APPLICATIVES AND ASSOCIATED MOTION SUFFIXES IN THE EXPRESSION OF SPATIAL RELATIONS: A VIEW FROM NIVACLE (MATAGUAYO FAMILY, PARAGUAYAN CHACO)

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ABSTRACT

This paper presents an overview of the expression of spatial relations in Nivacle, a Mataguayo language of the Paraguayan Chaco. As this language lacks both adpositions and nominal cases, the locative applicatives represent the only way to mark spatial relations between verbs and DPs. Previous literature has regarded applicative constructions as alternatives to adpositions and/or nominal cases, but this is not the case in Nivacle, where they are the only option. There are eighteen locative applicatives, which can also combine with relational nouns to yield more variation in the expression of spatial relations. Another peculiarity of Nivacle is the use of locative applicatives not only for the expression of motion events and locations but also for properties (e.g. the water is cold) that prima facie do not seem suggest a locative relation at all. A further typologically uncommon feature of Nivacle described is the use of associated motion suffixes to express the motion of an additional – non-subject – participant.

[KEYWORDS: Spatial relations, locative applicatives, relational nouns, associated motion suffixes, Nivacle]

CONTENTS

1. Introduction
2. Background information on Nivacle
3. Basic facts about Nivacle verbs
4. The expression of motion and location in Nivacle
    4.1. Location words
    4.2. Applicatives
5. Directionality in Nivacle verbs
    5.1. Cislocative
    5. 2. Associated motion suffixes
6. Applicatives and associated motion suffixes: shared properties and differences
7. Packaging of Figure, Path, Manner, Motion/Location and Ground in Nivacle
8. Further strategies for the expression of motion events in Nivacle
    8.1. Multi-verb constructions
    8.2. Applicatives in multi-verb constructions
    8.3. Applicatives and relational nouns
9. Conclusion

1. In the course of the last four decades, the linguistic study of spatial relations has expanded dramatically, and various typologies have been developed to describe the phenomena. In the description of motion events. Talmy's writings have had a major impact, and his terminology is now widely used. Even if different investigators have rightly drawn attention to various shortcomings in Talmy's typology (2000), it must be recognised that it constitutes a good starting-point for the study of spatial relations.

The aim of this paper is to describe the role of the locative applicative and associated motion suffixes in Nivacle, a language of the Mataguayo family, as spoken in the central Paraguayan Chaco. Section **2** provides background information on Nivacle, after which section **3** moves on to present some basic facts about Nivacle verbs, insofar as they contribute to a better understanding of what follows. Sections **4** and **5** present relevant information on how motion and location events are expressed in Nivacle. It discusses the three possibilities available to the Nivacle speaker to express directionality, i.e. inherent root directionality, the cislocative prefix, and the three associated motion suffixes that point to the motion of a non-subject participant towards or away from the deictic centre. It also provides a list of applicative suffixes as well as an overview of their contribution to the architecture of Nivacle sentences. Section **6** compares applicatives and associated motion suffixes**.** Section **7** explores various strategies used in the packaging of Figure, Path, Manner, Motion/Location and Ground, and section **8** further strategies available to the Nivacle speakers for the expression of motion events.

2. Background information on Nivacle. The Gran Chaco, a huge but very sparsely populated territory of more than 1.200.000 km in the heart of South America, spans rather peripheral areas of four different countries: Argentina, Paraguay, Bolivia, as well as a small corner of South-western Brazil. The Chaco is home to speakers of languages belonging to five different linguistic families, all of which can be considered as under-studied. According to the 2002 census, there are about 12.000 Nivacle in Paraguay, and about 99% of them, including small children, speak their language at home (Melià 2004). Outside Paraguay, an unknown number of Nivacle also live in the Argentinean provinces of Salta and Formosa, where the vitality of the language is weaker. Seelwische published a bilingual grammar designed for native schools (1975) as well a Nivacle-Spanish and Spanish-Nivacle dictionary (1990). Stell's doctoral dissertation (1987) contains a structural description of Nivacle. In view of the cross-linguistically uncommon features presented here, I hope the data presented in this paper will be of interest to typologists. My data have been gathered from native speakers of Nivacle in the course of three field trips to the central Paraguayan Chaco between 2007 and 2011.

3. Basic facts about Nivacle verbs. Nivacle is a strict head-marking language, without nominal cases or adpositions. All spatial and instrumental information that other languages convey through nominal cases and/or adpositions correspond to a class of Nivacle verb suffixes, which I will call applicatives (for a discussion of the term, see section **4.2.**). There are neither infinitive forms nor converbs. The left side of the base may also host two optional morphemes: indefinite subject *chi-*, and cisclocative *n(i)-/t(a)-* (movement towards deictic centre). The indefinite subject does not cancel the person prefix. The prefix slot shows the basic valency of the verb root, whic is obligatorily saturated. Among the different slots that can appear after the base, I will mention only those relevant for this paper, i.e. the applicatives and the associated motion suffixes (henceforth AM). Although three applicatives and two AM suffixes may attach to the same verb-base, I have no example of more than two locative applicatives in this position. Here is a partial template (for ease of

presentation, only the relevant slots appear). The obligatory morphemes are highlighted.

TABLE 1
PARTIAL TEMPLATE FOR A NIVACLE VERB

INDEF. S/A	**PERSON**	CISLOC	**BASE**	..	$APPL_A$	$APPL_B$	AM_A	AM_B	INT

For a monovalent verb, there is only one personal prefix (S). Nivacle verbs do not show tense. The main strategy used for anchoring an event within a time frame is by way of deictic classifiers preceeding (with very few exceptions) all NPs. These, among other things, give indirect clues about the time frame. Additionally, a largish array of temporal particles may, but need not, be used. Basic valency can be increased, provided the added arguments are coindexed in one of the post-base slots.
The root's basic valency is always retained. As mentioned before, the subject morpheme S/A remains *in situ* after the indefinite subject morpheme[1]:

(1)
y-en
3A(>3P)-love
'S/he loves/loved it/him/her/them'

(2)
chi-y-en
INDEF-3A(>3P)-love
'Someody loves/loved it/him/her/them'

The maximal basic valency is two. If the root is transitive, the non-subject argument is P, T, or R. Ambitransitivity is disallowed and ditransitivity is always derivative as there cannot be more than on non-subject argument in the prefix. Owing to the application of the hierarchical alignment rule 1/1IN>2>3, only one of the two prefixes actually shows up with bivalent verbs. This overt argument corresponds to the highest on the hierarchy, A or O, with O conflating the semantic roles of P/T and R. Nivacle exhibits three different alignment constructions, depending on the verb: (a) nominative/accusative, (b) active/inactive, and (c) direct/inverse (hierarchical).

[1] Abbreviations are: A = agent of bivalent verb; AM = associated motion suffix; AM.IT = itive; AM.VENT = ventive; AM.ANT.VENT = anticipated ventive; ANTIPAS = antipassive; APPL = locative applicative (with subscripts: ben = benefactive; closed.cont = closed container; dist = distal; ext.ground = extensive/extended ground; instr = instrumental; prox = proximal; unsp.ground = unspecified ground; wide.cont = wide container); CAUS = causative; CISCLOC = cislocative; CL = classifier; COLL = collective; D = deictic classifier (subscript numbers differenciate featurs involved); DEM = demonstrative (same categories and subscript numbers as with deictic classifiers); DER.SUF = derivation suffix; F = feminine; FRUST = frustrative; INDEF = indefinite S/A; INDEF.POS = indefinite possessor; IND.POS = indirect possession; INT = intensive; IRR = irrealis (realis not indicated in glosses); M = masculine; N = noun root; NMNLZ = nominalizer; O = object (cover term for P, T, and R); P = patient of bivalent verb; PL = plural ; POS = possessive ; PROSP = prospective ; R = recipient of bivalent verb (in prefix); RelN = relational noun; RL = realis; S = subject of monovalent verb (in prefix); S_p = subject of monovalent verb marked like P of bivalent verb; SUB_1 = subordinator for realis; SUB_2 = subordinator of irrealis; T = theme (prefixed patient of bivalent verb); 1IN = first person plural inclusive; (>3P) = (after prefixed argument marking) argument left unexpressed due to the application of the rule of hierarchical alignment requiring the presence of the higher argument on the scale 1/4>2>3. The practical orthography used for Nivacle is based on Spanish, with the following exceptions: <VV> = /V^{ʔ}/ (laryngealized vowel); <ô> = /ɑ/ or /ɑ^{w} /; <C'> = /C^{ʔ}/ (ejective consonant), otherwise /ʔ/; <lh> = /ɬ/; <sh> = /ʃ/. Accent is non-phonemic, and falls on the last syllable of the word.

