

# Hiaki pronominals and the typology of deficiency

Heidi Harley and Alex Trueman

University of Arizona

## 1. Introduction

This paper combines descriptive and theoretical goals in an investigation of pronominal forms in Hiaki. The descriptive goals include: documenting a full range of Hiaki pronominals in varied discourse contexts and beginning an investigation into contrasts in the fused pronominal postposition paradigms. For a theoretical perspective, we consider the Hiaki data in light of the typological predictions of Cardinaletti and Starke (1999), which motivates us to begin an investigation of the status of the strong/weak/clitic distinction in Hiaki pronominals, in particular, identification of the properties of apparent 'in-between' forms..

## 2. Background

Hiaki is a Uto-Aztecan language of the Tara-Cáhitic subfamily, spoken in Sonora, Mexico, and in Arizona. It is also called *Yaqui*, or *Yoeme*, in many published sources<sup>i</sup>. Although the language is still being acquired by some children in Sonora, where there are some few thousand speakers, in the US there are only sixty or fewer native speakers remaining, all of them older adults.

This work, undertaken in collaboration with Maria Florez Leyva, from Barrio Libre, Tucson, and Santos Leyva, from Potam Pueblo, Sonora, Mexico, is part of a larger project<sup>ii</sup> which has a threefold purpose: a) to develop a teaching grammar of Hiaki b) to provide access to a database of web-based resources, and c) to investigate the pronominal and clitic systems

Hiaki is a relatively well-documented language, and there are a number of sources which include some description of the pronominal systems, such as: Fernandez et al. (2004); Guerrero (2004); Jelinek et. al (1998); Dedrick and Casad (1999); Molina, Shaul et al. (1999); Escalante (1990); Lindenfield (1973); and Johnson (1964). However, while these sources almost all provide pronominal paradigms, including some exemplification, and usually include some discussion of the subject and/or object clitics, there are some considerable inconsistencies between the accounts. For example, Molina, Shaul et.al (1999:301) give only first person forms of subject clitics, asserting that there are no clitic forms of the other persons, which contradicts several other sources and our own findings. Furthermore, there is little discussion to be found of those pronominal forms which host postpositional suffixes, which is an area in need of considerably more attention.

## 3. Cardinaletti & Starke 1999 on clitic, weak and strong pronominals

Cardinaletti and Starke (1999) is a study of pronominal variation from a particular theoretical viewpoint.<sup>iii</sup> They identify three classes of pronominals in Romance and other languages, which they propose as crosslinguistic universals. These classes are *strong*, *weak*, and *clitic* forms, which are differentiated by morphological, distributional, semantic and prosodic contrasts. The classes stand in a phonological, structural and

featural subset relationship – each is systematically reduced with regard to the next. Strong pronouns are the most fully specified, and clitics the least.

The characteristics of *strong pronouns* as identified by C&S are the following: a) they are phonologically big and independent; b) third person strong pronouns can only have human (or animate) referents; c) they distribute like normal DPs, with no special syntactic licensing requirements – they can be coordinate, focused, dislocated, and occur independently, and d) they can appear without linguistic antecedents (for example, they can be established ostensively).

The two other pronoun types, which are both classed as ‘deficient’ with regard to the features of strong pronouns are *weak* and *clitic* forms, and the properties of these forms are derived from their structural deficiencies, which restrict their contexts of appearance.

*Weak pronouns* a) can be (but don’t have to be) morphophonologically reduced with regard to strong pronouns; b) can allow nonhuman referents in the third person; and c) do not distribute like a normal DP – they cannot be coordinated, focused, or dislocated, they cannot occur independently, and they require a linguistic antecedent. They are not, however, positionally dependent as clitics are.

*Clitic pronouns*, like weak forms, a) are morphophonologically reduced with regard to less deficient pronouns; b) allow nonhuman referents; c) can’t be coordinated, focused, dislocated, or occur independently, and require a linguistic antecedent. Additionally, d) they are positionally dependent, and can have ‘special’ syntactic requirements.

Table 1 below provides a summary of the relevant properties of the three classes of pronouns, according to Cardinaletti and Starke (1999), to which we may compare the results of our examination of Hiaki pronominal properties.

