A note on the syntax of possession in Paraguayan Guaraní.

Maria Luisa Zubizarreta and Roumyana Pancheva
University of Southern California

Abstract
This article shows that the pronominal system of Paraguayan Guaraní provides evidence that 3P (null) possessor pronouns behave differently from 1P and 2P (overt) possessor pronouns and argues that this difference can be captured by a conjunction of hypotheses, namely, that the 3P possessor pronoun in Paraguayan Guaraní is negatively specified for Person feature and that its syntax is crucially different from that of 1P and 2P possessor pronouns. The null possessor pronoun is an nP (not a DP) that receives its interpretation via local binding. We furthermore argue that all inalienable possessor pronouns in Paraguayan Guaraní originate as an nP and that 1P and 2P pronouns must sideward-merge with a D and then merge as specifiers of higher heads (either in the nominal or verbal domain) to be syntactically realized as full DPs. We extend the analysis proposed for inalienable possessors to a certain class of transitive verbs (known as triforme verbs) as well as to nominal possessor constructions.

1. Introduction.

In a well-known paper, Benveniste 1971 proposed that 1P and 2P pronouns have a different morpho-syntactic status than 3P pronouns. While the former (to which we refer as +(Speech) Part(icipant) pronouns) are specified for a person feature, the 3P pronouns are not. We do not exactly adhere to this position because 3P pronouns may also enter into agreement relations with functional categories, but we do recognize that only 1P and 2P pronouns are positively specified for person, as proposed by Nevins 2007:
(1) 1P and 2P are specified as +Participant, with +/- Author feature distinguishing between the two. On the other hand, 3P is specified as –Participant, -Author.

Déchaine & Wiltschko (D&W) 2002 furthermore argued that the +Part pronouns may have a different syntax than the 3P pronoun. While the former are systematically full (referential) DPs, the 3P may be a smaller syntactic category – what they call a phi-P- that functions as a variable.

In the same vein, we will argue here that weak 3P pronouns in Paraguayan Guaraní, namely inalienable possessors and other internal arguments of the noun (referred to here as Poss arguments) are nPs, and not DPs. This proposal can be made compatible with (1) if we assume that only person features that are positively specified must be projected in syntax because these, we claim, are interpretable features. The 3P, being negatively specified for person values, may or may not be projected in the syntax. We assume that person features, when projected, are located on D. In other words, DPs are specified for person, but not nPs. The latter may be specified for number (and possibly gender, though gender is absent in Paraguayan Guaraní) but not for person. We argue that 3P weak (possessor) pronouns in Paraguayan Guaraní do not project person features: they are nPs (and not DPs). For this reason, they are dependent on the syntactic context for their interpretation, i.e. they function as bound variables. It follows that they do not directly enter into a person-agreement relation with a probe, only indirectly via their binder. As we will show, this allows us to give a more principled explanation for the very productive class of nouns known as “triformes” in Paraguayan Guaraní. (Triformes are roots whose initial consonant varies according to the grammatical context in which they appear.) It also allows us to unify the morpho-syntactic analysis of triforme nouns and triforme verbs with
that of triforme predicate nominals (including those traditionally analyzed as adjectives), all of them with the syntax of inalienable possession.¹ We show that the same analysis can be extended to (biforme) oblique pronouns.

2. Triforme nouns and the +Part vs. 3P distinction.

Paraguayan Guaraní has a class of nouns known as triforme because they have three forms, with distinct initial segments depending on the grammatical context. We see that in contexts of +Part pronominal Possessors, the noun is r-initial and in contexts of –Part pronominal Possessors, the noun is h-initial. The latter contrasts with regular inalienable nouns, in which the 3P Possessor pronoun is marked with the i-prefix; e.g. i.po ‘his hand’. Importantly, individual-denoting triforme nouns in Paraguayan Guaraní (there are also event-denoting triforme nouns, as we will see in section 3) are systematically inalienable nouns, intrinsically (as in the case of body parts) or by extension (as in the case of ‘house’).²

(1) tova ‘face’ (t-initial in nominal contexts)
   a. che rova
      1POSS face ‘my face’
   b. nde rova
      2POSS face ‘your face’
   c. hova
      3POSS face ‘his/her face’

Following the proposal put forth by Vergnaud & Zubizarreta 1992, Barker 2008, and others, Zubizarreta & Pancheva 2015 (Z&P from now on) assume that inalienable possessors are
generated in Spec of NP (or nP in more current terms), unlike alienable possessors which are generated in Spec of D_{POS}. The Poss argument is licensed via agreement by D_{POS} (comparable to English ‘s), either in Spec or a c-commanded position. (Possessors are marked in bold.)

(2)  
   a. \[ DP \; D_{POS} \; [\alpha P \; [nP]] \]  \hspace{1cm} \text{(alienable Possessor argument)}

   b. \[ D_{POS} \; [\alpha P \; DP \; [nP]] \]  \hspace{1cm} \text{(inlienable Possessor before raising)}

Z&P furthermore propose that +Part pronouns must move to the edge of D_{POS}, as shown in (3). (Underlines indicate a chain created via movement, with the head of the chain in bold.) It is argued there that the promotion of +Part pronouns is due to a more general phase-edge constraint that applies in person-centered languages (like Paraguayan Guaraní and Algonquinian) and which requires a positively p-specified D at the edge of the phase domain – with the possessed DP defined as a phase, along with vP and IP. We will not be concerned with the Person Constraint in this paper and refer the interested reader to the above-mentioned work.

