Property Verbs in Two Amazonian Languages

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Abstract

In this paper we examine the encoding of property words (*i.e.* property concepts / adjectival words) in two languages to show how **prototypical properties associated with the nature of verbs or of nouns (exclusively) can determine the alignment of the grammatical encoding of such concepts as nominal or verbal**. We will show that in Apurin property words split into two classes, one that takes subject markers and another that takes object markers. A similar (but not identical) split is shown for Paresi, which is added to the comparison to show how similar semantic motivations can lead to distinct (but related) grammatical encoding. We argue that the two languages illustrate two different ways languages can align the encoding of property concepts: aligning them on the basis of one prototypical semantic property of verbs, or splitting such concepts into a first subclass on the basis of a prototypical semantic property of verbs and into a second subclass on the basis of a prototypical semantic property of nouns, aligning them accordingly. Finally, the status of of such systems in linguistic typology is also discussed.

บทคัดย่อ

ในบทความนี้ ผู้วิจัยได้ศึกษาการแสดงรูปคำบ่งบอกคุณสมบัติ (ได้แก่คำแสดงแนวคิดที่เกี่ยวข้องกับคุณสมบัติ หรือคำคุณศัพท์) ในภาษาสองภาษา เพื่อแสดงให้เห็นว่าคุณสมบัติที่ถือกันว่าผูกกับธรรมชาติของคำกริยาหรือของคำนามโดยเฉพาะ สามารถที่จะกำหนดการจัดเรียงของการแสดงรูปทางไวยากรณ์ของแนวคิดดังกล่าวในคำกริยาหรือคำนาม ผลการวิเคราะห์แสดงให้เห็นว่าในภาษาอะปูรินา คำบ่งบอกคุณสมบัติแบ่งออกเป็นสองกลุ่ม กลุ่มที่รับเอาเครื่องหมายแสดงประธานและกลุ่มที่รับเอาเครื่องหมายแสดงกรรม การแบ่งกลุ่มดังกล่าวยังพบในภาษาปาเรซี คุณสมบัติที่ทำให้เกิดการแบ่งกลุ่มในคำกริยาของทั้งสองภาษานี้แตกต่างกัน แต่ผู้วิจัยแสดงให้เห็นว่ามีปัจจัยที่เกี่ยวข้องกันทางอรรถศาสตร์ ภาษาทั้งสองแสดงให้เห็นวิธีที่แตกต่างกันที่ภาษาจัดเรียงการแสดงรูปคำบ่งบอก

คุณสมบัติ โดยที่จัดเรียงบนพื้นฐานของคุณสมบัติทางอรรถศาสตร์ดั้งเดิมของคำกริยา หรือจัดเรียง
โดยแบ่งกลุ่มคำดังกล่าวเป็นกลุ่มแรกโดยใช้คุณสมบัติทางอรรถศาสตร์ดั้งเดิมของคำกริยา และกลุ่มที่
สองบนพื้นฐานของคุณสมบัติทางอรรถศาสตร์ดั้งเดิมของคำนาม ท้ายที่สุดผู้วิจัยได้วิเคราะห์สถานะ
ของระบบดังกล่าวในการศึกษารูปแบบและสัญลักษณ์ทางภาษาศาสตร์

1. Introduction

Arawak is one of the most important and historically widespread language families in the South America continent.[ii] The goal of the paper is to present an analysis of property words in two languages of this family, Apurinã and Paresi. Property words refer to those words that, in general, translate as adjectives in the languages that have such a distinct word class. The extent to which a verb requires a direct object allows us to identify different classes of verbs, as well as other distinguishing properties that will follow from this class division. This information functions as background for an analysis of the behavior of property words in both languages. We will show that in Apurinã, property words split into two classes, one that takes subject markers and another one that takes object person markers. In Paresi, property words belong to the class of verbs that take the same set of person markers as intransitive verbs with undergoer argument. In explaining and motivating such patterns in the two languages, we will show how they illustrate two different ways a language can align the encoding of property concepts: aligning them on the basis of one prototypical semantic property of verbs, or splitting such concepts into a first subclass on the basis of a prototypical semantic property of verbs and into a second subclass on the basis of a prototypical semantic property of nouns, aligning them accordingly.

2. The Two Languages: Apurin and Paresi

The Apurinã language belongs to a subbranch of southern Arawak and is spoken by a few hundred speakers in nearly 50 small communities scattered along tributaries of the Purus River, in the western Amazon region of Brazil (See Map 1). Their total population reaches nearly 3000 people, out of which roughly 15-20% still speak the language with various degrees of fluency. Most of the fully fluent speakers are elders, and children in general are no longer learning the language. The analysis of Apurinã presented here is based on extensive field research done primarily by Facundes and Chagas. Earlier

descriptive work on this language was done by Pickering and Pickering (1964, 1971, 1973, 1974, 1977a, 1977b, 1978) and Aberdour (1985). Less technical linguistic information can be found as early as in the 19th century in Ehrenreich (1891) and Polak (1894), and from early to mid 20th century in K ch-Gr nberg (1919) and Nimuendaju (1955). A detailed description of the language was presented in preliminary form in Facundes (2000). A first in-depth analysis of verb classes in Apurin can be found in (Chagas 2007).