Active/inactive appears to be lexicalized rather than depending on the semantics/pragmatics of the verb. Neither the election of direct or inverse does depend on notions such as verbal aspect, control, or affectation. Valency increasing morphemes, appear in the post-base slot. For more details on this topic, see Fabre (in press).

4. The expression of motion and location events in Nivacle. In order to express a motion or location event, speakers avail themselves of a wide array of options available from the lexicon, morphology, syntax and pragmatic context. The speaker can chose between various combinations drawn from the pool of Motion and Stasis verbs and nouns, applicatives, deictic prefixes, relational nouns, and associated motion suffixes. Table 2 summarizes the lexical and morphological possibilities in monoclausal context.[2]

TABLE 2
DISTRIBUTION OF THE SEMANTIC FEATURES
MOTION AND STASIS IN NIVACLE

	V	N	RELN	APPL	CISLOC	AM
Motion	+	+	comp	comp	+	+
Stasis	+	+	comp	comp	-	-

4.1. Location words. Two categories of free roots in Nivacle are specialised in the expression of spatial relations, nouns and verbs. Locative nouns refer to areas characterised by distinctive geographical features and place names, meronyms (parts of a whole), whereas locative verbs express static (topological) or dynamic spatial relations. For reasons of space, I will concentrate exclusively on translational self-motion, and exclude verbs of causative translational motion. It is crucial to note that any noun referring to a physical entity may be used as a Ground for anchoring a Figure. Lyons (1977: 693) observed that in *I'll meet you at the car*', " 'the car' is used indirectly to identify a place: i.e. the space that is occupied by the car". This is exactly what Nivacle speakers do with applicatives, which is not surprising when the applicative is coindexed with a noun identifiable as a Ground, but more so in the absence of any noun. When this happens, a Ground is recoverable from the pragmatic context, although it may be rather vague.

4.2. Applicatives. According to Launey (1997), the term 'applicative' was coined by Antonio del Rincón in his *Arte Mexicana* (1595). The role of the applicative was conceived as adding a 'new dative' (new benefactive argument) like in the following Nahuatl examples:

(3a)		(3b)
ni-c-chīhua	➔	*ni-mitz-c-chīhua-lia*
1A-3P-make		1A-2P(=BEN)-3P-make-APL
'I make it'		'I make it for you'

(Launey 1997)

[2] Comp = compositional. Applicatives and relational nouns neutralize the opposition Motion (*to* and *from*) and Stasis (*at/in*), the correct reading being inferred either from the combination with lexical root and/or context.

It is unclear how the term made its way into the descriptions of African (mainly Bantu) and Austronesian languages. As will be seen in the course of this section, 'applicative' will not be used in its original meaning. The list of Nivacle applicatives is given in Table 3. Nivacle applicatives, as well as the AM suffixes, have a host of metaphorical extensions and are also widely used as derivation devices. Because the role of Nivacle applicatives differ significantly from the descriptions of prototypical applicatives found in the literature, one might alternatively ask whether we could not analyse them as verbal classifiers. Aikhenvald (2000: 149) remarks that "Verbal classifiers appear on the verb, categorizing the referent of its arguments in term of its shape, consistency, size, structure, position, and animacy". Aikhenvald adds that verbal classifiers always refer to a predicate argument, S or O. In none of the languages surveyed by Aikhenvald do we find significant similarities between verbal classifiers and Nivacle locative applicatives. For a recent cross-linguistic survey of applicatives, see Anderson (2007). According to Hagège (2010: 67), applicatives are morphemes that do some of the syntactic and/or semantic jobs of adpositions, but should be distinguished from the latter. For this reason, Hagège strongly rejects Baker's view of applicatives as incorporated prepositions (Baker 1988: 229). For understandable reasons, Baker shares the dominant opinion that incorporated prepositions alternate with adpositions: "At least one language is described as having productive and regular locative applicative constructions, however, namely Kinyarwanda as described by Kimenyi (1980)" (Baker 1988: 238). As far as I am aware, only two authors have discussed 'untypical' use of applicatives similar to those of Nivacle. Commenting on her Tuscarora data, Mithun (2002) states that: "The [Iroquoian] languages contain robust dative/benefactive, instrumental, and directional applicative constructions, but no prepositions, postpositions, or other case markers. There are no oblique dative, benefactive, instrumental, or directional nominals at all, so no constructions for which the applicatives might provide syntactic alternatives". Finally, Dixon (2012: 294-342) devotes a whole chapter to applicatives, discussing two different types, (proper) applicatives, and quasi-applicatives. Nivacle applicatives would all fall into the last category. In what follows, the term 'applicative' will be used in the sense of Dixon's 'quasi-applicative', although from a cross-linguistic point of view, the latter term would be more appropriate. For reasons of space, I will focus on the use of applicatives in the expression of local relations.[3] One of the most striking functional differences between Nivacle (quasi-)applicatives and (proper) applicatives is that it cannot be said that their function is to demote oblique arguments or participants to objects, simply because there are no oblique DP/NPs in this language. All DP/NPs are equal in this respect, since in the absence of nominal case and/or adpositions, both locative and instrumental marking appear on the verb. The presence of any noun or pronoun in a sentence must be licenced by the verb, and adding valency is just as necessary for an O (P/T/R) as for any adjunct.

The following table presents a list of the Nivacle applicatives, together with their core meanings (i.e. non-metaphoric and/or idiosyncratic extensions).

[3] More information on the wide range of uses of the instrumental in Nivacle, which go way beyond its core meaning, is given in Fabre (2011).

TABLE 3
LIST OF NIVACLE LOCATIVE, BENEFACTIVE AND INSTRUMENTAL APPLICATIVES

Locatives Neutralization of difference between translational motion (source/goal) and stasis (in/at)		1	*-'e(')*	'punctual; proximal$_1$'
		2	*-a*	'punctual; proximal$_2$'
		3	*-i*	'distal/invisible'
		4	*-nee*	'here'
		5	*-shi'na*	'hereabout'
		6	*-shi' / -ji'*	(1) 'unspecified Ground' (2) 'in container with small opening'
		7	*-ch'e' / -qu'e'* *-ch'e / -qu'e*	(1) 'long or extensively covered Ground'[4] (2) 'concave container with larger opening'
		8	*-'apee*	'Ground as surface; upon'
		9	*-'acfi*	'Ground under a roof-like cover'
		10	*-fach'ee*	'outside Ground'
		11	*-sha(a)m / -ja(a)m*	'through'
		12	*-chisham / -quisham*	'up'
		13	*-shicham / -jicham*	'down'
		14	*-tasham*	'inside&under'[5]
		15	*-sha'ne / -ja'ne*	'down on surface/ gravitation driven'
		16	*-jop*	'by, at side of (temporary)'
		17	*-cop*	'by, at side of (longer duration)'
		18	*-pacham*	'on the other side/across'
	instrumental		*-sh / -j*	'instrumental'
	benefactive		*-m*	'benefactive/malefactive'

Examples (4) to (7) illustrate the phenomenon of Ground recoverability from pragmatic conterxt. In (4) and (6), which explicitly mention a Ground, the applicative must be semantically compatible with it. In (4), *-shi'* APPL$_6$ (in container with small opening) and the DP *tnôjque* 'bottle/gourd' match, just like *-ch'e* APPL$_7$ (concave container with large opening) and the DP *t'itsech* 'water hole' in (6). By contrast, the applicatives in the lower lines of (4) and (6) exhibit a semantic clash with the Ground: *-ch'e'* cannot be linked to 'bottle/gourd', nor can *-shi'* be coindexed with 'water hole'. In (5) and (7), with no overt mention of a Ground, the applicative provides the listener/reader a rough cue about the kind of Ground involved. These examples clearly demonstrate that the applicative does not refer directly to 'water' but to (a salient feature of) the Ground where 'water' is to be found. If the applicative referred only to the noun 'water', one would expect agreement features between the two.

[4] It is not clear to me whether there are two different suffixes or only one with two functions. In any case, much variation appear in both speech and writing.
[5] This suffix is not frequent, and often interchangeable with *-'acfi*.