	<b>Strong</b>	<b>Weak</b>	<b>Clitic</b>
<b>C&amp;S Claim</b>			
Morphophonologically reduced	-	-/+	+
Can have inanimate referent	-	+	+
Positionally dependent	-	-	+
Can be coordinated, focused, dislocated	+	-	-
Non-linguistic antecedents possible	+	-	-
Stand alone	+	-	-

Cardinaletti & Starke’s account of this distribution of properties follows the Mirror Principle intuition that ‘bigger’ phonology reflects ‘bigger’ syntax (and conversely, that smaller phonology reflects smaller syntax). Thus, strong forms contain more functional projections, which allow more features to be checked. Deficient forms necessarily then have unchecked features, because they lack the DP-internal functional projections which would be able to check them, and this results in their dependent syntactic behaviour. Deficient forms must move to certain functional projections in their clause in order to check their unchecked features. Strong forms, in contrast, are headed by a ‘nominal C°’, which makes them independent extended projections, within which all uninterpretable

features can be checked and valued; this C° can have a prepositional-looking realization, e.g. *a* in Spanish.

The lack of referential features, which in strong forms are introduced in higher functional projections like D°, mean that deficient forms must have a linguistic antecedent. Strong forms can occur without a linguistic antecedent, since they have a D° head with referential features, but require a predicative 'range' in order to refer (like a regular DP); this is provided by the human cognitive default [+human/animate] feature, which accounts for the inability of strong forms to have inanimate referents.

Cardinaletti and Starke assert that these three classes of pronoun types stand in a mutually exclusive 'blocking' relation that follows from one notion of Economy, according to which the syntax must use the least syntactic structure possible. Hence, deficient forms must appear wherever syntactically possible (i.e. when the form can get its features checked in the matrix clause). Strong forms should only be able to be used in contexts where feature-checking of deficient forms would be impossible (e.g. when the pronoun finds itself within islands such as coordination structures, focus structures, or when no linguistic antecedent is available etc.).

For our purposes, the strength of Cardinaletti & Starke's proposal is that it provides a clear set of diagnostics for examination of the variation in Hiaki pronominal forms. It has led us to consider pronouns in a very broad range of syntactic and discourse contexts, which allows us to flesh out our knowledge of the Hiaki paradigms, discovering pronominal forms and uses which had not previously been documented. Our discoveries about Hiaki may then provide evidence either in support of, or opposition to, Cardinaletti and Starke's theoretical claims.

#### 4. Hiaki Pronominal Paradigms

One of the most basic and uncontroversial of Cardinaletti & Starke's claims is that the more deficient the pronoun, the more morphophonologically reduced it is, frequently containing phonology which is a subset of that of the strong pronouns. The Hiaki nominative pronoun paradigm, shown in (1), illustrates that indeed, the subject clitic forms do generally appear to be fragments of their corresponding strong forms.

(1)	Nominative		
	Strong	Clitic	Other
1sg	<i>inipo</i>	= <i>ne</i>	<i>nee</i>
1pl	<i>itepo</i>	= <i>te</i>	<i>ite (tee?)</i>
2sg	<i>empo</i>	= <i>ee</i>	
2pl	<i>eme'e</i>	= <i>'em</i>	
3sg	<i>a'apo</i>	∅	
3pl	<i>vempo</i>	= <i>(i)m</i>	

The nominative paradigm also has a third set of first person forms, which we have labeled here as 'other'. These also appear to be a morphological subset of the strong pronouns, and would seem to be candidates for Cardinaletti and Starke's 'weak' pronoun class. However, to remain theoretically neutral as to their classification for the moment, we shall refer to these forms as 'lesser nominatives'.

(2)	Accusative		
	Strong	Clitic	Other?
1sg	<i>nee</i>		
1pl	<i>itom</i>		
2sg	<i>enchi</i>		
2pl	<i>enchim</i>		
3sg	<i>apo'ik</i>	<i>aa=</i>	
3pl	<i>vempo'im</i>	<i>am=</i>	

The accusative paradigm shown in (2) is interestingly reduced, in that clitic forms appear only in the third person, and the third plural clitic form is not an obvious subset of its strong form counterpart. There are no 'lesser' forms here, in any person.

The paradigm in (3) shows the set of pronominal forms which occur as the complements of postpositions. Hiaki postpositions are affixal, so the forms in the first column always appear bound. They can appear freely with (almost) all postpositions. However, a subset of postpositions can also optionally affix to strong forms of third person pronouns, as indicated in the second column below.

(3)	Complement of affixal postposition	
	All Ps	Some Ps
1sg	<i>ne-</i>	
1pl	<i>ito-</i>	
2sg	<i>e-</i>	
2pl	<i>emo-</i>	
3sg	<i>a(e)-</i>	<i>apoi(k)-</i>
3pl	<i>ame-</i>	<i>vempoim-</i>

#### 4.1 Examining the forms: a nominal complementizer?

One of the claims that Cardinaletti & Starke make is that strong pronouns contain an extra projection often headed by a preposition-like element, which they term a "nominal complementizer". Their example is the Italian dative, where the strong form is literally composed of the weak pronoun (*loro*) plus the morpheme 'a' – *a loro*.