(3)  \[ DP_{1/2P} \; [D_{POS} \; [\alpha P (DP_{1/2P}) nP]] \]  \hspace{1cm} \text{(inlienable Possessor after raising)}

Z&P propose the spell-out rule in (4) to account for the r-root vs. h-root contrast in triforme expressions. It is suggested there that the r-rule is triggered by heads of phase domains, i.e. by v (in the verbal domain) and by D (in a possessed nominal domain). Phases are defined as projections of heads with an external argument or an interpretable person feature. In Paraguayan Guaraní, I, v, possessed D, as well as oblique Ps (as we will see later) define phases because they either have an external argument and/or they carry an interpretable person feature.
(4) *Spell-out rule for triforme roots (the r-rule):*

If the head of a phase domain that contains a triforme root agrees with a DP at its edge, the root is spelled out as *r*-initial. Otherwise, the root is *h*-initial.

It is furthermore argued by Z&P that the *r*-root/*h*-root contrast is not about the morphological marking of +Part 1P and 2P pronoun vs. –Part 3P pronouns because full lexical DPs (for reasons independent of the above-mentioned Person-Constraint) must move out of the *n*-domain to the edge of *Dpos*. As predicted by the *r*-rule (4), full lexical Poss DPs also co-occur with an *r*-root (and not with an *h*-root), as seen in (5).³

(5) Maria * rova / *hova

Maria face

‘Maria’s face’

Z&P propose that full lexical Poss DPs must raise out of the *nP* and into the D-domain for mopho-phonological reasons: overt elements in the inflectional domain (i.e. between *I* and *v* and between *D* and *n*) must be clitics or affixes that can morpho-phonologically integrate with the lexical root. A null possessor, being phonologically invisible, may appear between *D* and *n*.

While that proposal is empirically correct, as far as we know, here we want to explore the other side of the null possessor pronoun, namely its syntactic and semantic properties. If, as suggested by D&W op.cit, +Part pronouns must be DPs because they are referential elements (like definite descriptions and names), then we can gain an understanding of the above patterns, modulo certain other assumptions.
Vergnaud 2013 (and in earlier unpublished work) proposed that there is a correlation in the complexity of merged constituents structures. Category V merges with categories of similar complexity, and so does N. Thus, an N Obj of V must move above VP in order to combine with a D and acquire the complex structure of a DP. Without going into the formal details of such a proposal, for our present purposes it suffices to retain the following entailment: within the nominal phrase, \( N(P) \) (or \( n(P) \)) can merge with \( N(P) \) (or \( n(P) \)) but crucially \( N(P) \) (or \( n(P) \)) cannot merge with \( D(P) \) because the latter has a more complex structure than the former. We will refer to such complexity constraint on Merge as the Vergnaud’s conjecture (or VC). If VC is correct, then we need to refine some assumptions put forth earlier and repeated in (6). Indeed, the conjunction of (6a) and (6c) is compatible with VC, but not the conjunction of (6a) and (6b).

(6)  

a. Inalienable Poss are generated in Spec of \( n \).

b. 1P and 2P pronouns are DPs, like names and definite descriptions (D&W 2002).

c. 3P pronouns are \( nP \)s.

To solve the contradiction, we propose that the inalienable Poss argument of the noun is generated initially in Spec of \( nP \) as an \( nP \) and that for it to acquire referential status as a +Part pronoun or a full lexical DP, it must first merge with \( D \) – call it “sideward-merge” (after “sideward movement” cf. Nunes 2001) – and then merge with \( D_{POS} \). We illustrate the sideward-merge operation in the derivation below; see in particular (7d). (Possessors are marked in bold).

(7)  

a. \( [n_1 \text{ NP}] \rightarrow nP_1 \) (inalienable nominal)

b. \( [nP_2 [nP_1]] \rightarrow nP_1 \) (inalienable possessed \( nP \) merges with possessor \( nP \))

c. \( [D_{POS} [nP_2 [nP_1]]] \rightarrow DP_{POS} \) (\( D_{POS} \) merges with inalienable possessed \( nP \))
d. [D nP₂] → DP (sideward-merge of +Part pron Poss with D)

e. [DP D_POS [nP₁]] (possessed DPs, with referential Poss (& QP Poss))

To summarize the above proposal, inalienable possessed DPs with referential Poss have the
structure in (8a) and inalienable possessed DPs with a 3P Poss have the structure in (8b).

Underlines indicate one or more members of a chain, with the one in bold as the head of the
chain.

(8)  a. [DP₁ [DP₂ D₂ [nP₂]] [D_POS [nP₂ [nP₁]]] (+Part Poss Pron, lexical Poss)

b. [DP₁ D_POS [nP₂ [nP₁]]] (3P Poss Pron)

We thus have an account of why +Part inalienable Poss pronouns, as well as full lexical
inalienable Poss, must move to the edge of D_POS. It is only there that they can merge with D
(according to VC) and become a full DP as required by (6b). We may now reformulate the r-rule
in (4) as in (9). The r-root is the morphological signature of a derivationally type category-
shifted argument, i.e. an nP argument that moves to become a DP.

(9) A triforme root is spelled out as an r-root if its argument is derivationally defined as a
chain DP-nP. Otherwise, it is spelled-out as an h-root. (The spell-out domain is the phase
domain).