(4)

ja	*inôôt*	*Ø-sas-shi'*	*lha*	*tnôjque*
D3	water	3S-be.bad-APPL$_{CLOSED.CONT}$	D2	bottle/gourd
		**Ø-sas-ch'e*		
		3S-be.bad-APPL$_{WIDE.CONT}$		

'The water in the gourd/bottle is bad/dirty'

(5)

ja	*inôôt*	*Ø-sas-shi'*
D3	water	3S-be.bad-APPL$_{CLOSED.CONT}$

'The water (expected to be in a small opening container) is bad/dirty'

(6)

ja	*inôôt*	*Ø-sas-ch'e*	*lha*	*t'itsech*
D3	water	3S-be.bad-APPL$_{WIDE.CONT}$	D2	water.hole
		**Ø-sas-shi'*		
		3S-be.bad-APPL$_{CLOSED.CONT}$		

'The water in the pond is bad/dirty'

(7)

ja	*inôôt*	*Ø-sas-ch'e*
D3	water	3S-be.bad-APPL$_{WIDE.CONT}$

'The water (in a pond/on the ground/ on the road) is bad/dirty'.

Notes about some applicatives:

a. The difference between *-'e(')* APPL$_{PROX1}$ 'punctual/proximal$_1$' and *-a* APPL$_{PROX2}$ 'punctual/proximal$_2$' is not clear cut. It appears to be lexicalized, with a predominance of *-'e(')* over *-a*, which is more often used for abstract relations or affected human objects. Note also that *-a* is homophonous with the third person suffix:

(8a)

Ø-tiqu'in-'e	*ja*	*yitsaat*
3S-be.small-APPL$_{PROX.1}$	D3	village

'The village was small' (= it was small in/at the village, village area was small)

(8b)

t'-ichai-'e	
3S-rest-APPL$_{PROX1}$	

'S/he is/was resting there'

(9)

tsi-juj-'e	*ja*	*vônaj*
(3A>)1P-bite-APPL$_{PROX.1}$	D3	piraña

'The/a piraña bit me' (a bite is necessarily grounded on a victim's body)

(10)

t'-eclet-a	*pava*	*lha-vtsat-is*
3S-jump-APPL$_{PROX2}$	D16	3POS-village-PL

'They attacked their villages'

b. *-shi'/-'ji'* APPL$_{UNSP.GROUND}$ 'unspecified Ground' or APPL$_{CLOSED.CONT}$ 'in container with small opening'. The two senses are related in a subtle way. Paraphrasing Nivacle, if I ask 'Where is-unspecified.place water?' (i.e. using the applicative *-shi'/-ji'*), the water might be in the gourd in front of me or in an unknown place it could take me hours to find. In both cases, the space occupied by the water is undetermined (see ex. 5 above). The suffix *-shi'/-ji'* often also refers to intrinsic qualities.
c. *-sha(a)m / -ja(a)m* APPL$_{THROUGH}$ 'through/amongst' sometimes (11), but not necessarily (12), corresponds to its equivalent in English. It can also refer to a state of affairs involving Ground substances such as water, fire, or smoke (13), through which a Figure can pass:

(11)
jay-eclet-sham *ja* *lhavacla-chat*
1S-jump-APPL$_{THROUGH}$ D$_3$ water.plant-COLL.PLANT
'I jumped in the middle of aquatic plants'

(12)
Ø-sats'aas-sham *nava* *yi-yees*
3S-be.filthy-APPL$_{THROUGH}$ D$_{10}$ 1POS-hair.PL
'My hair is filthy'

(13)
a-yôji-sham *ja* *tovoc*
2IMP-order-APPL$_{THROUGH}$ D$_3$ river
'Order the river!' (= order through the river! [for a propitiating invocation])

d. *-'acfi,* APPL$_{UNDER}$ *-sha'ne* APPL$_{DOWN.ON.GROUND}$ and *-tasham* APPL$_{INSIDE\&UNDER}$. All differ from each other in subtle ways. The first involves a Figure situated under a roof-like plane. The second emphasises the end position of the Figure on the Ground, or at least some kind of gravitation driven force (falling, foraging, being pregnant), whereas the third expresses something taking place under and inside a Ground.

(14)
y-ui-'acfi *ja* *jpôyich*
3S-enter-APPL$_{UNDER}$ D$_3$ house
'S/he/it/they entered the house'

(15)
ts'-oi-sha'ne
1Sp-escape-APPL$_{DOWN.ON.GROUND}$
'I am pregnant'

(16)
ca *n-chaaj-sha'ne* *na* *vôôs*
SUB$_2$ 3A(>3P).SUBJ-catch-APPL$_{DOWN.ON.GROUND}$ D$_1$ sky
'[propping a tree] in order to sustain the sky (from falling on the Earth)'

(17)
yi-chaaj-sha'ne *lhpa* *lh-t'oicha*
3A(>3P)-catch-APPL$_{DOWN.ON.GROUND}$ D$_8$ 3POS-branch
'He grabbed a branch (suspending himself)'

(18)
t'-ôtai-sha'ne
3S-forage-APPL$_{DOWN.ON.GROUND}$
'S/he/ they forrage/ search for food (on the ground)'

(19)

ja-cleesh-tasham	*na*	*jpôyich*
1A(>3P)-clean-APPL$_{INSIDE\&UNDER}$	D$_1$	house

'I am cleaning (inside) the house'
e. *-ch'e(')* / *-qu'e(')* APPL$_{EXT.GROUND}$ 'long or extensively covered Ground' or APPL.$_{WIDE.CONT}$ 'Concave container with larger opening'. It is homophonous with both the AM suffix indicating a participant going away, as well as with one of the plural suffixes. The following cases are all applicatives:

(20)
Ø-t'un-ch'e'
3S-be.stiff-APPL$_{EXT.GROUND}$
'It (his whole body) was stiff (because he was freezing)'

(21a)

Ø-sas-ch'e	*na*	*nôyish*
3S-be.bad-APPL$_{EXT.GROUND}$	D$_1$	path/road

'The road is in bad condition'

(21b)

Ø-sas-ch'e'	*lha*	*yucuve-shi*
3S-be.bad-APPL$_{WIDE.CONT}$	D$_2$	bread-CONTAINER

'The oven (inside) is dirty'

(22)

ja-cleesh-ch'e'	*lha*	*yucuve-shi*
1A(>3P)-clean-APPL$_{WIDE.CONT}$	D$_2$	bread-CONTAINER

'I am cleaning (the inside of) the oven'

5. Directionality in Nivacle verbs. Few Nivacle verb roots are inherently directional. In order to express directionalty, speakers must often resort to various combinations of a verb root and other morphemes and/or to multi-verb constructions. The next two sections will deal with verb-internal directionality. The only morphemes that make reference to directionality are the cislocative prefix (*n-/t-* 'towards the deictic centre'), and the three associated motion suffixes (*-julh* 'simultaneous motion towards the S/A, associated actor visible', *-c'oya* 'temporarily postponed or expected motion towards the S/A, associated actor invisible at the time of event', and *-ch'e/-qu'e* 'simultaneous motion away from the S/A')[6]. Applicatives do not distinguish between directionality and stasis (see Section **4**). Associated motion as a category of its own is a relatively recent newcomer in the history of linguistic theory. According to Guillaume (2009),

[6] I surmise that this particular directional associated movement suffix is a metaphorical expansion of the homophonous applicative: long/covering Ground > going.

linguists working with Australian languages introduced it during the 1980s. Guillaume himself distinguishes eleven AM suffixes in Cavineña, a Takanan language of northern Bolivia. Most of them refer to an S/A argument, and two to the motion of an O argument.

5.1. Cislocative. The cislocative prefix *n-* is homophonous with, and probably grammaticalized from the very common middle/reflexive/reciprocal prefix. The moving Figure is always the S/A. The other cislocative, *t(a)-*, has exactly the same function, the use of one or the other prefix being fixed for each particular verb. In this case too, the similarity between the cislocative *t(a)-* and the reflexive prefix *ta(t)-* can hardly be a coincidence.[7]

(23)	(24)
j-am	*ja-n-am*
1S-go	1S-CISLOC-go
'I go/went (there)'	'I come/came (here)'

(25)	(26)
j-pec	*ja-t-pec*
1S-returned	1S-CISLOC-return
'I return(ed) (there)'	'I come/came back (here)'

The function of the cislocative is to reverse the inherent direction of motion away from the deictic centre (default translocative).