The Paresi language, spoken by the Haliti-Paresi people, likely forms a distinct branch within the Arawak family in relation to the branch Apurin belongs to. The population amounts to approximately 2000 people, 90% of which still speak the language. The Paresi people are distributed in several villages in the county of Tangar da Serra, state of Mato Grosso, in Brazil (See Map 1). The Paresi language has limited documentation (Rowan & Burgess, 1969; Rowan & Rowan, 1978; Silva, 2009, Brand o, 2010), and the data on which the analysis presented here is based comes from Brand o's fieldwork in 2007, 2008, 2009, and 2010. The first mentions of Paresi in the literature include Steinen (1894), Schmidt (1912, 1914, 1917, 1943), Roosevelt (1914), Roquete-Pinto (1917), and M traux (1948).

Map 1: Approximate location of the Apurin and Paresi communities
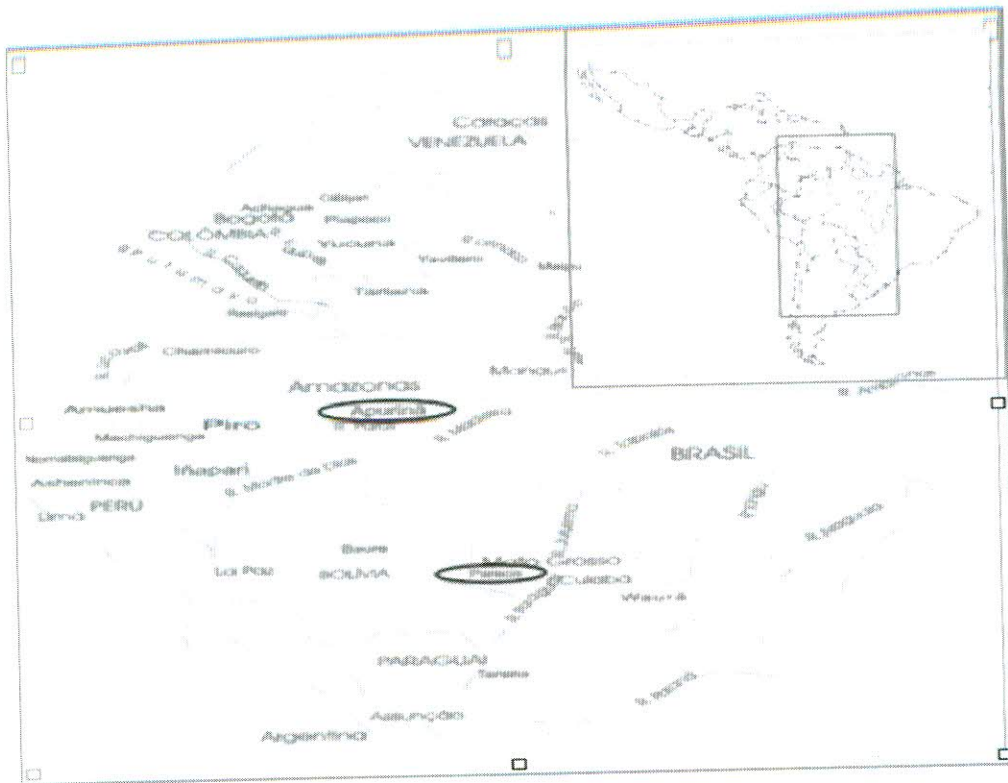
2.1 Verbs and Person Markers in Apurin

Verbs in Apurin can be transitive or intransitive depending on whether they require or not an object as a core grammatical relation, *i.e.* one required by the semantics of the verb. The distinction between subject and object in the language, as described in detail in Facundes (2000), are based on the factors listed in Table 1, which are not discussed here due to space constraints.

Table 1: Factors distinguishing subject from object in Apurin

CONSTRUCTION	SUBJECT	OBJECT
POST-VERBAL POSITION	proclitic person markers in the verb	enclitic person markers in the verb
CAUSATION	causer	causee
REFLEXIVE	maintained	replaced with -wa
RECIPROCAL	maintained	replaced with -kaka

In relation to the distinctions above, the proclitic and enclitic person markers are the most important grammatical factor to distinguish verb classes. As illustrated below, while independent pronouns make no distinction between subject and object, there are two distinct sets of person markers, one assigned to the subject in a clause or to the possessor in a noun phrase, and the other to the object. In the following table, examples a. illustrate each independent pronoun used as subject of an intransitive verb; examples b. illustrate independent pronouns used as object; examples c. illustrate independent pronouns used as possessor; examples d. illustrate proclitic markers used as subject of intransitive verbs; examples e. illustrate proclitic markers used as possessor; and examples f. illustrate enclitic pronouns used as object of a verb that carries the third person masculine singular proclitic as transitive subject.

In Table 2, the first person singular pronoun nuta is used as intransitive subject in (1a), object in (1b), and possessor in (1c). The first person singular proclitic ny- is used as intransitive suject in (1d), possessor in 1e., whereas the enclitic form -nu is used as first person singular object in (1f). In (2a-f), equivalent functions are illustrated for the first person plural independent pronoun, atha, the first person plural subject proclitic form, a-, and the first person plural object enclitic form, -wa:[iii]

Table 2: First person pronominal forms

Person, Gender & Number		Pronominal Forms				
		Independent Pronouns		Person Markers		
		Subject / Possessor / Object		Suject / Possessor		Object
1.	1SG	a.	*nutα mytekα* I ran.	d.	*ny-mytekα* I ran.	f. *y-kenekutα-nu* He heard me.
		b.	*nutα y-kenekutα* 'He heard me.'			
		c.	*nutα mãkα* my clothes	e.	*ny-mãkα* my clothes	
2.	1PL	a.	*αthα mytekα* We ran	d.	*α-mytekα* We ran.	f. *y-kenekutα-wα* He heard us.
		b.	*αthα y-kenekutα* 'He heard us.'			
		c.	*αthα mãkα* our clothes	e.	*α-mãkα* our clothes	

In Table 3, the second person singular pronoun pithe is used as intranstive subject in (3a), object in (3b), and possessor in (3c). The second person singular proclitic py- is used as intransitive suject in (3d), possessor in 3e., whereas the enclitic form -i is used as second person singular object in (3f). In (4a-f), equivalent functions are illustrated for the second person plural independent pronoun, hīte, the second person plural proclitic form hī-, and the second person plural object enclitic form, -i.