D&W 2002 argued that on the interpretational level, DPs differ from nPs in that the latter, but
not the former, can function as variables. If that is the case, then the inalienable 3P Poss in (1c)
must have a binder in the linguistic context. Before we illustrate this asymmetry with regards to
pronominal Poss, we must briefly summarize the syntax of inflectional agreement in PG.
Z&P argue that clausal inflection in Paraguayan Guarani, as in the Algonquian languages, is divided into two types of paradigms: the *direct order* inflectional paradigm and the *inverse order* inflectional paradigm. In the direct order, the inflectional paradigm is constituted by a set of prefixes that reference the external argument; see table 1 below. In the inverse order the inflectional paradigm is constituted by weak Object pronouns; see table 2 below.

Table 1. *Direct Inflectional paradigm*

<table>
<thead>
<tr>
<th>External Argument</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1P</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SINGULAR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2PL EXCL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2PL INCL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2P</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3P</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. *Direct and Indirect Object strong pronouns.*

<table>
<thead>
<tr>
<th></th>
<th>1P</th>
<th>2P</th>
<th>3P</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>chève</td>
<td>ndève</td>
<td>ichupe</td>
</tr>
<tr>
<td>PL</td>
<td>ñandève (incl), orève (excl)</td>
<td>peême</td>
<td>ichupe.kuera</td>
</tr>
</tbody>
</table>

The direct order is found when the external argument is higher than the Object in the P(erson)-hierarchy stated in (10), while the inverse order is found when the Object is higher than the external argument in the P-hierarchy. The Object may be the internal argument of a transitive verb or the inalienable possessor of an incorporated inalienable nominal complement.

(10) a. +Part > 3P

b. 1P > 2P
Developing ideas in Ritter & Wiltschko 2014, Z&P argue that Infl in Paraguayan Guarani (like Infl in Algonquian) has an interpretable p-feature (but no interpretable Tense feature). Z&P further propose that in such languages, in conformity with the Person Constraint mentioned earlier, the interpretable p-feature triggers promotion of the Object pronoun in the inverse order, first to the edge of the v-phase (via phrasal movement) and then to the edge of the I-phase (via head movement); Infl in this case is spelled-out as a clitic (see the paradigm in Table 2).  

To illustrate, consider cases where the possessed inalienable nP has been incorporated into the verbal domain to form a larger predicate. The pronominal Poss paradigm is summarized in table 3 below.

Table 5. Possessor pronouns.

<table>
<thead>
<tr>
<th></th>
<th>1P</th>
<th>2P</th>
<th>3P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SG</strong></td>
<td>che</td>
<td>nde/nde</td>
<td>i- (regular nouns) / Ø (triforme nouns)</td>
</tr>
<tr>
<td><strong>PL</strong></td>
<td>ñande/ñane (incl), ore (excl)</td>
<td>pende/pene</td>
<td>i- (regular nouns) / Ø (triforme nouns)</td>
</tr>
</tbody>
</table>

Consider the examples in (11), where incorporation of the nP inalienable into the verbal predicate puts the Poss in the domain of v, making the Poss the formal Object of v (not unlike an ECM structure). In such construction, the Poss argument is also the affected argument (cf. Velázquez-Castillo 1996), which we attribute to the presence of an Applicative projection. More specifically, we assume that in these transitive inalienable structures, there is an Appl-v (located above the v that introduces the external argument) that licenses an applicative argument. The derivation of the Poss proceeds as follows. Recall that all inalienable Poss arguments originate as nPs in the Specifier of the inalienable nP. In the case of the 1P Poss in (11a) and 2P Poss in (11b) (the inverse order cases), the Poss nP first side-merges with D. The output Poss DP merges with
νP to meet the Person-Constraint, at which point it triggers the application of the r-rule (9). From there, Poss DP moves to the edge of the ν-ApplP where it acquires the Applicative th-role. It agrees with Infl and moves to the edge of Infl. As for the null 3P nP possessor in (11c) (the direct order cases), the Poss nP remains in situ and therefore the inalienable triforme nominal noun surfaces as h-initial. Recall that we proposed that the phonologically null nP Poss in (11c) lacks a paradigmatic person feature (and possibly a number feature as well); it only has a +animate feature. This null nP Poss receives its interpretation by virtue of being bound by the strong dative pronoun or dative lexical DP in (11c).8 On the other hand, the external argument is systematically a null pro across structures, located at the edge of ν in the inverse order and at the edge of I in the direct order and licensed by virtue of being bound to an overt (or covert) Topic.

(11) a. (Nde) che. rova (jo)héi (inverse order)
   (You) 1SG.POSS.face wash
   ‘You washed my face’

b. (Ha’e) nde. rova (jo)héi (inverse order)
   (He/she) 2SG.POSS.face wash
   ‘He/she washed your face’

b. (Che) a. hova (jo)héi ichupe / Pedro.pe (direct order)
   (I) 1PS.face wash to him/her/ to Pedro
   ‘I washed his/her face/ Pedro’s face’

Now, if indeed the null Poss lacks a person feature (and possibly a number feature) and its interpretation is dependent on the binder, it leaves open the possibility that its interpretation could be something else than a 3P. This is indeed the case in the direct order example in (12), where we
have a portmanteau prefix (PORT) that cross-references a 1P subject and a null 2P object. The PORT prefix *ro-* formally identifies the null Applicative Obj as 2SG and the PORT prefix *po-* formally identifies the null Applicative Obj as 2SG (see Z&P for discussion and a formalization of PORT prefixes in PG, as well as further detailed discussion of the structures with an incorporated inalienable complement). The null Applicative Obj binds the in-situ null nP Poss contained within the incorporated inalienable NP. Since these cases do not involve Poss-raising, the nominal inalienable root is *h*-initial.