5.2. Associated motion suffixes (AM). AM suffixes are quite frequent, but they are remarkable in that they refer to the motion of a Figure that is either an O participant (P/T/R), or any other participant in the event, rather than the S/A. Here are some prototypical use of the AM suffixes.

(27)
ta *Ø-aplhu-c'oya*
Q 2POS-time-AM.ANT.VENT
'When are you coming back?'

Some monovalent verbs can marginally appear with an AM suffix, but this is, at best, a marginal phenomenon, since a S/A coming or going away is normally rendered by a subordinate clause. In (28), it may be claimed that the sun is neither subject or object of the sentence, but only a background participant. From the core meaning of the verb *-claash* is 'to shine', it is easy to understand that this state of affairs had its origin in the irradiating sun.

[7] The same morpheme can also also be prefixed to some nouns referring to closely-knit relations between people: *-ja'ya* 'spouse' => *ta-jaya-s* (REFL-spouse-PL) 'couple', *-chifa* 'inhabitant from the same village' => *ta-chifa-s* 'closely related person from the same village', *-ts'a* 'friend' => *ta-ts'a-vot* (REFL-friend-PL) 'mates'.

(28)
meelh *ti* *claash-julh* *jumcuclaai*
when SUB$_1$ 3S.shine-AM.VENT sun
'At dawn (when shining began spreading from the sun)'
The verbs in (29-33) are bivalent, and the AM suffixes are coindexed with the patient/object:

(29)
tsi-'van-ch'e
(3A>)1P-see-AM.IT
'S/he sees/saw me leaving'

(30)
c'a-'van-ch'e
1A(>2P)-see-AM.IT
'I see/saw you leaving'

(31)
c'a-'van-julh
1A(>2P)-see-AM.VENT
'I see/saw you coming'

(32)
j-ovalh-julh
1A(>3P)-watch-AM.VENT
'I watch(ed) him/her/it/they coming'

(33)
j-ovalh-c'oya
1A(>3P)-watch-AM.ANT.VENT
'I watch(ed), waiting for him/her/they to come'

In (34a), the verb is monovalent, and there is a further participant, represented by the suffixed second person morpheme. Though there are two moving Figures, the AM suffix is coindexed with the second person, not the first. In (34b), a non-subject participant is understood.

(34a)
ja-cumaj-'a-julh
1S-run-2-AM.VENT
'I run/ran towards you (while you are approaching)'

(34b)
va-cumaj-c'oya
3S-run-AM.ANT.VENT
'S/he runs away (from a potential threat)'
Note that with an applicative (35a), or a person suffix (35b), the Figure in motion is the subject:

(35a)
ja-cumaaj-e-i *na* *jpôyich*
1S-run-3-APPL$_{DIST}$ D$_1$ house
'I am running towards the house'

(35b)
va-cumaj-a *pa* *lha-vstaat* *papi* *juutshinja-s*
3S-run-3 D$_7$ 3POS-village D$_{15}$ Toba-PL
'They broke into a gallop straight towards the village of the Tobas'

In (36a), (36b) and (37), the idea of both motion and presence of a non-subject participant is entirely conveyed by the AM suffixes.

(36a)
ya-ai-ch'e
1S-smile-AM.IT
'I am smiling/smiled (to someone going away)'

(36b)
ya-ai-'a-ch'e *ti* *lh-ôc*
1S-smile-2-AM.IT SUB$_1$ 2S-go
'I smile(d) at you when you go/went away'

(37) represents a measure of the location of a Figure at a distance from a Ground rather than motion of the Figure (cf. compative constructions 40a-b below):

(37)
ya'-toj-c'oya
1S-be.far-AM.ANT.VENT
'I come from far away' or 'I am far away'

The following examples are statements about the job of a goalkeeper: (38a) alludes to his role of waiting for the ball to come, whereas (38b) concerns his taking action on seeing the it coming, and (38c) refers to the happy result, as shown by the different locative applicatives attached to the same verb-root:

(38a)
t'a-cum-c'oya *lha* *pelota*
3S-seize-AM.ANT.VENT D$_2$ ball
'S/he is ready to catch the/a (any potential) ball'

(38b)
t'a-cum-julh *lha* *pelota*
3S-seize-AM-VENT D$_2$ ball
'The ball is coming towards him/her as s/he is ready to catch it'

(38c)
t'a-cum-'e *lha* *pelota*
3S-seize-APPL$_{PROX1}$ D$_2$ ball
'S/he stops/stopped the ball / has it in his/her hands'

In (39), the AM suffixes refers to God, neither subject or object, who was waiting for Abraham to come out. This example also shows that applicatives and AM suffixes may appear side by side in the same verb:

(39)
pa *yi-t'-e-sh-a* *pa* *Abraham*
and 3S-say-3-INSTR-3 D$_7$ Abraham
ca *n-ôc-fach'ee-c'oya* *pa* *y-i'-acfi*
SUB$_2$ 3S.IRR-go-APPL$_{OUTSIDE}$-AM.ANT.VENT D$_7$ 3S-be-APPL$_{UNDER}$
'And he (God) asked Abraham to come out from his tent' ("he told to Abraham that he should come out from the place under which he was")

The AM suffixes are also used for verbal derivation and valency increasing, including comparative constructions (40a-b). Metaphorical expansions are not excluded either (41). Such cases do not necessarily imply any kind of *bona fide* motion.

(40a)
a-pitej-yi-c'oya
2S-be.tall-1-AM.ANT.VENT
'You are taller than me'

(40b)
ya'-pitej-'a-c'oya
1S-be.tall-2-AM.ANT.VENT
'I am taller than you'

(41)
j-aichavalh-c'oya *ca* *n-caaj* *jayu*
1A(>3P)-think-AM.ANT.VENT SUB$_2$ 3S.IRR-exist PROSP
lhpa *yi-peso*
D$_8$ 1POS-money
'I think I will get get money / I'm thinking about the money I will receive'

In a few cases, an AM refers to a possessor with inalienably possessed nouns, as in (27) above.

One may think of a typical Nivacle sentence as a verb phrase directly dominating a number of DPs, each of which is co-indexed in the verb, either as a core argument (verb prefix) or additional participant (verb suffix). This suggests that Nivacle applicatives have scope over the whole sentence. Time particles behave differently, as they may appear inside the VP or the DP, but in each case, their scope does not extend beyond the phrase they belong to. The deictic classifiers are more versatile in that some of their features like gender and number refer strictly to aspects of their dependent noun, but their visual evidential features have repercussions outside of their own structural domain, because they indirectly inform the temporal anchoring of the event.

The reader is invited to check the following examples, which represent well-formed and complete sentences. It will be seen that even if no explicit mention is made about the Ground of a particular state of affairs, a Nivacle verb typically adds one, giving rise to different interpretations or nuances (pragmatic inference). Note that (42a) and (42b) lack any dependent DP altogether, and the locative applicative is not anaphoric, although in a wider context it might well be:

(42a)
yi-yalh-p'o-ji
3S$_P$-breath-shut-APPL$_{CLOSED.CONT}$
'S/he drowned (e.g. in a river)'

(42b)
yi-yalh-p'o-qu'e
3S$_P$-breath-shut-APPL$_{WIDE.CONT}$
'S/he drowned (e.g. in a lake)'

(43a)
ja-clôvalh-e-sh *lha* *tele*
1A(>3P)-watch-3-APPL$_{INSTR}$ D$_2$ television
'I watch television'

(43b)
ja-clôvalh-ch'e *lha* *tele*
1A(>3P)-watch-3-APPL$_{WIDE.CONT}$ D2 television
'I'm looking inside the television (to repair it)'

(44)
ja-'van-shi *lha* *tele*
1A(>3P)-see-APPL$_{CLOSED.CONT}$ D2 television
'I saw him/her/it/them on television'

(45a)
ja-jo'-ji *lha* *colectivo*
1S-sleep-APPL$_{CLOSED.CONT}$ D2 bus
'I sleep in the coach'

(45b)
ja-jo-qu'e *ja* *canaleta*
1S-sleep-APPL$_{EXT.GROUND}$ D3 ditch
'I sleep in the ditch'

(46a)
yi-faash-sham *ca* *ita'*
3A(>3P)-cut.down-APPL$_{THROUGH}$ D5 forest
'He/they chopped (firewood) in the forest'

