Formosa and Chaco as studied in Nercesian 2014).

Claesson (2017) provides the following list of the functions of the verbal suffix *-kye*(') *∼ -ke*('). They strikingly resemble those of Nivaĉle *-tʃˀe ∼ -kˀe*: (a) contexts involving long and/or oblong-shaped objects (52), (b) objects with narrow openings (53), (c) movement away (54), and (d) distributive (right variant of 55).

(52) 'Weenhayek (Claesson 2017: 47)
'o-lée-kye   *'nààyih*
1s-leave-BOUND   path
'I am leaving the road'

(53) 'Weenhayek (Claesson 2017: 50)
Ø-tàlh-kye   *lh-aayhi'*
3s-come-BOUND   3POS-mouth
'It comes out of his/her mouth'

In the context of (54), Claesson takes *-kye'* as a comitative, and wonders whether we are dealing with the same marker that indicates 'going away' elsewhere. It seems to me very likely that it does. In fact *-kye'* is used like the Nivaĉle associated motion itive, which marks a non-subject participant going away from the reference point. The translation with a comitative is correct, but the utterance can be paraphrased as 'I go [following you] where you go'. This is corroborated by the fact that the canonical comitative marker in 'Weenhayek is identical with the instrumental (*-ej ∼ -yej*).

(54) 'Weenhayek (Claesson 2017: 48)
'o-yik-'áám-kye'
1s-go-2-IT
'I am going with you'

(55) 'Weenhayek (Claesson 2017: 52)
hi-p'oo'-pe'   ∼   *hi-p'oo-ke'-pe'*
3A-cover-OVER   3A-cover-DISTR-OVER
'I cover him/her/it'   'I cover (each one of) them'

Interestingly, Claesson also mentions a special use of the itive, which closely follows the analeptic pattern of Nivaĉle in (56) and (57), drawing the attention to a past event being the cause of the reported situation: husband's death > sadness in (56) and uttering of a word > resulting pleasure in (57).

(56) 'Weenhayek (Claesson 2017: 48)

la-lhaaq'álh-kye	*ha-ky'eejwa*	*tà*	*'y-ilh*
2s-be.sad-ANLP	2POS-spouse	SUB	3s-die

'You are sad because of your dead husband'

(57) 'Weenhayek (Claesson 2017: 51)

wuujw	*tà*	*'y-aqààn-kye*	*'no-lhààmet-tsoh*
3s.be.big	SUB	3s-like-ANLP	IND.POS-word-DEM.DISTANT

'S/he liked that word very much.'

Regarding the Southeastern varieties of Wichí, Nercesian (2014) notes three functions for the verbal suffix *– che (/-tʃe/)*, distributive plural (58), 'in extension' and 'in movement (away)'. Although the author does not state what she precisely means by 'in extension', it appears to cover much of what Gerzenstein (1995) also called 'in extension' in Maká, and which I take to (more or less) include reference to 'long/oblong objects' (59), 'bounded areas' and 'objects with widish openings' (62–63). This is borne out by some of Nercessian's examples:

(58) Wichí (Nercesian 2014: 233)

n'-felh-hu-che	*atsinha-y*
1s-tell-BEN-DIST	woman-PL

'I am telling to the women'

(59) Wichí (Nercesian 2014: 258)

n'-nek-che	*noy'ij*
1s-walk-BOUND	path

'I walk on/along the path'

Movement away is clearly marked by an associated movement suffix (60).[34] However, in the same context, the suffix *-kwe* 'allative'/'over there' may also be used (61). However, Nercesian does not elaborate further on the subject. Interestingly, Terraza (2009: 155) states that in Wichí varieties spoken to the South of the 'Weenhayek area, the suffix *-kwe*, of low frequency, can appear instead of *-kʸe* (*~ -tʃe* in other varieties) in the same position, and glosses it as 'collective'. Example (61) shows that this is not the case in the varieties described in Nercesian's work.

(60) Wichí (Nercesian 2014: 258)

n'-t'on-'am-che
1s-shout-2-IT

'I am shouting to you (as you are going away)'

(61) Wichí (Nercesian 2014: 281)

hin'u	*hi-w'en-n'u-kwe*
man	3A-see-1P-IT

'The/A man sees me (going away)'

(62) Wichí (Nercesian 2014: 252)

n'-fwu-yen-che	*lape'*
1A-be.open-CAUS-BOUND	door

'I open the door'

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[34] Its opposite, the ventive *-lo'* (~ Nivaĉle and Maká *-xul*), is described by Nercesian as 'over here'.