(12) a. Che *ro.hova  (jo)hêi* (direct order)
   I PORT.face wash
   ‘I wash your.SG face’

   b. Che *po.hova (jo)hêi* (direct order)
   I PORT.face wash
   ‘I wash your.PL face’

To recapitulate, we have proposed that the null Poss is an *nP argument located in the Spec of the inalienable *nP. It lacks is negatively specified for a person feature and gets its interpretation by virtue of being locally bound to a DP. 9 We turn next to triforme verbs.

3. Triforme verbs as derived from triforme nouns.

Alongside a set of triforme (inalienable) nouns, Paraguayan Guaraní also has a set of triforme verbs; eg. *techa, recha, hecha* (sight, see); *tendu, rendu, hendu* (listen), *ta’arô, ra’arô, ha’arô* (wait); *teka, reka, heka* (search); *tenôi, renôi, henôi* (call), *topehýi, ropehýi, hopehýi* (sleep).10 The *t*-forms are unambiguously nouns: e.g. *O.me’ê chêve topehýi*, Lit: *It gives me sleep*, meaning ‘It makes me sleepy’. The *r*-root appears in the inverse order and the *h*-root appears in
the direct order, as exemplified in (13) and (14) below. In the inverse cases (13a) and (14a), the +Part Obj moves to the edge of vP to meet the Person-Constraint, and then to the edge of Infl. In the direct order cases, the prefix references the external argument and the Obj does not move (because the Person-Constraint does not require it to move). In the case of (13bi) and (14bi), the prefix re- references the 2P external argument and the in-situ Obj is a strong 3P pronoun. In the case of (13bii) and (14bii), we see the portmanteaux prefix ro-, which, as mentioned earlier, morphologically cross-references a 1P external argument and a 2SG Object. More precisely, in such structures the PORT prefix ro- formally identifies the null Obj as 2SG. In their counterparts in (13biii) and (14biii), the PORT prefix po- formally identifies the null Obj as 2PL.

(13) a. (i) (Nde) che recha (inverse order)
   (You) 1SG.see
   ‘You see me’

   (ii) (Ha’e) nde recha
         (S)he 2SG.see
         ‘(S)he sees you’

b. (i) (Nde) re.checha  ichupe (direct order)
   (You) 2SG.see her/him
   ‘You see him’

   (ii) (Che) ro.checha
         (I) PORT.see
         ‘I see you’

   (iii) (Che) po.checha
‘I see you all’

(14) a. (i) (Nde) che ra’arõ (inverse order)
    (You) 1SG.wait
    ‘You wait for me’

(ii) (Ha’e) nde ra’arõ
    (She/he) 2SG.wait
    ‘(S)he waits for you’

b. (i) (Nde) re.ha’arõ ichupe (direct order)
    (You) 2SG.wait3PS
    ‘You wait for her/him’

(ii) (Che) ro.ha’arõ
    (I) PORT.wait
    ‘I wait for you’

(iii) (Che) po.ha’arõ
    (I) PORT.wait
    ‘I wait for you all’

Z&P 2015 analyze the weak 1P and 2P pronoun in the inverse order with triforme verbal predicates as the internal argument of the verb sister to v, in parallel with the inverse order with predicates headed by regular (non-triforme) verbs. Here we propose a more elaborate alternative, namely that the 1P and 2P weak pronouns in the case of triforme verbs originate as
the Poss argument of a nominal complement of \(v\). We propose that, as in the case of the incorporated inalienable structures (11a-b), the Poss argument is first promoted to the edge of the \(v\)-phase and then to the edge of the I-phase.

Such an analysis is prompted by the existence of examples of event-denoting triforme nominal complement as in the examples below. Consider (15), where the clause is headed by an imperfective aspectual light verb \((oi)ko\) that takes a PP as complement \((vaka reká.pe)\). This PP complement is headed by a locative Prep (-\(pe\)) and an event-denoting nominal complement headed by the triforme noun \(teka/reka/heka\) ‘search’, which takes \(vaka\) ‘cow’ as an internal argument \((vaka reka ‘cow’s search’)\). To the extent that this argument originates in Spec of \(n\) and sideward-merges as a DP in Spec of \(D_{pos}\), the noun surfaces as an \(r\)-root.\textsuperscript{11} Note that the PP complement of \((oi)ko\) may may also denote a physical location, as illustrated in (16). This fact provides indirect support for the analysis of \(reka\) in (16) as denoting an abstract location.

(15) (Ha’e) \((oi)ko\) vaka reká.pe.

She/he 3SG.COP cow.POSS search.LOC

Lit. ‘(S)he is in the activity of cow-searching’

(16) a. (Ha’e) \((oi)ko\) Paraguay.pe

(She/he) 3SG.COP Paraguay.LOC

‘(S)he lives in Paraguay’

b. (Che) ai.ko che sý.ndi

(I) 1SG.COP 1SG.POSS mother.WITH

‘I live with my mother’

Other relevant examples, in which triforme nominal complements are event-denoting are given in (17) and (18). In (17), the main verb is the aspectual light verb \((ai)me\) that encodes a
delimited event and takes as its complement the nominal ra’aro (waiting). In (18), the main verb is the verb go that takes the nominal complement recha (sight) that expresses the purpose of the going (as encoded by the purpose suffix –vo).