(46b)
yi-faash-ch'e *ca* *ita'*
3A(>3P)-cut.down-APPL$_{EXT.GROUND}$ D5 forest
'He/they fell down (trees) in the forest'

As numerous examples show, the presence of a locative applicative may appear, from our point of view, to be irrelevant or even incongruous. For a Nivacle speaker, however, Ground represents central information that must be reflected in the grammar. For instance, if a verb like 'to drink' appears without any applicative, its object will always be understood as an alcoholic beverage. If the only applicative is the instrumental, then all information concerning the liquid is backgrounded and the recipient is highlighted (47a), no implication about alcohol being made. In most cases, this verb picks out as its prototypical applicative suffix *-shi'/-ji'*, implying that the Ground is a container like a gourd (47b) and (47c). Notice that in (47b), the applicative must appear twice as both refer to the same liquid: first on the verb 'to drink', and then on the second 'to be salty'. This example shows also nicely that the applicative cannot be analysed as differential object. If it were, its presence on the intransitive 'to be salty' would remain unexplained[8]:

[8] When a transitive verb is followed by an applicative, it is tempting to think of it as a case of differential object. Stell (1987) considers the instrumental suffix as an object marker. However, all applicatives, both locatives and instrumental, appear in all kinds of contexts, including intransitive verbs.

(47a)
c'a-yô'-j *lha* *jarra*
1A-drink-APPL$_{INSTR}$ D$_2$ pitcher
'I drink from the/a pitcher'

(47b)
ni *y-en* *ca* *c'a-yô'-ji*
neg 1A(>3P)-like SUB$_2$ 1A-drink-APPL$_{CLOSED.CONT}$
pa *Ø-nucat-shi* *yinôôt*
D$_7$ 3S-be.salted-APPL$_{CLOSED.CONT}$ water
'I don't like to drink salt(ed) water'

(47c)
sht'i-yô'-ji *lhpa* *terere*
1INS-drink-APPL$_{CLOSED.CONT}$ D$_8$ terere (cold drink made of yerba mate leaves)
'We will drink terere (not yet prepared)'

In the same vein, although the verb *-iis* 'to write' (originally 'to mark') is bivalent, i.e. the prefix slot must be saturated by both Agent and Patient, it cannot be used without an instrumental and/or locative applicative. This is logical, since one cannot write without a marker of some kind (hence the instrumental) and writing always implies a support like a sheet of paper (hence the locative applicative). (48a) and (48b) were elicited from two different speakers, and describe the same event. In (48a), only the notebook is coindexed in the verb, whereas in (48b), an unmentioned pen is also coindexed as an instrumental applicative. The different applicative selected in each case follows from the morphological context. If the speaker coindexes only the support of writing, then s/he picks up the applicative *-shi*. If both support and instrument are mentioned or hinted at, then the corresponding locative applicative will be *-'e*. Observe that (48c), unlike (49), is ungrammatical[9], although both have a correctly saturated prefix (A+P). The grammaticality of (49) is, after all, not so surprising, as the general meaning is abstract and does not involve concrete elements such as an instrument or a support (Ground/location). In this respect, however, the behaviour of each particular verb appears to depend on idiosyncratic contextual, pragmatic premisses.

(48a)
qu'-iis-shi *na* *yi-qu'isjayanach*
1A(>3P)-write-APPL$_{CLOSED.CONT}$ D$_1$ 1POS-paper/notebook/book'
'I am writing it in my notebook' (without instrumental)

(48b)
qu'-iis-e-sh-'e *na* *yi-qu'isjayanach*
1A(>3P)-write-3-APPL$_{INSTR}$-APPL$_{PROX}$ D$_1$ 1POS-paper/notebook/book'
'I am writing it in my notebook'

[9] Interestingly, if we use the same verb in the antipassive, i.e. if we strip it from its object, the verb is grammatical, albeit acquiring a different meaning*: [apis ti] Ø-vanqu'-iis* ([already sub$_1$] 3S-antipas-write) 'S/he has [already] completed school'

(with instrumental, omitted, but understood DP *the/a pen*)

(48c)	(49)
**y-iis*	*y-en*
3A(>3P)-write	3A(>3P)-like/love
'S/he is writing it'	'S/he loves/likes him/her/it/them'

Particularly remarkable are examples where an abstract quality like colour or size is attributed to a physical object. Because quality words are verbs in Nivacle, if a quality is to be directly attributed to a noun, the speaker must resort to one of the relativization or nominalization strategies (50). This can go so far as to form a new noun, which maintains its original applicative. Like any noun, the new one can be used in the predicative form, by simply erasing its deictic classifier as in (51) and (52).

(50)

t'-ôs-'apee	*pa*	*yeclô'*	*pa-'lhech*	*yuc-shi'*
3S-step-APPL$_{UPON}$	D$_7$	stick	D$_7$-ANAPH	3S.be.red-APPL$_{CLOSED.CONT}$

'He (a shaman) strode on a stick which was (became his/used as) a sorrel (i.e. be [a horse] characterized as reddish)'

(51)		(52)	
pa	*yuc-shi'*	*pa*	*clim-shi'*
D$_7$	3S.be.red-APPL$_{CLOSED.CONT}$	D$_7$	3S.be.white- APPL$_{CÖOSED.CONT}$
'Red colour/paint; reddish object; sorrel'		'Flour'	

The fact that Nivacle applicatives do not show distinction between translational motion and stasis is illustrated by the applicatives *-shi'* 'unspecified ground'[10] and *-'acfi* 'under a plane situated above', but all the other applicatives display the same pattern. Another South American language that show this pattern is Mapuzungun/Mapuche (Wählchli & Zúñiga 2006). Some Nivacle examples follow in (53-58).

(53)		(54)	
ta	*y-i-shi'*	*ta*	*t'a-jui-shi'*
Q	3S-be-APPL$_{UNSP.GROUND}$	Q	3S-be.aimed.at-APPL$_{UNSP.GROUND}$
'Where is s/he/it/ Where are they?'		'Where has s/he / have they gone?'	

(55)

ta	*Ø-tôlh-shi'*
Q	3S-come-APPL$_{UNSP.GROUND}$

'Where does s/he/it / do they come from?'

[10] In other contexts, the same applicative refers to a Ground which may be described as a container with a small opening. The common denominator between both uses is the invisibility of a Figure situated within such a Ground.

(56)
y-i-'acfi *ja* *vat-casha'vat*
3S-be-APPL$_{UNDER}$ D$_3$ INDEF.POS-buy-PLACE (= shop)
'S/he/it was in the/a shop' (i.e. under a roof)

(57)
y-ich-elh-'acfi *pa* *Noe* *pa* *lh-ôv-jat-shiy*
3S-go-PL-APPL$_{UNDER}$ D$_7$ Noe D$_7$ 3POS-sit-ARTIFACT-CONTAINER (= vehicle)
'They entered Noe's arch'

(58)
t-ai-'acfi *ja* *jpôyich*
3S-depart-APPL$_{UNDER}$ D$_3$ house
'S/he/it/they left the house'

Interestingly, many Nivacle verb roots also neutralize aspectual differences in states/activities and accomplishments/achievements.[11] Out of context, it is often difficult to tell if a verb is to be understood as inchoative/non-inchoative, perfective/ imperfective or telic/atelic, especially since aspect marking is also lacking in Nivacle[12]:

(59)
yi-tuma
3S-be.pregnant
'She is/was/became pregnant'

(60)
taj-'apee *na* *cotsjaat*
3S-rain-APPL$_{UPON}$ D$_1$ earth
'It rains/rained/ was raining/began raining on the earth'

The speaker can always choose to be explicit, and use for example a more marked multi-verb construction, like in (61).

(61)
Ø-tô'lh-e-sham *ti* *taj-'apee* *na* *cotsjaat*
3S-come-3-APPL$_{THROUGH}$ SUB$_1$ 3S.rain-APPL$_{UPON}$ D$_1$ earth
'Rain began to fell on the ground' (the rain came through [the sky] so that it rained on the earth)

[11] I follow Vendler's terminology (1967), although, with respect to the Nivacle phenomena described here, I lump together states (+static, -telic, -punctual: to know, to be sick, to be seated), activities (-static, -telic, -punctual: to run, to swim), and accomplishments (-static, +telic, -punctual: to melt, to learn, to dry), on the one side, and achievements (-static, +telic, +punctual: to burst, to appear), on the other.