Table 3: Second person pronominal forms

Person, Gender & Number		Pronominal Forms					
		Independent Pronouns		Person Markers			
		Subject / Possessor / Object		Suject / Possessor		Object	
3. 2SG	a.	*pithe myteka* You ran.	d.	*py-myteka* You ran.	f.	*y-kenekuta-i* He heard you	
	b.	*pithe y-kenekuta* 'He heard you.'					
	c.	*pithe mãka* your clothes	e.	*py-mãka* your clothes			
4. 2PL	a.	*h ĩte myteka* You all ran.	d.	*h ĩ-myteka* You all ran.	f.	*y-kenekuta-i* He heard you all.'	
	b.	*h ĩte y-kenekuta* 'He heard you all.'					
	c.	*h ĩte mãka* your [pl.] clothes'	e.	*h ĩ-mãka* your [pl.] clothes'			

In Table 4, the third person masculine singular pronoun ywa is used as intransitive subject in (5a), object in (5b), and possessor in (5c). The third person masculine singular proclitic y- is used as intransitive subject in (5d), possessor in (5e), whereas the enclitic form -ry is used as third person masculine singular object in (5f). In (6a-f), equivalent functions are illustrated for the third person feminine plural independent pronoun, uwa, the third person feminine plural subject proclitic form u-, and the third person feminine plural object enclitic form, -ru. In (7/8a-c), equivalent functions are illustrated for the third person plural independent pronoun, ynawa. In (7d-f), equivalent forms illustrate the third person masculine plural subject/possessor proclitic form y-(...-na), and the third person masculine plural object enclitic form, -ry. In (8d-f), equivalent forms illustrate the third person feminine plural subject/possessor proclitic form u-(...-na), and the third person feminine plural object enclitic form, -ru.

Table 4: Third person pronominal forms

Person, Gender & Number	Pronominal Forms		
	Independent Pronouns	Person Markers	
	Subject / Possessor / Object	Suject / Possessor	Object
5. 3M.SG	a. *ywa myteka* He ran. b. ywa y-kenekuta 'He heard him.' c. *ywa mãka* this clothes	d. *y-myteka* He ran. e. *y-mãka* his clothes	f. *y-kenekuta-ry* He heard it/him / to him.
6. 3F.SG	a. *uwa myteka* She ran. b. *uwa y-kenekuta* 'He heard her.' c. *uwa mãka* her clothes	d. *u-myteka* She ran. e. *u-mãka* her clothes	f. *y-kenekuta-ru* She heard her/them.
7. 3M.PL	a. *ynawa myteka* They[f/m] ran.'	d. *y-myteka-(na)* They ran. e. *y-mãka (na)* their clothes	f. *y-kenekuta-ry* He heard them [m] /him/it.
8. 3F.PL	b. *Ynawa y-kenekuta* 'He heard them.' c. *ynawa mãka* their clothes	d. *u-myteka-(na)* They [f] ran. e. *u-mãka-(na)* 'their [f] clothes'	f. *y-kenekuta-ru* He heard them [f] / him/it.

Thus, what these examples show is the following:

9a. Independent pronouns in this language form a single set that does not formally distinguish among intransitive subject, transitive subject, object, and possessor roles;

b. Person markers belong to two sets: Set 1 is used as a mark of intransitive subject, transitive subject, or possessor, whereas Set 2 is used as object. (Preliminary version.)

Such distinctions are represented in Table 5, where parentheses are used to indicate that the plural form -na is absent in some of the language varieties:

Table 5: Person markers [iv]

Person / Gender	Set 1 Subject Person / Possessor Markers		Set 2 Object Person Markers	
	Singular	Plural	Singular	Plural
1	*ny-*	*α-*	*-nu*	*-wα*
2	*py-*	*hĩ-*	*-i*	*-i*
3m	*y-*	*y-...(-nα)*	*-ry*	*-ry*
3f	*u-*	*y-...(-nα)*	*-ru*	*-ru*

The picture represented in Table 5, however, still is not entirely correct as far as "intransitive subjects" are concerned. In fact, not all single arguments of intransitive verbs take the Set 1 person markers. As shown below, while some verbs do take Set 1 person markers, as in (10a), others take Set 2 person markers, as in (10b). The term "subjective intransitive" verb is used here to name intransitive verbs such as (10a), whereas verbs such as (10b) were termed "objective descriptive" (intransitive) verbs. It is the properties that distinguish standard from objective descriptive verbs that is our major concern in Apurinã and which we will discuss in the following subsections. (9) should then be revised as (11):

10a. *ny-tymα-tα*   I m tired.   b. *ere-nu*   I m pretty

     1SG-be.tired-VBLZ   be.pretty-1SG.O

11a. Independent pronouns in this language form a single set that does not formally distinguish among intransitive subject, transitive subject, object, and possessor roles;

  b. Person markers form two sets: Set 1 is used as a mark of the single argument of a subset of intransitive verbs (here called subjective verbs), as a mark of transitive subject, or as a mark of possessor, whereas Set 2 is used as a mark of the single argument of a different subset of intransitive verbs (here called objective intransitive verbs).