(17) Ai.me Maria ra’arô.me
    1SG.COP Maria wait.PREP
    ‘I am waiting for Maria’ (lit. ‘I am in Maria’s waiting’)

(18) A.ha Maria rechá.vo
    1SG.go Maria sight.PURP
    ‘I am going to see Maria’ (lit. ‘I am going to the sight of Maria’)

We propose to extend the same syntactic analysis of the event-denoting nominal complement (15)-(17) to triforme transitive verbs like those in (13) and (14), with the difference that in the latter cases, there is no overt lexical verb, but simply a null v that merges directly with an event-denoting nP complement. These nPs are headed by a triforme noun that introduces a Poss argument that gets analyzed as the Object of v (as in the case of incorporated individual-denoting inalienable nPs discussed earlier). To illustrate, consider the derivation of (13ai) Che nde recha (inverse order). The Poss argument having the status of a DP-nP chain, the r-rule (9) applies at the vP phase (18b) and the root is spelled out as an r-root

(19) a.  [vP DP1 [ v [nP nP tesha] ]] \rightarrow sideward-merge of nP and D, and merge of output with vP
    b.  [vP [DP2 D nP] [vP DP1 [ v [nP nP tesha] ]]] \rightarrow merge of D Poss with I
    c.  [IP D I [vP [DP2 D nP] [vP ... ]]] \rightarrow merge of IP with Top
    d.  [TOP Ndei [IP [D che] I [vP [DP che] [vP DP] [vP v [nP [nP che] resha]]] ...]
We illustrate next the direct order cases, where the \( nP \) Poss argument does not sideward merge with D and does not undergo movement. Recall that in the direct order cases, the DP external argument is the highest in the P-hierarchy and therefore it agrees with I and moves to the edge of I. The in-situ Poss argument is a variable and its interpretation is dependent on the syntactic binder. We give the final output structures for (13bi) and (13bii) below, omitting the Applicative \( v \)-layer for simplicity sake. In (20a), the null Poss \( nP \) is bound by the 3P Applicative DP argument and in (20b), the null Poss \( nP \) is bound by the null 2P Applicative DP, which is formally identified by the \textsc{port} prefix. Since there is no Poss raising to the edge of the verbal phase, the \textit{r}-rule (9) does not apply and the root has \textit{h}-initial form.

\[(20)\]
\begin{align*}
\text{a.} & \, [\text{TOP} \, \text{Nde} \, [\text{IP} \, \text{D2SG} \, [\text{IRE} \, [\text{vP} \, \text{DP2SG} \, [\text{vP} \, \text{v} \, [\text{nP} \, [nP_i] \, \text{hesha}] \, [\text{Di} \, \text{ichupe} \, ...]]] \, \text{hesha}] \, \text{ichupe} \, ...]]] \\
& \, \text{‘Nde re.hesha ichupe’} \, (\text{You saw him/her}) \\
\text{b.} & \, [\text{TOP} \, \text{Che} \, [\text{IP} \, \text{D1SG} \, [\text{IRO} \, [\text{vP} \, \text{DP1SG} \, [\text{vP} \, \text{v} \, [\text{nP} \, [nP_i] \, \text{hesha}] \, \text{hesha}] \, \text{v} \, [\text{Di} \, \text{2P} \, ...]]] \, \text{hesha}] \, \text{2P} \, ...]]] \\
& \, \text{‘Che ro.hesha’a} \, (\text{I saw you}) \\
\end{align*}

We have reanalyzed “transitive” triforme predicates as a case of light \( v \) with an event-denoting \( nP \), where the Obj originates as the Poss argument of the \( nP \). What about “intransitive” triforme predicates? These do exist as well; e.g. \textit{tasè}, \textit{rasè}, \textit{hasè} ‘cry’, as illustrated in (20) below.\footnote{Essentially the same analysis proposed earlier for the transitive triforme cases can be extended to the intransitive triformes. The difference between the two is that in the case of transitives structures, the theta-role introduced by \( v \) and the one introduced by the nominal complement are assigned to two distinct arguments. On the other hand, in the intransitive cases, the object is the \( nP \) and it is raised to the edge of the verbal phase, thus the \textit{r}-rule applies and there is \textit{h}-initial form.}
as in the example below, the theta-role introduced by $v$ (= internal causer/experiencer) and the theta-role introduced by the nominal complement (=possessor) are assigned to one and the same argument. More precisely, in the case of the 1P and 2P Poss argument (21a-b), the Poss $nP$ that originates in the Spec of the nominal complement of $v$ sideward-merges with D and then the output structure merges with $vP$, picking up the theta-role introduced by $v$. These are cases of Poss-raising and the root is spelled out as an $r$-root. On the other hand, in the case of the 3P Poss $nP$, which does not undergo any further merging operation outside the incorporated $nP$, we would need to assume that $v$ introduces a DP external argument (the internal causer/experiencer) and that it binds the $nP$ Poss argument. Such cases are exemplified by (21c) and (22a). These are cases of Poss-control and the nominal root is spelled-out as an $h$-initial root. Compare furthermore the minimal pairs (22a) (a clause) and (22b) (a possessed nominal phrase). As just mentioned, the former is a case of Poss-control, with no Poss-raising (and therefore no $r$-rule application) and with the lexical DP as a topic that binds the in-situ Poss. On the other hand, (22b) is a case of Poss-raising from Spec of $nP$ to Spec of $D_{poss}$. The $r$-rule applies at the $D_{poss}$ phase, giving rise to the $r$-initial nominal root.

(21) tasē/ rasē/ hasē ‘cry’

a. (Che) che rasē

(1) 1SG.POSS cry

‘I cry’

b. (Nde) nde rasē

(You) 2SG.POSS cry

‘You cry’
c. (Ha’e) hasē
   (She/he) 3SG.POSS.cry
   ‘She/he cries’

(22) a. Maria hasē
   Maria.TOP 3SG.POSS.cry
   ‘Maria cries’
b. Maria rasē
   Maria.POSS cry
   ‘Maria’s cry’

In the next section, we extend the analysis proposed above for triforme intransitives to other verbal predicates with a possessed nominal complement.