[12] Indirectly, a verb can acquire an imperfective reading through the use of *-taj* 'frustrative' or *-'in* 'intensive/repetitive action', but these morphemes cannot be considered as *bona fide* aspect markers.

These examples show that the use of locative-applicatives is strongly favoured by Nivacle speakers, even with verbs whose semantics do not refer to any motion or location. As far as I am aware, no such cases have been mentioned in the literature. One might wish to account for the use of locative applicatives with verbs that do not denote motion/location by positing an underlying complex predicate with VERB+BE_{LOC}, which would allow a Talmyan analysis. This solution is not satisfactory for three reasons. First, positing an underlying verb here is a purely *ad hoc* solution. Second, there are cases in which two verbs are combined in a construction, each with its own, not necessarily identical, locative applicative, as in (62), with two different Grounds, the *gourd* where the *water* is to be found presently (applicative referring to a container with narrow opening and noun preceded by the deictic classifier D_1), and its source, a waterhole (applicative referring to a wide, concave or long Ground and noun preceded by D_3 indicating that the source is known to the speaker but not at sight). This example exhibits one type of relatorless relative clause in Nivacle (cf. examples 4, 5 and 6 above):

(62)
Ø-sas-shi' *na* *inôôt* *Ø-tô'lh-ch'e*
3S-be.bad-$APPL_{CLOSED.CONT}$ D_1 water 3S-come-$APPL_{WIDE.CONT}$
ja *t'itsech*
D_3 water.hole
'The water (e.g. in this gourd) that comes from the well/water hole is dirty'

Thirdly, Nivacle already has an verb meaning exactly BE_{LOC}, which is very often used in coordination or subordination with another verb. This verb obligatorily appears with an applicative suffix (53, 56, 65). A better option readily available is to posit an elliptical Ground. Should the speaker wish to explicit the Ground, the semantic features of the applicative and the Ground must match. So if the *water* is dirty+$APPL_{CLOSED.CONT}$ (implying a container with narrow opening), it cannot be linked directly to the noun *water hole*. This is why (63a) is ungrammatical, whereas (63b) is grammatical.

(63a)
**Ø-sas-shi'* *na* *inôôt* *na t'itsech*
3S-be.bad-$APPL_{CLOSED.CONT}$ D_1 water D_1 water .hole
'The water in the water hole is dirty'

(63b)
Ø-sas-shi' *na* *inôôt* *lha tnôjque*
3S-be.bad-$APPL_{CLOSED.CONT}$ D_1 water D_2 bottle
'The water in the bottle is dirty'

6. Applicatives and AM suffixes: shared properties and differences. Locative applicatives as well as AM suffixes can both be used to refer to a participant. An important difference is that applicatives are not inherently directionals whereas AM suffixes are. Note that although (64a) and (64b) are grammatical, (64c) is not, because the noun *table* is not coindexed in the verb by way of an applicative. (64d) is also

grammatical. It can be read as anaphoric or as a clue to find the child hidden under something given by the context situation.

(64a)
ja-'van *na* *necjôôc*
1A(>3P)-see D_1 child
'I am seeing a child'

(64b)
ja-'van-'acfi *na* *necjôôc* *na* *mesa*
1A(>3P)-see-$APPL_{UNDER}$ D_1 child D_1 table
'I see the/a child under the table'

(64c)
**ja-'van* *na* *necjôôc* *na* *mesa*
1A(>3P)-see D_1 child D_1 table
'I see the/a child on/under/at the table'

(64d)
ja-'van-'acfi *na* *necjôôc*
1A(>3P)-see-$APPL_{UNDER}$ D_1 child
'I see the/a child under something (cf. German *darunter*)'

(64e)
ja-'van-ch'e *na* *necjôôc*
1A(>3P)-see-AM.IT D_1 child
'I see the/a child going away'

(64f)
ja-'van-julh *na* *necjôôc*
1A(>3P)-see-AM.VENT D_1 child
'I see the/a child approaching'

7. Packaging of Figure, Path, Manner, Motion/Location and Ground in Nivacle.
The meaning of many Nivacle motion verb roots being somewhat imprecise or vague, the applicative suffixes help the listener to narrow it down. Even then, the role of pragmatics together with the context turns out to be an indispensable ingredient in understanding the final message. To give a concrete example, Nivacle has a special verb with the narrow meaning 'to BE_{LOC}'. Interestingly, this verb is never used without an applicative. Inherently a posture verb, the combination with an applicative allows it to appear in a wide range of contexts, whose translation equivalents, in a western language for example, would not necessarily be a prototypical posture verb. (65) can be used of any object, animal or human located on a surface such as a table or a fallen tree trunk. In an aquatic context, it will mean 'to swim'. If the Figure is located on the back of a horse, it will have to be translated as 'to ride'. From the Nivacle point of view, the basic meaning will in each case be BE_{LOC}, and no derivation process need to be posited.

(65)
y-i-‘apee
3S-be-APPL$_{UPON}$
‘S/he / it /they is/are on (a surface)’

The number of Nivacle verb roots displaying a feature of Path or Manner is rather modest. This is in line with the observation made by Beavers et al. (2010) that languages differ significantly as to how many verbs of each type they have. Out of a data base of 1070 monovalent roots, i.e. the pool among which potential Manner and Path verbs would be recruited, I found only 52 translational motion verbs. Eighteen roots are deictic and inherently directional, four combine Manner with purpose, and twelve Manner with order/time. The remaining verbs are divided between eleven “pure” Manner roots and seven “pure” Path roots. The number of Nivacle motion verb roots that pick out a temporal feature like ‘before/first’, ‘after/second’, ‘slow/rapid’ is roughly as high as that of “pure” Manner roots (twelve against eleven). Moreover, when there is some ingredient of Manner, the same root can often also mean ‘to make, to do’ (*-ts’am* ‘to walk slowly; to make/do slowly/clumsily’). For each group of verbs, a few representative examples will be given.

(A) Manner roots

(66a)
t’a-fcos-‘apee *na* *vat-mô-jô’-vat*
3S-crawl-APPL$_{UPON}$ D$_1$ INDEF.POS-sleep-PLACE
‘S/he is crawling on the bed/ onto the bed’

(66b)
t’a-fcos-fach’ee *na* *jpôyich*
3S-crawl-APPL$_{OUTSIDE}$ D$_1$ house
‘S/he is crawling out of the house’

In (88c), there are two Paths: one coindexed with ‘house’, and the other with ‘mother’. As usual, the AM suffix refers to the movement of the non-subject participant.

(66c)
t’a-fcos-fach’ee-c’oya *na* *jpôyich* *lhja* *lha-mimi*
3S-crawl-APPL$_{OUTSIDE}$-AM.ANT.VENT D$_1$ house D$_4$ 3POS-mother
‘S/he is crawling out of the house (hoping to see) his/her mother coming’

(B) Manner & Order/Time specification roots:

(67)
y-ifaclit-e-i *japi* *lh-ch’injo-vot*
3S-hurry-3-APPL$_{DIST}$ D11 3POS-brother-COLL.KINSHIP
‘S/he / they hurried to his/her/their brothers’

(68)
t'-ôs-shaam *jayu* *na* *a-shatech*
3S-pace-APPL$_{THROUGH}$ PROSP D$_1$ 2POS-head
'He will step on your head (smash through your head)'
(C) Path roots (with intrinsic directionality, various degrees of elaboration of Ground and/or Figure):

(69a)
n-at-sham *ja* *inôôt*
3S-fall-APPL$_{THROUGH}$ D$_3$ water
'S/he /it fell in the water'

(69b)
lhja *yi-peso-ji* *n-at-ch'e* *lhja* *t'itsech*
D$_4$ 1pos-money-CONTAINER 3Sp-fall-APPL$_{WIDE.CONT}$ D$_4$ well
'My wallet fell into a/the well'

(70)
y-afalh *na* *vôôs,* *n-at-'apee* *papi* *nivacle*
3S-fall D$_1$ sky 3Sp-fall-APPL$_{UPON}$ D$_{15}$ people
'The sky fell, it fell on the men'

(71)
ja-vôôlh-chisham
1S-climb-APPL$_{UP}$
'I climb(ed) up'

(D) Deictic or inherently directional roots (away/towards):

(72)
va-pec-ch'e *lh-aishivo* *lhja* *camión*
3S-go.back-APPL$_{EXT.GROUND}$ 3POS-track D$_4$ lorry
'The lorry backed up on its tracks' (applicative + relational noun)

(73)
ja-vat-jutse-e-sh *ca* *j-ôqu-e-i-chisham*
1S-REFL-act.first-3-APPL.$_{INSTR}$ SUB$_2$ 1S-go-3-APPL$_3$-APPL$_{UP}$
'I will climb first'

The two applicatives in (74) combine to refer to the same Ground, along and up the tree.