In the next subsections we will present each of the verb subclasses that derive from the use of Set 1 and/or Set 2 person markers, as well as the lexical semantic properties that motivate such marking patterns.

2.1.1 Subjective Intransitive Verbs

Subjective intransitive verb is the term used here to name any verb in Apurin that takes Set 1 person markers. Semantically, these verbs include those that translate as typical intransitive verbs in European languages, regardless of whether the single argument has an agent (12a), patient (12b) or experiencer (12c) role. As the examples in the left column show, Set 1 person markers are used on verbs whose subject has any degree of agentivity. The examples in the right column show that such verbs do not accept Set 2 person markers:

12a. *ny-mytekα*   I ran.   aa. **mytekα-nu*   (I ran)

     1SG-run   run-1SG

  b. *nh-iri-pe*   'I already fell down.' bb. **iri-pe-nu*   (I fell down')

     1SG.S-fal-PFTV   fall-PFTV-1SG.O

  c. *n-ymαkα-ku*   I will sleep.   cc. **ymαkα-ku-nu* (I will sleep)

     1SG-sleep-FUT   sleep-FUT-1SG

The same Set 1 person markers can also be used on some verbs that translate as adjective in languages like English and in Romance languages; that is, in words referring to

different property concepts, as illustrated in (13). Similar to (12), in (13) the left collumn shows the verbs with Set 1 person markers; the right collumn shows that such verbs do not accept Set 2 person markers:

13a. <u>ny</u>-matukynawa-ta   I m angry.   aa. *matukynawa-ta-<u>nu</u>   (I m angry)

     1SG-be.angry-VBLZ   be.angry-VBLZ-1SG

b. papate-<u>nu</u>   nuta   I m shy.   bb. *<u>ny</u>-papate   nuta   (I m shy.)

     be.shy-1SG 1SG   1SG-be.shy   1SG

c. y-kiumanhitxi   'I m old.   cc. *kiumanhitxi-<u>ry</u>   (He s old.)

     3SG.M-be.old   be.old-3SG.M.O

d. <u>u</u>-typãka   She s sitting.   dd. *typãka-ru   (She s sitting.)

     3F-be.sitting   3F-be.sitting

e. a-natxita   'We're hungry.   ee. *natxita-wa   ('We're hungry.')

     1pl-be.hungry   1pl-be.hungry

f. hỹ-thyma-ta   'You're all tired.'   ff. *tyma-ta-<u>i</u>   ('You're all tired.')

     2PL-be.tired-VLBZ   be.tired-vbl-2PL.O

g. y-natxi-ta-<u>na</u>   'They're hungry.'   gg. *natxi-ta-<u>ry</u>   ('They're hungry.')

     3M-be.hungry-VBLZ-PL   be.hungry-VLZ-3PL.O

h. p-amiana-ta   You re sick.   hh. *amiana-ta-i   (You re sick.)

     2SG-be.sick-VBLZ   be,sick-vblz-2SG

It should be noted that, the use of the term "subjective intransitive" here is slightly different from its previous use in earlier work in connection with this language. In earlier works, property verbs such as those illustrated in (13) were termed "subjective descriptive

verbs", a subclass of property referring verbs. These verbs are here grouped together with non-property verbs (such as those in (12)) on the grounds that they all take the Set 1 person markers. Hence, subjective intransitives here include all monovalent verbs that accept Set 1 person markers, and no Set 2 person marker.

2.1.2 Descriptive Objective Intransitive Verbs

In contrast to subjective intransitive verbs, which take Set 1 person markers, objective intransitive verbs accept only Set 2 person markers as the mark of their single argument, as illustrated in (14). As these examples show, objective intransitive verbs follow the reverse pattern of standard intransitive verbs:

14a. *pa-tima-ry* It/He is aa. **y-pa-tima-ry* (It/He's

VBLZ-be.fast-3M deer fast. 3SG.M-VBLZ-be.fast fast.)

b. *pũuk̃amara-ru* It/She is bb. **pũuk̃amara-ry mãkatxi* (It/She

be.red-3F.O red. be.red-3M.O clothes is red.)

c. *ka-tãta-ry* 'It has cc. **y-ka-tãta*

VBLZ-have.scales- scales.' 3M-VBLZ-have.scales It has scale.

3M.O

d. *axipity-nu* I m small. dd. **n-axipity* (I m small.)

be.small-1SG 1SG-be.small

e. *ere-i̲* You re ee. **p-ere* (You re

be.pretty-2SG pretty.' 2SG-be.pretty pretty.)

f. *pãawana-ry xiripitxi* The arrow ff. **y-pãawana xiripitxi* (The arrow

be.sharp-3m.o arrow is sharp. 3m-be sharp arrow is sharp.)

g. *pa-tima-ry manitxi* The deer gg. **y-pa-tima manitxi* The deer

VBLZ-be.fast deer is fast. 3m-VBLZ-be.fast deer is fast.