4. Other predicates with inalienably possessed nominals.

In Paraguayan Guaraní, the stative predicates traditionally analyzed as predicative constructions are also Possessor constructions. These are exemplified below, with a morphologically regular root in (23) and a triforme root in (24). With regular roots, the marker of 3P Poss is the prefix i- and with triforme roots, the 3P Poss is null and the root is h-initial, as in the case of triforme nouns. This Poss construction applies across the board for statives and does not make a distinction between individual and stage-level predicates.

(23) pochy (angry), porã (pretty, good), vai (ugly, bad), puku (long), vate (tall), pohýi (heavy), tavy (fool), tarova (crazy), tuja (old), pyahu (new), arandu (intelligent, with good memory)
a. (Che) che pochy
   (I) 1SG.POSS angry
   ‘I am angry’

b. (Nde) nde pochy
   (you) 2SG.POSS angry
   ‘You are angry’

c. (Ha’e) i.pochy
   (s)he 3Poss. angry
   ‘She/he is angry’

(24)  tasy, rasy, hasy (ill or in pain); tesāi, resāi, hesāi (healthy), topehýi, ropehýi, hopehýi
      (sleepy); tory, rory, hory (happy, joyous); tetia’e, retia’e, hetia’e (vivacious, with good
      humor), te’ô, re’ô, he’ô (humid, wet) (The t-forms are unambiguously nouns.)

a. (Che) che rasy
   (I) 1SG.POSS ill/in pain
   ‘I am ill/in pain’

b. (Nde) nde rasy
   (You) 2SG.POSS ill/in pain
   ‘You are ill/in pain’

c. (Ha’e) hasy
   (she/he) 3SG.POSS. ill/in pain
   ‘She/he is ill/in pain’
Note that the same minimal contrast observed in (22) between the root in a clausal structure (with the lexical DP as topic) and the root in a nominal phrase (with the lexical DP as Poss) is found with stative predicates as well; see below.

(25) a. Maria hasy
    Maria.TOP  3SG.POSS.ill/in pain
    ‘Maria is ill/in pain’

b. Maria rasy
    Maria.POSS  ill/pain
    ‘Maria’s illness/pain’

It is natural to view the above stative predicates as nominals that denote abstract property-concepts (Francez and Koontz-Garboden 2015). The individual-denoting argument bears a possessor relation to these property-denoting nominals, on the one hand, and a relation of beholder of a state, on the other hand. We therefore propose to extend the analysis put forth for the eventive intransitives predicates rasẽ/hasẽ (cry) to the stative predicates in (23)/(25), except that in the context of such stative nominals, v assigns a “beholder” role (not a “doer” role) to the Poss argument.13

The same possessor construction is found with inalienable nominals that denote kinship relations (e.g. t.memby ‘to have a child’) or extended inalienable relations (e.g. hoga ‘to have a house/home ’).14

(26) ‘to have a (ill) child’
a. (Che) che memby (hasy)
   (I) 1POSS child (sick)
   ‘I have a (ill) child’

b. Nde nde memby (hasy)
   (you) 2.POSS child (sick)
   ‘You have a (ill) child’

c. (Ha’e) i.memby (hasy)
   (she/he) 3.POSS.child (sick)
   ‘You have a (ill) child’

d. Maria i.memby (hasy)
   Maria.TOP 3.POSS.child (sick)
   ‘Maria has a (ill) child’
   Cf. Maria memby (hasy)
   ‘Maria’s (ill) child’

(27) ‘to have a (faraway) house’

a. Che che róga (mombyry)
   I 1SG.POSS house (faraway)
   ‘I have a (faraway) house’

b. Nde nde róga (mombyry)
   You 2SG.POSS house (faraway)
   ‘You have a (faraway) house’

c. Ha’e hóga (mombyry)
   She/he 3SG.POSS.house (faraway)
‘She/he has a (faraway) house’

d. Maria hóga (mombyry)

Maria.TOP 3SG.POSS.house (faraway)

‘Maria has a (faraway) house’

Cf. Maria róga (mombyry)

‘Maria’s (faraway) house’

As noted in Velázquez-Castillo 1996, the possessor nominal construction exemplified above can be used to express the meaning of ownership (as in “I own a cow”), but not to express the more general meaning of custodial possession (as in “I have your cow”). To express the latter meaning, the verb (a)guereko (‘to have’) must be used, as illustrated in (28)-(29). Contrast those with examples with a body part, which give rise to an unambiguous inalienable interpretation; see (30)-(31). These facts provide support to the idea that the possessed nominal predicates encode the meaning of inalienability, modelled in terms of the syntactic structures discussed earlier.

(28) a. (Che) che vaka

(I) 1SG.POSS cow

‘I own cow’

b. *Che nde vaka

(I) 2SG.POSS cow

‘I own your cow’

(29) a. (Che) a.guereko che vaka (che róga.pe)

I 1SG.have my cow (in my house)
‘I have my cow (in my house)’

b. (Che) a.guereko nde vaka (che róga.pe)
I 1SG.have your cow (in my house)

‘I have your cow (in my house)’

(30) a. (Che) che akā ky’a.
(I) 1SG.POSS head dirty

‘My head is dirty’

b. *(Che) a.guereko akā ky’a

‘I have a dirty head’

(31) a. (Che) che.memby

‘I have children’

b. *(Che) a.guereko memby

‘I have children’

In the next section, we suggest that oblique pronouns in Paraguayan Guaraní also have the syntactic structure of inalienable possessed nominals.