(63) Wichí (Nercesian 2014: 288)
ta-fwu-hi-che-la=p'iya   *lape'*
3s-be.open-FUT₁-BOUND-FUT₂=DUB   door
'The door will possibly open'

5.3. Chorote

Within the Mataguayo language family Chorote exhibits the most complex morphophonological processes. Overlapping allomorphs of different morphemes and a rather high degree of fusion often make segmentation problematic. Another interesting particularity of Chorote – also attested in Wichí – is that applicatives can in certain contexts be suffixed to nouns or even be used as adpositions. The marker I will focus on is *-kʔi*. Carol (2014: 279) states that it can be used as a trajector 'along' as in (64). Although (65) is given by the author under the same heading, it may better be described as and 'object with widish opening'.[35]

(64) Chorote (Carol 2014: 279)
a-wa-k   *ji-kyus-k'i*   *ni*   *tewuk*
1s-be.located-1s.PL   3POS-bank-BOUND   D.M   river
'We live on the bank of the river'

(65) Chorote (Carol 2014: 279)
tajl-e   *ji-kiwit-k'i*
3s.come-DIST   3POS-mouth-BOUND
'It comes from his/her mouth'

According to Carol, the suffix *-kʔi* is also used to indicate 'movement along a trajectory' (66). This may be construed as an itive on two counts. First, it is the object (the ball), which is given the impulse. Second, the receiver is also presented as moving away (as overtly implied by the determinant *kya* 'singular/masculine/moving away or passing by').[36]

(66) Chorote (Carol 2014: 279)
i-tyjet-ij-k'i   *kya*   *Alberto*
3s-shoot-INST-IT   D.M.IT   Alberto
'He made a shot at Alberto'

Carol (2014: 281) states that *-kʔi* can also function as a comitative as in (67) and (68) and with certain verbs as a distributive (70). As (69) clearly shows *-kʔi* can also be employed as an associated movement suffix (itive).

(67) Chorote (Carol 2014: 281)
i-jyo-k'i-ji'n
3s-go-WITH-DOWN
'He sleeps with her' (cf. *i-jyo-jwen* 'he lays down to sleep')

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[35] I wish to thank Javier Carol for having checked and corrected some mistakes in my analysis. I am alone responsible for any error that may remain.

[36] Interestingly, and contrary to what happens in other Mataguayo languages, the opposite of *-kʔi* is not a suffix in Chorote but an adposition (*ilyá'm* 'coming', cf. 'Weenhayek *-hilà'* ~ *-hlà'* ~ *-là'*). As in the other Mataguayo languages, the itive can also indicate that a participant is passing by.

(68) Chorote (Carol 2014: 281)

ja   nam   i-jyi-k'i
PROSP   2.IRR.come   1SG.POS-PRON-WITH
'Are you coming with me?'

(69) Chorote (Carol 2014: 280)

i-'yen-'ni   i-jyi-k'i
3s-look-ITER   1SG.POS-PRON-IT
'They looked at me passing by'

(70) Chorote (Carol 2014: 140)

ja-lyejnam-k'i   *ja-lyen-k'i*
PROSP-1A.IRR.separate.LOC/DAT-DISTR   PROSP-1A.IRR-separate-DISTR

ni-wa   jl-é'e-l
D-PL   3POS-thorn/fishbone-PL
'I will take pick up (the fish), I will bone them one by one'[37]

I will conclude this comparative section by citing five translations of an extract from Mark 6:33 in Nivaĉle (71), Maká (72), Chorote (73), 'Weenhayek (74) and Wichí (75), in which two verbs have been highlighted for closer comparison. It will be seen that in each case, the verb 'to see' is marked as 'itive'. However, the basic verb 'to know'' (= KNOW+KNOW+INSTR=OBJ) is used in Maká and Wichí (but not the 'Weenhayek variety) alike, whereas the other languages display the analeptic suffix, entailing the change of meaning (at least in the [re]translation) from 'to know' to 'to recognise'(I know you because I have seen you before). Note that the verb *-tɒfak* (Nivaĉle) ~*-ikfel* (Maká) ~*-täfwel* (Wichí) ~*-tààjwélh* ('Weenhayek) 'to know' is intransitive. This means that the introduction of an object requires a valency increasing suffix, here as in many other cases the instrumental applicative. In Nivaĉle and Maká, the applicative must be immediately preceded by a person suffix. Both languages can replace the instrumental by the analeptic marker in case the intended meaning is 'to remember'(77). However, selecting the instrumental does not preclude analeptic reading (76). Thus, the use of the instrumental instead of the analeptic in the Maká example (72) would appear to be the translator's choice rather than a language-internal rule imposed on the native speaker.[38]