Since, as was shown above, subjective intransitives include some verbs that are property referring, the motivating factor is not simply property referring versus non-property referring. We have also seen that subjective intransitives also include verbs with agentive as well as non-agentive roles, such that agentivity can also be discarded as a motivating factor

for the intransivity split in the use of person markers. A more careful look at the verbs in (14) provides the first clue: All these verbs can be conceived as verbs referring to **more permanent states**. This is not to say that at least some of the concepts expressed by such verbs cannot be logically conceived as temporary properties, such as being always or only sometimes 'fast'. The fact is that verbs referring to typically permanent properties follow the objective pattern. This is the case of whether a fish has or does not have 'scale'. On the other hand, concepts that are typically temporary follow the standard intransitive pattern. This is the case of 'being hungry', a concept that if permanent would make one's existence somewhat difficult. Furthermore, as native speakers' judgments confirm, all verbs that follow the objective descriptive pattern translate as more permanent properties. This information is easy to assess, since most Apurin speakers can also speak Portuguese and are consistent in using the verb "ser" (not "estar"), which describes permanent properties in Portuguese (cf. Ser presidente 'To be the president' and Estar presidente 'To be acting as president'). Further and more robust evidence is found by examining verbs that can describe either permanent or temporary properties, depending on the context in Apurin , as shown next.

2.1.3 Descritive Ambivalent Verbs

Ambivalent descriptive verbs bear some semantic resemblance to objective descriptive verbs in that they consist of verbs referring to property concepts, but differ from both subjective intransitive and objective intransitive verbs insofar as they can take either Set 1 or Set 2 person markers, as the following examples illustrate. In (15), examples on the left column illustrate verb forms taking Set 1 person markers, thus following the subjective intransitive pattern; these same verb forms are also shown on the right column taking Set 2 person markers, thus following the objective intransitive pattern:

|					
15a.	*ny-maxika*	I m worried.	aa.	*maxika-nu*	I m (always)
	1SG-be.worried			be.worried-1SG.o	worried.
b.	*ny-pikare-ta*	I m afraid.	bb.	*pa-pikare-nu*	I m afraid.
	1SG-be.afraid-vblz			ATRIB-be.afraid-1SG	
c.	*ny-hereka*	I m well	cc.	*hereka-nu*	I m good.
	1SG-be.good	(Healed.).		be.good-1SG	

The ambivalent verbs in (15) reveal a consistent pattern: Concepts such 'be worried', 'be afraid', 'be good', among others, are those that can be conceived as temporary or permanent properties depending on the intended meaning. Someone can 'be worried' temporarily due to a short term concern, or can be thought of as a person who cannot help but always worry about matters.

2.1.4 Motivating Factors for the Property Verbs Split

On the basis of what was shown so far, we can state that the use of Set 1 and Set 2 person markers constitute a type of S-Split in the language, *i.e.* a split in the marking of the single argument of intransitive verbs, such that property referring verbs expressing more permanent properties, taking Set 2 markers, form a category distinct from all other verbs in the language. This analysis is reinforced by the fact that the language also shows semantic pairs of formally unrelated verbs such as those below, where the only meaning difference is that the first verbs (16a-b) describe more temporary properties, whereas the other verbs (16aa-bb) describe more permanent properties, with Set 1 person marker in the first cases, and Set 2 person markers in the second cases:

ny-keraka	I m skinny	aa. *ma-xinyke-nu*	I m skinny.
16a.			
1SG-be.skinny	(at a given time).	NEG-flesh-1SG	
b. *ny-enenika*	I feel happy.	bb. *pu-xuku-nu*	I m happy.
1SG-be.happy		ATTRIB-be.happy-1SG	

This S-Split can be represented as below, where A=more agentive argument of a transitive verb, S=argument of an intransitive verb, O=less agentive argument of transitive verb, Ss=argument of a subjective intransitive verb, So=argument of a objective intransitive verb (more permanent), and O=less agentive argument of a transitive verb:

17.   A ———— S ———— O
          Ss   So
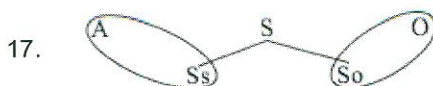
This distinction between transitory versus permanent states can be described in terms of lexical aspect, *i.e.* categories of aktionsarten, and operate in terms of three possibilities: inherent state, acquired state, or just unspecified state. As a result, intransitive verbs can be encoded as having subject, object or either, as determined by their lexical aspectual semantics.

2.2 Verbs and Person Markers in Paresi

Most of the verb morphology in Paresi consists of suffixes (for example the passive, reflexive, reciprocal, causative, tense and aspect markers), with only a few prefixes (the subject person markers and the negative marker). The prefixes used for possessors on nouns are the same prefixes indicating person/number of subject on verbs. The only difference between the set of person markers on verbs and on nouns is for the third person singular, which on verbs is unmarked, but on nouns can be marked by e-/i-.