5. Oblique pronouns as inalienable possessed nominals.

The oblique preposition in (32) (with its multiple shades of meaning) is a complex one: it consists of a biforme bisyllabic root (*rehe/hese*) preceded (obligatorily) by a weak pronoun. In line with the analysis put forth above, we propose to analyze these weak pronouns as a Poss pronoun in a nominal structure headed by the biforme nominal *rehe/hese*. Some example sentences are given in (33), which does not exhaust the shades of meaning of these oblique forms.
(32) *rehe/hese*: ‘at/about/because of’

a. che *rehe* (at/about/because of me)

b. nde *rehe* (at/about/because of you)

c. *hese* (at/about/because of him/her)

d. Maria *rehe* (at/about/because of Maria)

(33)  

a. *a.maña* nde *rehe* (I look at you)

b. *re.jú* che *rehe* (You come for me)

c. *a.poran*u *hese* (I ask about him)

d. *a.poran*u Maria *rehe* (I ask about Maria)

The account of *r*-root vs. *h*-root alternation can be generalized to these oblique pronouns by analyzing them as inalienable possessed nominal phrases (see below), which merge with an abstract oblique-Case-assigning preposition that carries an interpretable *p*-feature and therefore defines a phase. Following the nominal structures we proposed earlier for inalienable Possessors (see (2)-(4)), we propose the structure in (34a) for (33a-b)/(33d) and the structure in (34b) for (32c)/(33c). The former has an *r*-root because the Poss is a DP/nP chain that agrees with a PPOS and the latter has an *h*-root because it is the “elsewhere” case.

(34)  

a. [[DP D nP] [DPOS [nP [rehe]]]]

b. [DPOS [nP [hese]]]
We speculate that the meaning of the inalienable possessor relation in (33) is one of belonging to a class: \(nP\) belongs to the class of animate individuals. All pronouns in Paraguayan Guaraní are animates, whether overt or covert. Inanimates are referred to as ‘thing’ (=\(mba\’e\)). It is tempting to further extend the analysis of inalienable possessed nominals to the 3P strong Obj pronoun \(ichupe\), which we suspect is composed of the 3P Poss prefix \(i-\) (often dropped in spoken speech), a nominal root \(chu-\) and the differential object marker (the suffix –\(pe\)) that appears with all animate objects.

6. Conclusion.

In this paper, we have explored the proposal put forth by D&W 2002 that referential nominal phrases, nominal variables, and predicate nominals have different structural complexity, whereby NPs unambiguously function as predicates, DPs unambiguously function as referential arguments, and \(nP\)s may function either as variable arguments or as predicates. We combined this proposal with Nevins’s view of pronouns, whereby +Part pronouns are positively-specified with a person feature, while 3P pronouns are not. We furthermore assumed two conjectures: 1) A positively-specified p-feature must be projected on D. This entails that 3P, but not +Part pronouns, may function as \(nP\)s, i.e. as variables (1P and 2P pronouns may also function as variables if their person features are deleted; see note 5). 2) Vergnaud’s conjecture (VC), which entails that \(nP\) may merge with \(nP\), but not with DP. The combination of the above gives us the results that a Poss argument that originates in Spec of \(nP\) must move out in order to acquire a DP status (through sideward merge with a D, with the resulting DP merging as a specifier of D\(_{pos}\)). We used this result to explore the syntax of Poss arguments in Paraguayan Guaraní and the restatement of the \(r\)-rule that governs the complementary distribution of \(r\)-roots and \(h\)-roots in
Paraguayan Guaraní. Given our analysis, the $r$-root is a morphological reflex of the sideward movement of a Poss argument and the creation of a DP-$nP$ chain. The null possessor is an $nP$ (not a DP). The person feature being a property of D, the null Poss lacks person feature. Therefore, it depends on an external binder for its interpretation.

We extended this analysis from triforme inalienably possessed nominals to triforme verbal predicates, such as eventive *techa, recha, hecha* ‘sight/see’, and statives predicates that denote possession of property concepts, such as *tasy, rasy, hasy* ‘pain/ill’), which, we argue, are formed from an underlying possessed triforme nominals. Finally, we extended the same analysis to biforme oblique pronouns. Thus, we arrived at a view of Paraguayan Guaraní that is very much possessor-centric: more specifically, it has a productive set of structures in which the Obj (in the case of transitives) or the Subj (in the case of eventive intransitives) originate as the Poss argument of a nominal complement of a light $v$. On the theoretical side of things, the proposed analysis provides strong support for the view that +Part pronouns and -Part pronouns may have distinct syntax and featural properties, as well as different semantics.

References.


---

1 On the grammar of possession in Paraguayan Guarani within a functionalist/cognitive framework, see Velazquez-Castillo 1996.

2 Among triforme nouns, we find core inalienable nouns denoting body parts like those in (i) and inalienable relations (ii), as well as what can be considered inalienable nouns by extension as in (iii).

(i)  

(ii)  

(iii)  
While all triforme nouns are inalienable (intrinsically or by extension), it is not the case that all inalienable nouns belong to the triforme class, including vowel-initial ones such as *ahy’o* (throat) and *áva* (hair), among many others. These are inflectionally regular nouns; cf. the inalienable possessed nominals *i.j.ahy’o* (his throat), *hi.áva* (his hair) and the alienable possessed nominal *i.j.ajaka* (his/her basket). Possessor marker *i-* becomes *ij-* before stressless ‘a’ and *i-* becomes *hi-* before stressed ‘a’.