The *-po* syllable, which is evident in most of the strong nominative pronouns in (1), is homophonous with a common postposition *-po*, meaning 'at/in/for'. An example of *-po* as a postposition can be seen in (4). In addition, *po* is sometimes seen introducing irrealis complement clauses as an apparent complementizer in certain (postposed) clauses in (5):

(4) Heidi Tucson-**po**      woi mamni      wasuktia-**po**      ho'a-k  
 Heidi T-at                  two five                  year-at                  live-prf  
 "Heidi has lived in Tucson for ten years."

(5) Jason aapoik      Hose-ta aa mahta-ii'aa                  koowi-m aa      sua-ne-'e-**po**      vetchi'ivo  
 Jason him.acc Jose-acc 3sg teach-want                  [pig-pl 3sg      kill-irr-EV]<sub>VP</sub>-at for  
 "Jason wants him to teach Jose to kill pigs"

## 5. Cardinaletti and Starke's claims: Nominative and Accusative paradigms

Next we turn to an examination of Cardinaletti & Starke's claims as they pertain to the nominative and accusative paradigms. For each claim, we give examples and discuss whether the claim is borne out or not in Hiaki.

### 5.1 Reference to non-human antecedents

C&S claim: Strong pronouns (including third person ones) cannot refer to nonhuman (or inanimate) entities; when referring to such entities, deficient forms must be used.<sup>iv</sup>

#### (6) Nominative strong pronoun

- a. Mesa-po=**im** mane-k.  
 table-on=3plNOM sit.container-PRF
- b. \***Vempo** mesa-po mane-k  
 3plS table-on sit.container-prf  
 "They were standing on the table." (bottles)

#### (7) Accusative strong pronoun

- a. Nee mesa-po **aa=** mana-k.  
 1sgNOM table-on 3sgACC= put.container-PRF
- b. \*Nee mesa-po **aapoik** mana-k  
 1sgNOM table-on 3sgACC put.container- PRF  
 "I put it on the table."

In both the nominative and accusative, we see evidence that clitic forms must be used with inanimate third person referents (6a, 7a), and that strong forms are ungrammatical in these contexts (6b, 7b), which is consistent with Cardinaletti & Starke's claim. It may be worth noting, however, that although their phrasing suggests that deficient forms must be used for any *nonhuman* referent, in Hiaki, the relevant distinction is simply animacy, not humanness.

### 5.2 Distribution: Strong pronouns like full DPs, deficient pronouns not

#### 5.2.1 Unmarked argument positions

C&S claim: Strong pronouns distribute like full DPs, but clitic pronouns appear in dependent positions. Weak pronouns are not expected to display positional dependency.

Hiaki has a basic unmarked constituent order of SOV, which is exemplified with full DPs in (8). As predicted, the strong pronouns behave like DPs and appear in the same SOV configuration (9).

- (8) Maria uka uusi-ta ania  
 Maria the.ACC child-ACC help  
 "Maria is helping the child."
- (9) Empo vempo'im ania  
 2sgNOM 3plACC help  
 "You help them!"

Clitics, however, are positionally dependent (again, this is unsurprising, since this dependence is one of the key characteristics of cliticness under any definition). Subject clitics in Hiaki typically appear in 2<sup>nd</sup> position, as shown in example (10) and (11), while the third person accusative clitics are procliticized to the verb (11).

(10) Vempo'im='e            ania  
       3sgACC=2plNOM        help  
       “You help them”

(11) Am=ania='e  
       3plACC=help=2sgNOM  
       “You help them”

Those forms which we are calling ‘lesser nominatives’ seem to behave like strong pronouns in this regard, occurring initially in an SOV configuration and displaying no obvious dependencies.

(12) Nee            Jason-ta        mango-ta        miika-k  
       1sgNOM        Jason-ACC        mango-ACC        gave-PRF  
       “I made Jason a gift of the mango.”

### 5.2.2 Coordination

C&S claim: Strong pronouns can be coordinated, deficient forms cannot.

Both strong and clitic Hiaki pronominals behave as Cardinaletti & Starke predict: strong pronouns are readily coordinated (13-14), whilst clitic forms in the same context may not be (15-16).