(74)
na *tanuc* *va-cumaj-ch'e-tsham* *lhja* *aacjiyuc*
D$_1$ cat 3S-run-APPL$_{EXT.GROUND}$-APPL$_{UP}$ D$_4$ tree
'The/a cat ran up all along the tree (trunk)'

In (75), the first applicative refers to the preceding second person participant affix, while the other refers to the Ground ‘house’:

(75)
ja-cumaj-‘a-i-fach’ee *ja* *jpôyich*
1S-run-2-APPL$_{DIST}$-APPL$_{OUTSIDE}$ D$_3$ house
‘I ran out of the house towards you’ (cf. German verb prefix *hin.aus-*, the first part of which corresponds to the inherent translocative Nivacle root, and the second to the applicative)

(76a)
Ø-ta-cumaj-‘acfi
3S-CISLOC-run-APPL$_{UNDER}$
‘S/he is running in’ (cf. German verb prefix *her.ein-*, the first part of which corresponds to the Nivacle cislocative prefix *-ta-*, and the second to the applicative)

(76b)
Ø-ta-cumaj-fach’ee
3S-CISLOC-run-APPL$_{OUTSIDE}$
‘S/he is running out’ (cf. German verb prefix *her.aus-*, the first part of which corresponds to the Nivacle cislocative prefix *-ta-*, and the second to the applicative)

In (76c), the cislocative marks a Path related to the first person suffix, and the applicative licenses the Ground ‘house’:

(76c)
lh-ta-cumaj-yi-fach’ee *ja* *jpôyich*
2S-CISLOC-run-1.APPL$_{OUTSIDE}$ D$_3$ house
‘You ran out of the house towards me’

(E) Manner & purpose roots:

(77a)
Ø-naash-shicham *nava* *vôs-ei*
3S-go.along-APPL$_{DOWN}$ D$_{10}$ sky-PL
‘The clouds went by very low’

(77b)
Ø-nash-‘apee *pa-n* *yi-tish-c’oya* *ti* *Ø-vaf*
3S-go.by-APPL$_{UPON}$ D$_7$-PRON 3A(>3P)-dig-AM.ANT.VENT SUB$_1$ 3S-die
‘He stepped on a place where s/he had been buried’

(77c)
Ø-nash-jop-‘in *lhpa* *Nasuc*
3S-go.by-APPL$_{SIDE}$-INTENS D$_8$ Nasuc
‘She kept passing by the Nasuc-tree (guayacán)’

This section has shown that the Nivacle manner verb roots slightly outnumber those indicating incorporated path (27 against 25). There is, however, a striking discrepancy in that all path roots are frequently used, whereas ten manner roots very rarely crop up. This fact significantly lessens the total of recurrently used manner verb roots.

8. Further strategies for expressing Motion events. In a recent article, Beavers, Levin & Tham (2010) suggested that in order to list the different strategies available to speakers, one should move beyond Talmy's monoclausal constructions consisting of one verb. According to these authors, the two motion verb types, Path-Verb and Manner-Verb, yield the following typology:

1) Path as Verb
   i) if the language has monoclausal multiverb constructions, manner may also be expressed as V
   ii) if the language has manner adverbials (ideophones, subordinated clauses, adverbs), these may encode manner

2) Manner as Verb
   i) if the language has monoclausal multiverb constructions, Path may also be expressed as V
   ii) if the language has the appropriate result satellites (affixes, applicatives, semantic cases, adpositions, particles), these may encode Path
   iii) if the language has until-markers, these may be used to encode Path

The following possibilities can be exploited for encoding Manner and Path without using Path satellites (Beavers, Levin & Tham 2010):

Serial verbs	V_{manner} V_{path}
Compound verbs	V_{manner} + V_{path}
Complementation	V_{manner} PP/DP_{path}
Subordination	V_{path} $V_{manner\text{-}participle}$
Adjunction	V_{path} Adv/PP_{manner}

8.1. Multi-verb constructions. A prototypical serial verb construction is conceptualized as a single event. It is monoclausal and lacks any subordination, coordination or dependency marker. It also has one tense, aspect, mood and polarity value, i.e. it consists of a single predicate. As the distinction between serial verbs and other types of multi-verb constructions is not clear-cut, it is better seen as a cline (Aikhenvald 2006, 2011). The non-existence of the morphological categories of tense and aspect deprives us from one of the central criteria to assess whether Nivacle has serial verbs. Time, aspect and Aktionsart information in Nivacle is contextual, resulting from the combination of different factors, among which figure prominently the deictic classifier system, multi-verb constructions, as well as some optional particles interspersed throughout the utterance.[13] It is nevertheless a fact that Nivacle makes very frequent use of different types of multi-verb constructions, usually with, but sometimes without applicatives if two path roots are involved. Two verbs may appear side by side, without any linker, but it is not always clear whether they should

[13] Instead of tense and aspect, Bohnemeyer et al. (2007) propose the looser criterion of time adverbials.

be conceptualised as one or two events. All multi-verb construction are of the symmetrical type, i.e. any verb can be involved. In (78), the first verb root encodes Manner while the applicative encodes a Path obviously linked to a Ground (the mountain's foot). The directional reading of this Path follows as a pragmatic inference in combination with the root[14]. The second verb root represents a deictic Path, followed by an applicative referring to the second Ground of the event (the mountain top). The fact that the manner verb usually precedes the path verb in multi-verb constructions may reflect temporal iconicity (Beavers et al. 2010).

(78)
t'-eclet-sha'ne *Ø-tôlh-'apee* *lhpa* *uti-yuc*
3S-jump-APPL$_{DOWN.ON.GROUND}$ 3S-come-APPL$_{UPON}$ D$_8$ stone-TREE (= mountain)
'He came jumping from the mountain top' ("he jumped down he came [from] the mountain top")

Although a construction like (78) is far from rare, those with subordinators or coordinators are more frequent, and may or may not depict motion events. A purposive reading is possible in (79), but mostly depends on the context.

(79)
Ø-fô'yôôj *ti* *yi-clôt*
3S-fly SUB$_1$ 3S-flew
'It flied away' ("it-flied [so] that/in order to flew" or "it flied and it flew/ flew away")

Nivacle has a few adverbial particles[15], and the translation equivalents of adverbs are usually plain verbs. A verb in a main clause may be followed by a subordinate clause containing a verb that encodes manner:

(80)
ni *Ø-pôtsej-a* *ti* *yi-fô'yô*
NEG$_1$ 3S-be.quick-NEG$_2$ SUB$_1$ 3S-fly
'It does not fly rapidly ("it is not quick when it flies")

In (81a), it is the other way round: the first root encodes manner, and the second motion away from the deictic centre. Although the second root expresses inherent motion, it does not by itself licences the following noun, which represents the end Ground of motion. The combination of inherent motion root + locative applicative is obligatory. (81b) is the reverse construction, with the second root inherently expressing motion away from. Here too, the applicative suffix is obligatory:

[14] Recall that locative applicatives are neutral for source/goal/stasis.
[15] Adverbial particles refer mostly to time expressions. Since they frequently exhibit locatives or intrumental applicatives, it is likely that at least some of them are derived from verb roots or predicatively used nouns.