(71) Nivaĉle (SBP 1994)

taj	ti	yi'vanch'e	japi	nivacle	pa	nitôfacch'e
tax	*ti*	*ji-ʔvan-ʧ²e*	*xa-pi*	*nivakle'*	*pa*	*ni-tɒfak-ʧ²e*
but	SUB₂	3A(3P)-see-IT	D-PL	man/men	and	3A-know-ANLP

'But many people saw them leave … and recognised him (Jesus)/them'

(72) Maká (WBT 2013)

qa	olo-ts-łe	h-e'	yi-'wen-i-k'i	pa	n-ikfe'l-i-j
and	be.many-PL-REC.PL	D-PL	3A-see-3-IT	pa	and 3A-know-3-INST

'But many [people] they saw them leave … and recognised him (Jesus)'

(73) Chorote (SBA 1997)

jlam-n'e	'loj	pa-po	i-'win-k'i	'yina	ti
3POS-but	3s.be.many	D-PL	3A(3P)-see-IT?	CONT	that

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[37] There same verb appears twice in this example. In the first, the root is fused with the applicative suffix *-jam* 'flat bottom' (Javier Carol, p.c.).

[38] Maká has a third (and preferred) option, namely the use of the object suffix *-ets*. The translation lines have been slightly (and clumsily) altered in each language in order to reflect more closely the translators' choices.

i-tiant'ieje-s-k'i
3A-know – ? -ANLP?
'But many [people] they saw them leave … and recognised him (Jesus)'

(74) 'Weenhayek (Claesson, ed. 2016)

tha	*hàp*	*tà*	*wujwpe*	*wikyi*	*tà*	*hi-'ween-kye'*
but	CONT	that	3s.be.big	person(s)	that	3A-see-IT

wet	*ni-tààjwélh-kye'*
and	3A-know-ANLP?

'But many they were many that saw them leave … and recognised him (Jesus)'

(75) Wichí (SBA 2000)

mat	*wujpe*	*wichi*	*hi-w'en-che*	*wet*	*ni-täfwel-ej*
but	3s.be.big	person(s)	3A-see-IT	and	3A-know-INST

'But they were many persons they saw them leave … and recognised him (Jesus)'

(76) Nivaĉle
tsitôfacleshelh'a
tsi-tʋfakl-e-ʃ-eł-ʔa
1A-know-3-INST-COORD.PL-2P
'We (excl) know/recognise you'

(77) (= 47) Maká (Gerzenstein 1999: 195)

ts-ikfel-i-k'i	*k-a'*	*y-iwketik'i*
3s-know-3-ANLP	D-M	1POS-grandfather

'I remember my (late) grandfather'

6. Concluding remarks

The purpose of this study was to disentangle the bundle of various uses of the Nivaĉle verbal suffix *-ʧ²e ~ -k²e*. The analysis of the data point to the fact that rather than representing different morphemes (the homophony hypothesis), all can be explained by positing one single multifunctional marker. As a result, a semantic map could be drawn (cf. Table 1). The most convenient point of departure was found to be the most frequent function of *-ʧ²e ~ -k²e*, i.e. a locative applicative indicating a bounded area. Important subregions of this particular semantic grouping refer to containers with wide openings and long objects. The 'bounded area' reading can serve to locate activities or states of affairs involving a plurality of participants (distributive plural and/or pluractionality). In turn, 'long object' may allow states of affairs describing movement along a trajectory (following a path, climbing up a tree) and, from there, simply indicate movement of a (usually) non-subject participant away from a reference point. The analeptic function as well of the 'stimulus> reaction' phenomena present in many cognition verbs can then be explained in terms of the transition from a concrete, physical motion to an abstract, temporal gesture towards the past. The comparison with the other members of the Mataguayo languages shows that this overall pattern pervades the whole family and must be the result of a common evolution.

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