(13) *Strong nominative forms*

Speaker A: Haisa empo tuka            tekipanoa-k?  
               Q     2sgNOM yesterday        work-PRF  
               “Did you work yesterday?”

Speaker B: Heewi, Karmen intok **inepo** ofisina-po    nau    aane-n.  
               Yes, Carmen and I 1sgNOM office-in    together do-P.IMF  
               “Yes, Carmen and I were at the office together.”

(14) *Strong accusative forms*

Speaker A: Haisa Karmen tuka            tekipanoa-k?  
               Q     Carmen yesterday work-PRF  
               “Did Carmen work yesterday?”

Speaker B: Heewi, ofisina-po=ne    Peo-ta    intok    **apo'ik**    vicha-k  
               Yes, office-at=1sgNOM Pete-ACC and    3sgACC    see-PRF  
               “‘Yes, I saw Pete and her at the office.”

(15) *Clitic nominative forms* (Cf. dialog in (13))

\*Heewi, Karmen into=**ne**            ofisina-po    nau    aane-n.  
               Yes, Carmen and=1sgNOM office-at    together do-P.IMPF  
               “‘Yes, Carmen and I were at the office together.”

(16) *Clitic accusative forms* (Cf. dialog in (14))

\*Heewi, ofisina-po=ne Peo-ta intok **aa=** vicha-k.  
Yes, office-in=1sgNOM Pete-ACC and 3sgACC=see-PRF  
"Yes, I saw Pete and her at the office."

The lesser nominative forms are also able to be coordinated, behaviour which is more like that of strong pronouns than deficient ones, providing a challenge for any attempt to fit these forms into Cardinaletti & Starke's 'weak' pronominal category.

(17) *Lesser nominative forms*

Tuuka **nee** into Alejandra nau savu-tua-wa-k  
Yesterday 1sgNOM and Alexandra together soap-CAUS-PASS-PRF  
"Yesterday Alex and I got scolded"  
(Literally: "...were caused to have soap.")

5.2.3 Focusing/modification

C&S claim: Strong pronouns can be focused with focus particles like *only*, *even*, like full DPs; deficient pronouns cannot.

Again we see Cardinaletti & Starke's predictions borne out for strong forms, which can be focused (18-19) and for clitics, which cannot (20).

(18) *Nominative strong form*

**Inepo** huni'i aa=hu'uneiya  
1sgNOM even 3sg=know  
"Even I know it."

(19) *Accusative strong form*

Aapo **vempo'im** huni'i oro choki-ta maka-k.  
3sgNOM 3plACC even gold star-ACC give-PRF  
"She gave even them a gold star."

(20) *Nominative clitic form*

\*Huni'i=**ne** aa= hu'uneiya  
Even=1sgNOM 3sgACC=know  
"Even I know it."

We have not yet attempted to elicit accusative clitic forms in this context. Again, however, the lesser nominative forms behave more like strong forms than deficient ones in being able to be focused in this way.

(21) *Lesser nominative forms*

- a. **Nee** huni'i aa= hu'uneiya  
1sgNOM even 3sgACC=know  
"Even I know it."
- b. **Ite** huni'i aa= hu'uneiya  
1plNOM even 3sgACC=know  
"Even we know it."

#### 5.2.4 Dislocation and Doubling

C&S claim: If full DPs can be dislocated in the language, so can strong pronouns; deficient pronouns cannot.

There is evidence in Hiaki that nominative pronouns can be doubled (data in (22-23) from Guerrero (to appear)) – these might be considered examples of left-dislocation of a strong pronoun, which is then doubled by a coreferential second-position clitic:

(22) **Inepo** = ne            kaa    in        haboli-ta            apola-ik        su'utoha-Ø.  
 1sgNOM=1sgNOM        NEG    1sgGEN grandfather-ACC alone-acc    leave-PRES  
 'No, I cannot leave my grandfather alone.' (Buitimea 4: 63)

(23) **Itepo**            into= te            kaa    aman    kate.  
 1plNOM and=1plNOM NEG    there    go.PL  
 'And for us, we don't go there.' (Hilario: 7)

We can say little more about this at the moment; we currently do not have data on whether lesser nominative forms can also be dislocated/doubled in this way.

Full DPs, both nominative and accusative, can also be right-dislocated when they are topical; accusative DPs are always doubled with a clitic pronominal in main clause.

(24) (From the middle of a narrative entitled *Bunny and Skinny Coyote*)  
 Hiva **aa**=            vaiatta'a    tea    uu        Taavu uka        Wo'i    Wakila-ta  
 always 3sg ACC =fool.RED    QUOT the        bunny the.ACC coyote skinny-ACC  
 "Bunny kept fooling Skinny Coyote."