Generally, the Arawak languages exhibit cross-referencing prefixes and suffixes, and some of them have a split-ergative pattern for marking grammatical relations (Aikhenvald, 1999), as was shown above in Apurin . Paresi has preserved only the suffix for the third person object (-ene) but it presents an interesting case of person marking where agency seems to be a determining factor in the distribution of the two sets of A/S person markers (Set 1 and Set 2), as shown in Table 6:

Table 6: Sets of person markers in Paresi

Number	Person	Set 1	mokα put	tsemα hear	Set 2	nemαkα sleep	kolotyα be.fat
Sg.	1	nα-	nα-mokα	nα-tsemα	no-	no-temαkα	no-koloti
	2	hα-	hα-mokα	hα-tsemα	hi-	hi-tsemαkα	hi-kolotyα
	3	Ø-	Ø-mokα	Ø-tsemα	Ø-	Ø-nemαkα	Ø-kolotyα
Pl.	1	wα-	wα-mokα	wα-tsemα	wi-	wi-tsemαkα	wi-kolotyα
	2	zα-	zα-mokα	zα-tsemα	xi-	xi-tsemαkα	xi-kolotyα
	3	Ø- -hα	Ø-mokα-hα	Ø-tsemα-hα	Ø- -hα	Ø-nemαkα-hα	Ø-kolotyα hα

In Brand o (2010) the analysis was that verbs taking Set 1 were active verbs and verbs taking Set 2 were stative verbs, and that the form a- in the morphemes of Set 1 was

an active morpheme. A prefix a- occurs in other Arawak languages as an active morpheme. However, the third person does not exhibit the morpheme a- and the distinction between events and states does not account for the whole distribution of some forms. Further analyses show that agency plays an important role. The labels Sets 1 and 2 are used here, instead of the semantic terminology agentive/non-agentive, because there are cases of verb forms which do not align themselves according to the semantics of agentivity/non-agentivity.

Verbs whose A/S arguments are actors (which perform, effect, instigate, or control the situation denoted by the predicate) are designated by Set 1; and verbs whose A/S arguments are undergoers are designated by Set 2. The latter include verbs for events that are not performed or controlled by the participant (such as die , wake up , sleep), and verbs expressing property concepts.

A verb can consist of a basic form as seen in (18a-b) or a derived form as in (18c-d).

18 a. *terα* drink   c. *α-itxo-tyα* weeding

                                          CAUS-hoe-VBLZ

    b. *no-terα* I drink   d. *kα-nαkairα* eat

       1S-drink   ATTR-food

In the next sections, we will present the 2 main classes of verbs.

2.2.1 Set 1 Verbs

Verbs in Set 1 consist of intransitive and transitive verbs[1] that have an agentive S/A argument. In this class, the verbs express events characterized as activities, as shown in (19):

19a. *nα-kαwitxitα* I shouted

   b. *nα-hikoα* I came out

   c. *nα-tonα* I walked

---

[1]   Transitive verbs differ from intransitive because they require two arguments and they can take the object pronominal marker -ene.

    d. *na-zawa-t-ene* I threw it

    e. *na-moko-t-ene* I hit him

    f. *na-nitx-ita* I ate

       Other types of verbs that fall in this class are: mental activity predicates, positional and motion verbs as seen in (19):

20a. *na-waiyore* I knew

    b. *na-tityoa* I stood up

    c. *na-meholokoa* I kneeled down

    d. *na-kola-t-ene* I brought it

       Verbs in this class have a semantic feature in common: they have arguments A/S who are agent/ performers of an action with control. The exception is the verb know, since perception verbs are generally considered to lack volition. In Mithun (1991, p.516) the notion of actor or agent is described as a participant which performs, effects, instigates, or controls the situation denoted by the predicate, whereas undergoer or patient is described as a participant who does not perform, instigate, control the situation.

       A similar case of prefix choices based on the semantic feature of agentivity is found in Pilaga, Guaykuruan family (Vidal, 2008). In Pilaga there are two sets of pronominal markers; one set is attached to stem verbs with agent subjects, while the other set is attached to verbs with patient subjects. However, the classification based on agentivity/non-agentivity is not straightforward. The same is found in Paresi, where few verbs with agent subjects appear on the Set 2 verb class, as seen below.

2.2.2 Set 2 Verbs

       This class consists of intransitive or transitive roots where the A/S argument is an undergoer. Most of the verbs in this class are intransitive stative verbs, verbs denoting states and time stability (Mithun, 1991). In Brand o (2010), the intransitive verbs have been classified in two groups: standard intransitive and descriptive intransitive verbs. The descriptive verbs included only verbs describing property concepts (21). Verbs describing states such as be hungry were not included in this class. However, since these two

semantic classes share the same morphosyntactic behavior in Paresi, they are placed here in one group.

21a. *no-koloti* I am fat

  b. *no-niri* I am thin

  c. *no-kiyα* I am black

In addition to verbs describing physical properties and colors, stative verbs such as the ones in (22) also describe a state or property. Some of these verbs take the suffix -hare for masculine and   -halo for feminine, called by Rowan (2008) as personifier, which marks the gender of the participants (see a-c). In the present analysis, all of these verbs are treated as stative verbs, since they also take Set 2 markers.