(81a)
ja-vaclech *jayu* *ca* *j-ôqu-e-i* *ja* *mercado*
1S-walk PROSP SUB$_2$ 1S-go-3-APPL$_{DIST}$ D$_3$ market
'I shall walk to the market'

(81b)
ja-vaclech *jayu* *ca* *ja-tô'lh-e-i* *ja* *mercado*
1S-walk PROSP SUB$_2$ 1S-come-3-APPL$_{DIST}$ D$_3$ market
'I shall walk from the market'

(82)
Ø-tô'lh-e-sh-sham *ti* *n-at-'apee* *na* *cotsjaat*
3S-come-3-APPL$_{INSTR}$-APPL$_{THROUGH}$ SUB$_1$ 3S-fall-APPL$_{UPON}$ D$_1$ earth
pa lha-'vinot pa cha'nu-icha
D$_7$ 3POS-water D$_7$ rain-AUGM
'The rain of the flood began falling on the earth'

(83)
y-am-'e *pa* *Booz* *Ø-tôlh-e-i* *pa* *Belen*
3S-arrive-APPL$_{PROX}$ D$_7$ Booz 3S-come-3-APPL$_{DIST}$ D$_7$ Bethlehem
'Booz arrived from Beetlehem' ("he-arrived-there [and] he-came-from")

(84)
pa-'lhech *Ø-tôlh-shi'* *ti* *Ø-ta-pec* *pa*
D$_7$-ANAPH 3S-come-APPL$_{UNSP.GROUND}$ SUB$_1$ 3S-CISLOC-return and
Ø-n-am-e-i *shita* *ja-'lhech* *Mariscal* *ti*
3S-CISLOC-3-APPL$_{DIST}$ also D$_3$-ANAPH Mariscal SUB$_1$
jôjjiclai *ni* *Mariscal-a*
yet/already NEG$_A$ Mariscal-NEG$_A$
'From there they came (in order) to return (here) and came here to [the locality of] Mariscal, who was not yet (i.e. before it was called) Mariscal)' ("they-came-from, they-returned-here, they-came-here-from [that place far away]")

8.2. Applicatives in multi-verb constructions. The concepts of Manner and Path often result from combinations involving a verb root followed by applicative(s) or two interdependent verb roots. It is not always clear whether the last is to be analysed as coordination or subordination. The presence of the realis subordinator in (85) is no water-proof guarantee for *bona fide* subordination. Many examples of verb chaining use the same strategy to coordinate different verbs in a sequence, or to form a frequent type of relative clause.

(85)
t-ai-jop *ti* *va-cumaj-e-i-vati-ch'e*
3S-change.location-APPL$_{SIDE}$ SUB$_1$ 3S-run-3-APPL$_{DIST}$-REFL-PL[16]
'They ran away (as one man) from his side'[17]

(86)
va-cumaaj-e-i *lhôn* *pa* *tovoc*
3S-run-3-APPL$_{DIST}$ REPORT D$_7$ river
ti y-ui-shi-c'oya lhôn papi nivacle
SUB$_1$ 3S-enter-APPL$_{CLOSED.CONT}$-AM.ANT.VENT REPORT D$_{15}$ Nivacle
'He ran and jumped into the river in order to escape from the Nivacle (chasing him)'

Two Paths are combined in the verb roots of the relative clause (87): deictic Path with the first and Goal in the second. The first applicative points to the distal Goal and the second to the end-point of the Figure's motion. Recall once again that applicatives are by themselves neutral as far as motion or stasis. Only in combination with a root can they be understood as Source, Goal or Location.

(87)
y-am-e-i *pa-n* *y-ôj-'e* *pa* *itaa*
3S-go-3-APPL$_{DIST}$ D$_7$-REL 3S-end-APPL$_{PROX}$ D$_7$ forest
'He arrived at the edge of the forest' ("at the place where the forest ends")

8.3. Applicatives and relational nouns. Nivacle relation nouns belong to a subclass of inalienable nouns.[18] All relational nouns in Nivacle are names of parts of wholes, and bear some resemblance to adpositions, but differ from the latter in one crucial point. They cannot alone combine with a noun to yield an adpositional phrase. The verbal applicative remains the sole indispensable ingredient of the construction, the function of the relational noun being to focus on a particular aspect of the Ground, i.e. the portion of it that is considered important. Only a few applicatives appear frequently in combination with relational nouns.[19] This can be explained by the fact that in such cases, the applicative only serves to establish a general, mostly purely formal, locative relation between a Figure and a Ground, the main semantic component being introduced by the relational noun. Names of parts of wholes, when not used as relational nouns, must, like any other nouns, be preceded by a deictic particle. If used as a relational noun, they loose their deictic particle, thereby signaling that are no longer being used as independent nouns. The following is a list of most relational nouns used in Nivacle in combination with an applicative, together with their source or derivates: *-aco* 'side; corner' (< *-aco* 'hips'), *-cachi'* 'centre',

[16] There are numerous plural morphemes in Nivacle, one of which is -ch'e/-qu'e. The homophony with the applicative for 'long/extensive ground' does not seem fortuitous. A plurality of actors easily affects an extensive surface of ground. Hence the recurrent polysemy in Nivacle.
[17] The meaning of the verb *-ai* implies two Figures changing their position vis-à-vis each other. Depending on the context, it may mean 'to join X' or 'to go away, to leave X'.
[18] For an areal overview of inalienable nouns and possessive constructions in the languages of the Chaco see Fabre (2007b).
[19] *-e(')* is the most frequent applicative used with an accompanying relational noun.

-cachi-'vat 'middle part' (< *-cachi'* 'belly'), *-c'o'* 'end; extremity' (< *-c'o'* 'buttocks'), *-ch'ami-nish* ~ *-ch'ami-yish* 'left side' (< *-ch'ami-n* 'to be left-handed'), *-faiyiish* 'right side' (< *-faiyiish* 'right hand'; cf. *-faishi-n* 'to use the right hand; *-fai-jan* 'to be used to'), *-jui-yish* 'front part; in front of' (< *-jui* 'to head for; to make one's way to'), *-ôiyii-sh* 'back part; behind' (< *-ôiyii* 'to have one's back turned; to be the wrong way round'), *-taco* 'side' (> *-aco-i* 'to be beside; to be leaning'), *-vôôj* 'side; size'.

(88a)
y-i-e'-sha'ne *lha-vôôj* *ja* *ruta*
3S-be-APPL$_{DOWN.ON.GROUND}$ 3POS-side D$_3$ road
'They sat by the side of the road'

(88b)
na *cuvôyu* *y-i'-shi'* *lh-cachi'vat*
D$_1$ horse 3S-be-APPL$_{CLOSED.CONT}$ 3POS-middle.part
na *vat-cac'ôvat*
D$_1$ INDEF.POS-plantation
'The horse is in the middle of the field'

(88c)
lha *lh-ashi* *y-i-e'* *t'-ôiyiish* *na* *jpôyich*
D$_2$ 3POS-opening 3S-be-APPL$_{PROX}$ 3POS-back D$_1$ house
'The corral is behind the house'

(89)
yi-pe'ye-e' *t'a-jui-yish*
3A(>3P)-hear-APPL$_{PROX}$ 3POS-be.in.front-NOMNLZ
'They heard it in front of them'

(90)
y-am-e-i *lha-c'o'* *pa* *yitsaat*
3S-go-3-APPL$_{DIST}$ 3POS-end D$_7$ village
'S/he arrived at the other end of the village'
The noun *cotsjaat* 'earth; ground', although not relational, very frequently appears in what looks like a typical relational construction, i.e. without deictic classifier:

(91)
y-u'j-a=ts'ivee *cotsjaat* *pava* *sajech*
3A(>3P)-throw-APPL.$_{PROX}$=PL earth D$_{16}$ fish
'He/they threw the fishes on the ground'

9. Conclusion. Throughout this paper, I have discussed a number of cross-linguistically unusual or unattested features occurring in Nivacle, some of which are shared by neighbouring languages from the Mataguayo (for Chorote, see Carol 2010, 2011a, 2001b; for Wichí, Vidal & Nercesian 2005) and Guaykurú families (for Toba, see Censabella 2006, González 2010, Klein 1981, and Messineo & Klein 2005). The

lack of adpositions and/or nominal cases in Nivacle is compensated for by the obligatory use of applicatives. The ubiquity of the Nivacle locative applicatives, and especially in contexts where, from a Eurocentric point of view, we might wonder why reference to a Ground location has to be made, stands out as a remarkable phenomenon. Because the total number of locative applicatives is limited to eighteen, the expression of more complex spatial relations can be achieved by diverse strategies such as applicative stacking, multi-verb constructions (especially as an alternative to applicative stacking) and the use of applicatives together with relational nouns. Relational nouns are a subclass of inalienable nouns which are used without a deictic classifier and appear immediately after the verb. Other unusual features of Nivacle that have been discussed are the indifference source/location/goal of the applicative suffixes and the existence of three associated motion verb suffixes, which refer the motion of a non-subject participant towards or away from the deictic centre.

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