Again, we unfortunately have not yet collected data on whether strong pronouns can also be right-dislocated and doubled, although Cardinaletti & Starke's typology predicts that this should be possible.

#### 5.2.5 Linguistic vs. ostensively identified antecedent

C&S claim: Deficient pronouns must refer to an antecedent established linguistically in the discourse, hence, they cannot be used ostensively or independently. In contrast, strong pronouns need not have a linguistic antecedent, and can be used ostensively.

(25) Speaker A:    Havee veva            huka lionok-ta nate-ne?  
                           Who then            the.acc prayer-acc start-fut  
                           "Who will start the prayers?"

Speaker B (pointing): Vempo.  
                                   3pl  
                                   Them.

In a context such as answering a question, as in (26), a pronoun may be used without an explicit linguistic antecedent established in the discourse. In Hiaki, as we see in (26b), a strong pronoun is predictably acceptable in this context, and may be used as the sole answer, unsupported by further linguistic structure. Interestingly, the lesser nominative form is not acceptable standing alone as a sole answer to a question, but it *is* acceptable without a linguistic antecedent, so long as it is placed within a clausal context (26c).



- (26) a. *(Context)*  
 Speaker A: Havee-sa tahkaim nu'upa-vae?  
 Who-Q tortilla bring-INTEND  
 "Who is going to bring the tortillas?"
- b. *Strong form*  
 Speaker B: Inepo.
- c. *Lesser nominative*  
 Speaker B: \*Nee.  
 Nee nu'upa-vae.  
 1sgNOM bring-INTEND

### 5.3 Blocking

C&S claim: Deficient pronouns should be used whenever possible; when it is possible to use a deficient form, the strong pronouns should be impossible/ill-formed.

Although many of Cardinaletti & Starke's predictions with respect to strong vs. clitic pronominals have been (more or less) borne out in the Hiaki data thus far, this particular claim is clearly not. Example (27) shows that an answer using either a clitic or a strong form is equally acceptable – there is no blocking effect present. The choice between clitic or strong form in this and similar constructions seems quite free; our consultants assert that the choice is driven by discourse/social context, with full forms feeling a little more 'formal' than reduced forms.

- (27) a. *Context*  
 Speaker A: Haisa Anabel intok Irene Lunehtuk tekipanoa-k?  
 Q Anabel and Irene Monday work-PRF  
 "Did Anabel and Irene work on Monday?"
- b. Speaker B: E'e, Maatehtuk=**im** tekipanoa-k  
 No, Tuesday=3plNOM work- PRF  
*or* "No, they worked on Tuesday"
- c. Speaker B: E'e, **vempo** Maatehtuk tekipanoa-k  
 No, 3plNOM Tuesday work- PRF

## 6. Pronouns with postpositions: Absence of strong/deficient contrast?

Hiaki marks DPs with affixal postpositions ((4) reproduced here as (28)).

- (28) Heidi Tucson-**po** woi mamni wasuktia-**po** ho'a-k  
 Heidi T-at two five year-at live-prf  
 "Heidi has lived in Tucson for ten years."

As mentioned above, there is a special set of bound pronominal forms which appear with these affixal postpositions. Some postpositions can additionally be suffixed to strong third person forms; others are categorically ungrammatical with strong forms.

(29)	All Ps	Some Ps	(=3) above)
1sg	<i>ne-</i>		
1pl	<i>ito-</i>		
2sg	<i>e-</i>		
2pl	<i>emo-</i>		
3sg	<i>a(e)-</i>	<i>apoi(k)-</i>	
3pl	<i>ame-</i>	<i>vempoim-</i>	

Therefore, with at least some postpositions we see a kind of strong/clitic contrast in the third person, and can test Cardinaletti & Starke's claims with regard to them.

### 6.1 Reference to non-human antecedents

The bound third person pronominal complements of postpositions, like regular clitic pronominals, can have either animate or inanimate referents (30), (31), (32); however, strong forms can only have animate referents (31), (32), which mirrors the predicted patterns that we saw in the nominative/accusative paradigms.

(30) Abwe, oovva-m      **ae**-t      mo-monto-wa      hunakveha      bwah-ne  
 well coal-PL      3sg -on RED-pile-PASS      then      cook-FUT  
 "Well, place the coals on it and then it will cook."