22a. *n-αmαikohαre*   I am sad

  b. *no-mαzαhαre*   I am lazy

  c. *no-wαhαhαre*   I am tall

  d. *no-nαk-itα*   I am hungry

  e. *no-hokαk-itα*   I am sick

In addition, there are stative verbs derived from nouns by the attributive prefix ka- or its allomorph k- (attributive and private derivations are common across Arawak languages, but in Paresi ka- (and its allomorph k-) derives a verb and the private ma- derives a noun), as in (23):

23a. *no-k-irαhαre*   I am tired

     1S-ATTR-tiredness

  b. *no-k-irα-ne*   I am small

     1S-ATTR-smallness-POSSED

  c. *no-mα-iyani-ni-hαlo*   The one who does nothave a husband

     1S-NEG-husband-POSSED-NMLZ

Other verbs taking Set 2 markers are a perception verb (see), a speech verb (tell), and

two bodily process verbs (cry and vomit), as illustrated in (24):

24a. *no-wɑiy-ene* I saw him

 b. *no-zɑkɑih-ene* I told it

 c. *no-tiyɑ*   I cried

 d. *no-txirɑka* I vomited

   There are, however, some exceptions. Some directed motion-verbs which specify the direction of the movement (Rappaport & Levin, 2010)- as shown in (25), take Set 2 markers:

25a. *no-zɑni*   I went

 b. *no-tyoɑ*   I came

 c. *no-kɑokɑ* I arrived

 d. *no-txiyɑ*   I passed

   Set 2 are also used on verbs derived from nouns, as in (26). Predicates in (26) have verbs derived from nouns through the attributive ka-. (27) illustrates verbs of activities also derived from nouns, through the prefix t- or ty-. It is not clear yet whether t- or ty- are verbalizers. The verb tera drink is derived from the noun era drink ; and tyoma make from omati act . In both cases, however, the explanation for taking Set 2 markers are likely because that is also the person marker for non-verbal predicates.

26a. *no-kɑ-iw-ene*   I stole it

  1S-ATTR-?-O

 b. *no- kɑ-nɑkɑiri* I ate

  1S-ATTR-food

 c. *no-kɑ-otse*   I woke up

  1S-ATTR-eyes

27a. *no-t-er-ene*   I drank it

  1S-VBLZ?-drink-O

 b. *no-ty-om-ene* I made it

  1S-VBLZ-act-O

There are cases where the verb stem in Set 2 class can occur with Set 1 markers. One would expect that when a verb has prefixes from Set 1, the participant has more control than when it had prefixes from Set 2. This is precisely what happens when the verb valency increases. Verbs in the Set 2 class can appear with Set 1 if they are transitivized or causativized with the morpheme -tyɑ   (28a-d)) or if they are in causative constructions with the morpheme -ki (28e):

28a. *nɑ-kɑotse-tyɑ*   I made someone wake up

   b. *nɑ-kɑitse-tyɑ*   I filled

   c. *nɑ-zotyɑ-tyɑ*   I make red

   d. *nɑ-erore-tyɑ*   make big   I make big

   e. *nɑ-kolotyɑ-ki-tsɑ*   I make fat

There are two pairs of examples, shown in (29), where that the sets may occur with verb that have identical forms but unrelated meanings. These seem to be instances of homonyms and no derivational relation exists between the members of each pair. In (28a-b), a Set 2 marker is used with the less active verb, 'sleep', and a Set 1 marker with the more active verb, as expected. In (28c-d), a Set 2 marker is used in both cases, although one verb, 'be afraid', is clearly less active than the other, 'to fish'. However, since the second verb seems to be derived, it may be another instance of verbs derived from nouns, as those shown in (26):

There are only two examples in (28) showing that a verb base may take either prefixes with different and unrelated meanings.

28a. no-tema-ka I slept

   b. *nɑ-temɑ*   I ran

   c. *no-mɑirɑ*   I was afraid

   d. *nɑ-mɑirɑ-tyɑ*   I fished

Table 2, adapted from Mithun (1991), presents the distribution of person markers (Sets 1 and 2) according to the semantic features of eventhood, performance, control and

affect. As the table shows, Paresi presents an agentive-patientive system. Most of the verbs in Set 2 are intransitive verbs where semantically the participants have the feature [- control], and agency takes precedence over eventhood (events such as 'sleeping' and 'dying' are not performed or controlled by the participants and the verbs expressing these events take Set 2 markers).

Table 7: Distribution of markers in Paresi based on Mithun's (1991: 524) typology

	Paresi Set Marker

A. + event jump , run (exception directed motion verbs like go)
  + P/E/I
  + control
	Set 1

B. + event vomit
  + P/E/I
  - control
	Set 2

C. + event die
  - P/E/I
  - control
	Set 2

D. - event be prudent, be patient
  + P/E/I
  + control
	Set 1

E. - event be tall , be strong
  - P/E/I
  - control
  - affect
	Set 2

F. - event be sick , be tired
  - P/E/I
  - control
  + affect
	Set 2

In the analysis of verb classes based on agentivity, an exception that has no explanation is the classification of verbs of directed motion, which are eventive verbs but are marked as by the Set 2 markers. Schema 1 summarizes the distribution of person forms according to agentivity:

Schema 1: Distribution of pronominal forms
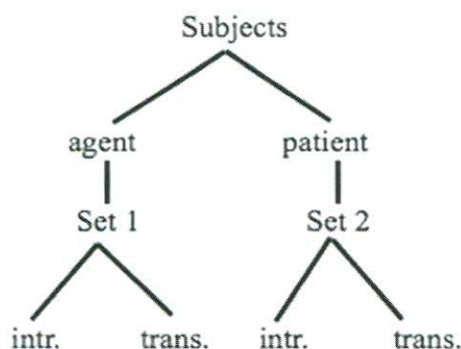
3. Contribution to Typology and Linguistic Theory

On the grounds of the linguistic facts discussed above we can conclude that the two languages compared display a person marking system which, although historically related, currently operate on the basis of partly different factors. While the use of Set 1 versus Set 2 person marking system is determined by the lexical aspectual notion of transient versus permanent meanings expressed by the verb in Apurin , the choice of Set 1 versus Set 2 person markers in Paresi bears strong association with degrees of agentivity or eventhood expressed by the verb. As happens with other verb split systems, there are some exceptions to the general patterns, especially in Paresi. Some of these exceptions have historical motivation, such as when verb derived from nouns in Paresi follow a non-verbal rather then the expected verbal pattern, thus in line with its pre-derivational status rather than with its post-derivational status; i.e. the derived verb follows the pattern of the noun it was derived from rather than that expected from the verb it derived into. Other exceptions involve verbs of directed motion. In fact, this particularity of directed motion verbs is not unique to Paresi.