3 Because the *r*-form always surfaces in cases of argument promotion within the phase domain, Z&P suggest that the *r*-rule is the morpho-syntactic signature of DP-movement within the phase domain that contains a triforme root.

4 It is not clear that Paraguayan Guarani has lexical items for nominal quantifiers. It has “all” (*-veva*) but not “every” and borrows *alguno* (someone) and *ninguno* (noone) from Spanish. These two trigger the *r*-rule (*alguno roga* ‘someone’s house’, *ninguno roga* ‘noone’s house’, suggesting that they are QPs with a complex internal structure comparable to that of DPs.

5 Person features on 1 and 2 pronouns may be deleted and in this case such pronouns too may function as variables, as shown in Kratzer 2009.

6 Payne 1994 also classifies Guarani (and Tupi-Guarani more generally) as a direct/inverse system.

7 See also Bruening 2001, 2005 for a syntactic Obj promotion analysis of the inverse order in Passamaquoddy.
8 In the context of complex predicates, the verb johéi is abbreviated as héi, an abbreviation process that is common in compounds as well.

9 The challenge for proposed analysis comes from examples in which the inalienable is found in subject position, as in the examples below. We propose that the binder of the null Poss in (b) is a covert Topic.

(a) Maria/che/nde rova akointe i.kya
   Maria /my/your face always 3P.dirty
   ‘Maria’s /my/your face is always dirty’

(b) Hova akointe i.kya
   3P.face always 3P.dirty
   ‘His/her face is always dirty’

10 Often triforme eventive nouns and verbs are related to an individual-denoting triforme noun. Eg. Techa/recha/hecha (sight/see) is related to tesa/resa/hesa (eye). There are many complex verbs derived from tesa; e.g. techakuaa/rechakuaa/hechakuaa (understanding, understand), techambi/rechambi/hechambi (suspicion, suspect/guess), techaramo/recharamo/hesharamo (admiration, admire), techavoi/rechavoi/hechavoi (forboding, to have forboding), techagi/rechagi/hechagi (neglect). The transitive triforme verb tovasa/rovasa/hovasa (blessing/bless) is derived from the triforme noun tova/rova/hova ‘face’ and the verbal stem –sa ‘pass’, literally meaning ‘to pass the face’, which makes reference to the hand gesture used in the act of giving a bless.
Phonologically, triforme nouns are best represented as vowel-initial stems that are spelled-out with a C onset, where C is t-, r-, or h- depending on grammatical context. We ignore this detail here.

As mentioned in note 11, many transitive triforme verbs are derived from triforme nouns. This is also the case for many intransitive triformes, such as tesaráí/resaráí/hesaráí (to forget), made up of triforme noun tesa ‘eye’ and negative suffix –(a)i (lit. without eye).

Eg. Maria hesaráí i.memby.gui
    Maria forgot 3Poss child.Source Prep
    ‘Maria forgot her child’

Still other examples of intransitives derived from triforme nouns are tatati/hatati/ratati ‘smoke’ (related to triforme tata ‘fire’), tãimbiti, rãimbiti, hãimbiti ‘teeth-pressing’ and tãitarara, rãitarara, hãitarara ‘teeth-teetering’ (both related to tãi ‘teeth’), tendysyry, rendysyry, hendysyry ‘drool’ (related to tendy ‘saliva’).

We also note that it appears that most instances of triforme verbs are experiencers that undergo an internal bodily or mental change. Perhaps all intransitive triforme verbs are in effect of this type.

A reviewer asks if there is a semantic generalization that underlies intransitive eventive (intransitive) triformes and statives triformes such as those in () and (). If the former are indeed predicates in which the external argument is an experiencer (as suggested in note 11), then maybe there is indeed a semantic generalization that runs across both types of predicates,
namely that of “inalienability”, to the extent that an experiencer/experienced relation is by
definition an inalienable relation of a more abstract nature.

The case of triforme noun tupi’a/rupi’a/hupi’a (egg) is particulary illuminating. ‘Egg’ must
be specified with respect to a type: ryguasu rupi’a (chicken egg), ype rupi’a (duck egg), etc.
Thus, we can say (b) but not (a) and we can say (d) but not (c). (i.ype → ijype in (d))

(a) *Che che rupi’a ‘I have eggs’
(b) Che che [ype rupi’a] ‘I have duck eggs’
(c) *Ha’e [hupi’a] ‘She/he has duck eggs’
(d) Maria i.[ype rupi’a] ‘Maria has duck eggs’

The cases of (b) and (d) are relevant because they show that we need to refine our r-rule. We
may assume that ype rupi’a consists of an nP merged with a Class(ifier)P, and that the Poss
argument originates as an NP in Spec of NP (a predicate), it sideward-merges with n, and the
output nP (an argument) merges with ClassP. ClassP can then merge with an nP that introduces
its own Poss argument (e). This possessed nominal predicate can combine with v, giving rise first
to a complex verbal predicate (f) and eventually to the form in (b) (with a 1SG DP Poss
argument) and in (d) (with a 3SG nP Poss argument).

(e) [aP nP [ClassP [aP ype] [ClassP CL [NP [NP ype) [N rupi’a ]]]]]
(f) [aP [aP nP [ClassP [aP ype] [CL [NP [NP ype) [N rupi’a ]]]] v ]
To account for the $r$-root in (b) and (d), we would need to generalize the $r$-rule so that it also applies to cases of triforme roots with an argument that consists of the chain NP-$n$P.