(31) a.      **Ame**-naat      aa=mana  
 3pl-beside      3sgACC-put  
 b.      \***Vempoim**-naat      aa=mana  
 3plACC-beside      3sgACC=put  
 "Put it beside them."      (them=houses; it=ramada)

(32) a.      **Ame**-naat      yehte-k  
 3pl-beside      sit-PRF  
 b.      **Vempoim**-naat      yehte-k.  
 3plACC-beside      sit-PRF  
 "He sat beside them."      (them = certain people)

### 6.2 Positional dependence

Only one pronominal+postposition form (so far) seems to exhibit any positional dependence. The form is *a-u*, '3sg-to', and its apparent dependence is variable. First, consider a non-dependent form like *a-mak*, '3sg-with'. Speaker B's possible responses in (33) show that *amak* exhibits no particular dependence on the verb, since positional adjuncts such as *aman* 'there' may intervene between the PP and the verb.

(33) Speaker A:  
 Haisa empo tuka      ofisina-po      Mercedes-ta-mak      eteho-k?  
 Q      2sgNOM yesterday      office-at      Merceces-ACC-with      speak-PRF  
 "Did you talk with Mercedes at the office yesterday?"

Speaker B:

Heewi, tuuka =ne aman **aa-mak** eteho-k.  
Yes, yesterday=1sgNOM there 3sg-with speak-PRF  
*or*

Heewi, tuuka =ne **aa-mak** aman eteho-k.  
Yes, yesterday=1sgNOM 3sg-with there speak-PRF  
"Yes, I talked with her there yesterday."

In the same context, *a-u* '3sg-to', is positionally restricted – *aman* may not intervene between the PP and the verb.

(34) a. Speaker A:

Haisa empo tuka ofisina-po Mercedes-ta-u nooka-k?  
Q 2sgNOM yesterday office-at Merceces-ACC-u talk-PRF  
"Did you talk to Mercedes at the office yesterday?"

b. Speaker B:

Heewi, tuuka =ne aman **a-u** nooka-k.  
Yes, yesterday=1sgNOM there 3sg-to talk-PRF

c. *but not*:

\*Heewi, tuuka =ne **a-u** aman nooka-k.  
Yes, yesterday=1sgNOM 3sg-to there talk-PRF  
"Yes, I talked with her there yesterday."

In author Harley's experience, *a-u* acts like a preverbal clitic, similar to accusative third person clitics. However, we have recently elicited some data which proves that this is not always the case. In (34) we see a direct object DP intervening between *a-u* and the verb.

(35) *Au* not always positionally dependent!

Tuuka =ne **a-u** aapa-ta toha-k  
Yesterday=1sgNOM 3sg-to harp-ACC take-PRF  
"I took him the harp yesterday"

### 6.3 Coordination

In general, all pronominal+postposition forms can be coordinated, although the postposition must be repeated in the other conjunct, suggesting that these are coordinated PPs, rather than coordinated pronouns. Even when it is available, the strong/clitic distinction is irrelevant in this context.

(36) Nee Jose-ta-mak into **apoi-mak** eteho-k  
1sgNOM Joe-ACC-with and 3sgACC-with speak-PRF  
*or*:  
Nee Jose-ta-mak into **aa-mak** eteho-k.  
1sgNOM Joe-ACC-with and 3sg-with speak-PRF  
"I spoke with Joe and her."

Once again, only *a-u* exhibits failure to coordinate, and again, only variably; in the same contexts where it must appear preverbally, as in (34c) above, it cannot be coordinated

(36). When placed in the context in which it did not need to appear preverbally, in (35) above, however, *a-u* can indeed be coordinated (37):

(37) Nee            Jose-ta-u        into **apoik-u** eteho-k  
 1sgNOM        Joe-ACC-to      and 3sgACC-to speak-PRF

*but not:*

\*Nee            Jose-ta-u        into **a-u**        eteho-k  
 1sgNOM        Joe-ACC-to      and 3sg-to        speak-PRF  
 "I spoke to Joe and him/her."

(38) *But!*

Tuuka    =ne            Jose-ta-u        into a-u        aapa-ta        toha-k  
 Yesterday=1sgNOM    Jose-ACC-to      and 3sg-to        harp-ACC        take-PRF  
 "I took Joe and him the harp yesterday"

#### 6.4 *Focusing*

Pronominal+postposition forms can be focused with focus particles, regardless of whether there is a strong/clitic contrast:

(39) (Nee chea            kia    vato'i) taa    **ne-mak**        huni'i eteho-k.  
 1sgNOM really        just    person but    1sg-with        even    speak-PRF.  
 ("I'm just an ordinary person) but (he) spoke with even me!"