In Apurin , verbs such as sa 'go', yna 'vir', and napa 'pass by' sometimes can also make use of Set 2 markers, although in the first two cases the only Set 2 marker accepted on the verb is the for third person.   Since it still is not clear what determines the use of Set 2 markers with directed verbs, we will only suggest that such verbs may form a separate class as far as their argument expression is concerned in some Arawak languages.   More investigation on such verbs is required.

As can be seen in Table 8, some formal similarities between the person markers remain.   When other Arawak languages are considered, it is clear that the Paresi person marking system is more likely to have undergone changes rather then the other way around. Differently from Apurin , Paresi preserved only one agreement suffix (object marker) for third person:

Table 8: Person markers in Apurin and Paresi

Number, Person & Gender		Set 1 Person Markers		Set 2 Person Markers	
		Apurin	Paresi	Apurin	Paresi
Sg.	1	*ny-*	*na-*	*-nu*	*no-*
	2	*py-*	*ha-*	*-i*	*hi-*
	3m	*y-*	*ø-*	*-ry*	*ø-*
	3f	*u-*		*-ru*	
Pl.	1	*a-*	*wa-*	*-wa*	*wi-*
	2	*hø-*	*za-*	*-i*	*xi-*
	3m	*y-...(-na)*	*ø- -ha*	*-ry*	*ø- -ha*
	3f			*-ru*	

The last question to address is whether there is any relationship between the facts that motivate the use of Set 1 versus Set 2 person markers in the two languages. The answer is yes. The transient-permanent distinction which underlies the Apurin person marking system is clearly associated with the notion of temporal stability used by Giv n to characterize the semantic nature of word classes, where nouns are typically time stable, contrary to verbs. Thus, when property words describing more temporary states in Apurin are marked in a manner similar to typical verbs (with Set 1 markers), they align themselves with more prototypical verbs. On the other hand, when property words describing more permanent states are marked in a manner less similar to prototypical verbs, what they are doing is to align themselves less with prototypical verbs and more with prototypical nouns - which are more time stable. Something analogous takes place in Paresi, but motivated by a different semantic property associated with nouns and verbs, namely agentivity or eventhood. This is precisely what the work of Mithun (1991) captures: prototypical verbs involve more agentivity and eventhood; while prototypical nouns involve lack of agentivity or eventhood.

Therefore, the relationship between the motivating factors which underly the verb split in Apurin and Paresi, i.e. transiency-permanency and agentivity/eventhood, is in that they constitute different semantic properties typical of the concepts encoded as nouns or verbs in the languages of the world, as represented in Schema 2:

Acquired/temporary, more agentive (verb-like)

↕

Inherent/Permanent, less agentive (noun-like)

Schema 2: Factors motivating the choice of person markers in Apurin and Paresi

Finally, the examination of the factors that motivate the use of different person markers in Apurin and Paresi suggests that, as important as it is to seek for a single motivating factor for the grammatical choices languages make in the encoding of different meanings, it is also important to seek for possible links between such choices.

4. Conclusion

In this paper we examined two types of verb splits in two related languages, Apurin and Paresi, based on cross-referencing person markers. In Apurin , such marking patterns are determined by the transiency-permanency lexical aspect of the verb. In Paresi, such marking patterns are determined by the degree of agentivity/eventhood of the verb. Finally, we established a relationship between transiency-permanency and agentivity/eventhood as prototypical ontological properties of verbs and nouns.

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i Part of the research that led to this paper was done with the support of a grant from the Wenner-Gren Incorporation for Anthropological Research. At the time this paper was written Facundes was a visitting professor at Thammasat University and on leave from Universidade Federal do Par , in Brazil, Brand o was a PhD candidate at the University of Texas at Austin, and Chagas was a PhD candidate at Universidade Estadual de Campinas, in Brazil.

ii Partial versions of this paper were presented at the meeting of the Society for Indigenous Languages of the Americas, as part of the 2010 winter meeting of the Linguistica Society of America, in Pittsburgh, and at the Thammasat International Symposium in Language and Linguistics, in Bangkok.

iii The following abbreviation are used in describing the data: M=masculine, F=feminine, SG=singular, PL=plural, VBLZ=verbalizer, O=object, PFTV=perfective, FUT=future, CAUS=causativizer, ATTR=attributive, POSSESSED=possessed, NMLZ=nominalizer, NEG=negative.

iv The forms represented above correspond to the variants that occur before non-palatal consonants. The vowel /□/, represented here as "y", is deleted before vowels other than /i/, and it becomes /i/ before palatal sounds, including /i/, in which case /n/ becomes /□/ (represented as "nh" in this paper); all the vowels that occur in these markers are nasalized before /h/ which then is deleted. Except for /□/, all vowels are also nasalized before other vowels. For the details on the complex morphophonemic variation of person markers, see Facundes (2000).