(40) ...taa aapo            **vempoime-u**    ket    noite-k  
 ...but 3sgNOM        3plACC-to      also    visit-PRF  
 ...taa aapo            **ame-u**        ket    noite-k  
 ...but 3sgNOM        3pl-to        also    visit-PRF  
 "...but she also visited them."

#### 6.5 *Doubling*

Extrapolated postpositional DPs are doubled by a pronominal+postposition form in the preverbal field, which parallels the behaviour seen with accusative DPs, which must also be doubled by clitics (see example (24) above).

(41) (*From a narrative:*)  
 Hunakveha    inien    **a-u**            hia    uu Wo'i Wakila        **Tavu-ta-wi**  
 then            this.way 3sg-to        say    the Coyote Skinny    Bunny-ACC-to  
 "Then Skinny Coyote said to Bunny..."  
 (Lit: "Then he spoke to him this way, Skinny Coyote to Bunny:")

However, we have yet to test whether pronominal+postposition forms, either strong or clitic, can themselves dislocate, right or left

#### 6.6 *Preliminary Pronominal+Postposition speculations, puzzles*

Thus far, with respect to most tests, the pronominal + postposition complex behaves like a strong form. Where there is a contrast between bound pronominals and full pronominals with a postposition, the only test which distinguishes them is the animate referent test.

The only apparently clitic-like Pron+P form is *a-u* ‘3sg-to’, though its behavior is puzzlingly inconsistent.

There are a number of puzzles remaining to be tested for Pron+P combinations:

- a. Can pronominal+postposition combinations alone serve as the answer to a question, ie, are they permissible with no linguistic antecedent?
- b. Can first and second person weak or strong forms have a postposition attached? (Forms ending in *-po*: no. Weak forms?)
- c. Is *a-u* a clitic, or independent word? Or are there homophonous forms?
- d. Can other postpositional phrases (besides those with *-u/-wi*) be doubled?
- e. Can strong pronouns with postpositions be extraposed (and doubled)?

Additional interesting questions arise pertaining to the case-marking of complements to postpositions. The postposition *-po* affixes to full DPs in their nominative (bare) form. Others, such as *-t*, *-u*, and *-mak* variably take full DPs in the accusative form (marked with the suffix *-ta*, see (40) above, e.g.). We do not yet have complete information about the case forms of the DP complements of the remaining Hiaki postpositions.

With regard to the bound pronominal complements of postpositions, the third person forms look like the (clitic) accusative pronouns with *-e* suffixed. However, since the accusative clitic paradigm is so reduced, there is not a lot of evidence available.

Strong pronominals with postpositions seem to vary—some are fully marked accusative (42b), some not. The pronominal is missing the accusative suffix *-k* in (42a), though this may be for phonotactic reasons. Again, further testing is needed to pin down the source of this variation.:

- (42) a. Nee                    Jose-ta-mak    into **apoi**-mak            eteho-k (=36) above)  
           1sgNOM            Joe-ACC-with and 3sg.ACC[?]-with    speak-PRF
- b.        Nee                    Jose-ta-u into **apoik**-u            eteho-k  
           1sgNOM            Joe-ACC-to and 3sg.ACC-to    speak-PRF  
           "I spoke with/to Joe and him."

This is similar to demonstratives when they occur with postpositions, which are sometimes overtly marked accusative (indicated with the suffix *-ka*), and sometimes not:

- (43) a. **Hunuka**-naat    =ne                    ho'ate-vae  
           That.ACC-beside=1sgNOM    live-going.to  
           "I'm going to live beside that!"
- b.        **Hunua**-naat    kitte='e  
           That-beside    stand=2sgS  
           "Stand beside that!"
- c.        Merehilda    **hunua**-mak    hiapsa.                    \**hunuka-mak*.  
           Merehilda    that-with            cohabits.  
           "Merehilda lives with that one!"
- d.        Uu loktor        **huna**-u            noite-k.  
           The doctor    that-to            visit-PRF  
           "The doctor visited that one."

## 7. Conclusions

The variation in Hiaki pronominal forms is complex, and many questions still remain. The contrast between strong and clitic forms behaves largely as predicted by Cardinaletti & Starke's typology. However the forms which we have described as 'lesser nominatives' do not behave either like strong forms, or like Cardinaletti & Starke's 'weak' forms. Like weak forms, they are phonologically reduced, and cannot stand alone outside of a sentential context. However, like strong forms, they are not positionally dependent, they can be coordinated and focused, and they can occur without a linguistic antecedent.

Our findings so far are summarized in the table below:

	Strong	"lesser nominative"	Clitic
Morphophonologically reduced	-	+	+
Can have inanimate referent	-	n/a	+
Positionally dependent	-	-	+
Can be coordinated, focused, (dislocated)	+	+	-
Non-linguistic antecedents possible	+	+	-
Stand alone	+	-	-

### 7.1 Other pronominal distribution proposals

Finally, there are some other avenues of investigation that may be undertaken in order to shed further light on Hiaki pronominal distribution. For instance, Choi (2009) argues that 1st and 2<sup>nd</sup> person pronominal determiners form a paradigm with demonstrative forms. Strong pronouns in Hiaki can behave as pronominal determiners as seen in (44-45):

- (44) **Eme'e** uusi-m          hakun='em          yeu-ean  
 2pl child-pl          somewhere.else=2plS play-should  
 "You kids, you should play somewhere else."

- (45) **Itepo** Hiaki-m          si'imekuchi          im Arizona-po tekipanoa-su-k.  
 1pl Hiaki-pl          everywhere here Arizona-in work-comp-prf  
 "We Hiakis used to work all over Arizona."

If we conclude that strong pronouns are in fact demonstratives marked for person, that would explain the gap in the third person inanimate strong pronominal paradigm; the regular (third-person) demonstratives occupy that cell.

Wiltschko & Déchaine (2002) propose a different pronominal typology for free pronouns only, in which they demonstrate that languages vary as to whether pronominal forms can be predicates. Hiaki strong pronominals can definitely be predicates:

- (46) Inepo **inpo**-tu-vae  
 1sg 1sg-BE-INTEND  
 "I'm just gonna be me!"

It is unclear, however, whether the behavior of strong pronominals as predicates is predicted in their approach to relate to the distribution of clitic or weak forms in the pronominal paradigm; we leave this as an open question here.

In short, much remains to be done to arrive at a full characterization of this complex and fascinating pattern of pronominal data in Hiaki. We hope, however, to have provided at least some basis for our preliminary conclusions, and established concrete directions for future work on the topic.

### Notes

<sup>i</sup> *Hiaki*, which reflects the pronunciation and orthographic conventions used by the Pascua Yaqui tribe, is employed throughout this paper in accordance with the preferences of those Hiakis with whom we collaborate on this project.

<sup>ii</sup> Project funded by an NSF Linguistics grant with stimulus funds (American Recovery and Reinvestment Act), project BCS-0843898.

<sup>iii</sup> Other pronominal typologies, like that in Déchaine and Wiltschko (2002) or Harley and Ritter (2002), only consider free pronominal forms, and do not make claims about structural differences between free and clitic pronouns.

<sup>iv</sup> Of course, demonstratives could also be used instead.

### References

- Cardinaletti, Anna, and Michal Starke. 1999. "The typology of structural deficiency: A case study of three classes of pronouns". In *Clitics in the languages of Europe*, ed. by Henk van Riemsdijk, 145–233. Berlin: Mouton.
- Choi, Jae Hoon. 2009. *On the so-called 'Pronominal Determiners'*. Ms. The University of Arizona.
- Déchaine, Rose-Marie, and Martina Wiltschko. 2002. Decomposing pronouns. *Linguistic Inquiry* 33:409–442.
- Dedrick, John M. and Eugene H. Casad. 1999. *Sonora Yaqui language structures*. Tucson: University of Arizona Press
- Escalante, Fernando. 1990. *Voice and Argument Structure in Yaqui*. Ph.D. Dissertation. The University of Arizona.
- Fernández, Zarina Estrada et al. 2004. *Diccionario yaqui-español y textos: Obra de preservación lingüística*. Hermosillo, Sonora, Mexico: Universidad de Sonora; Mexico City: Plaza y Valdés Editores.
- Guerrero, Lilián. 2004. *The syntax-semantic interface in Yaqui complex sentences, a Role and Reference Grammar analysis*. Ph. D. Dissertation. University at Buffalo.
- Harley, H and E. Ritter. 2002. Person and number in pronouns: a feature-geometric analysis. *Language*, 78:482-526.
- Jelinek, Eloise et.al. *Yaqui Language Workbook*. Ms. The University of Arizona.
- Johnson, Jean Bassett. 1962. *El Idioma Yaqui*. Mexico DF: Instituto Nacional de Antropología e Historia.
- Lindenfield, Jacqueline. 1979. *Yaqui Syntax*. University of California Press.
- Molina, Felipe, David Shaul & Herminia Valenzuela. 1999. *Yoeme-English English-Yoeme Standard Dictionary*. New York: Hippocrene Books.