

## The Underlying Structure of Full and Clitic Pronouns in Hiaki

Rachel Brown

University of Arizona

rachelbrown@email.arizona.edu

CONFERENCE ON INDIGENOUS LANGUAGES OF LATIN AMERICA

October 29, 2015

University of Texas at Austin

### 1.0 Background

#### 1.1 Pronouns in Hiaki

Hiaki (also Yaqui, Jiaki, Yoeme) is a Uto-Aztecan language (subfamily: Tara-Cáhtic) spoken in Sonora, Mexico and in Arizona, United States (Lewis et al. 2015). Hiaki has full form (2a) and morphophonologically reduced clitic pronouns (2b).

- (1) Maria uka uusi-ta ania  
 Maria the.ACC child-ACC help  
 “Maria is helping the child”. (Harley and Trueman 2012: 5)

- (2) a. **Empo vempo'im ania**  
**2sgNOM 3plACC help**  
 “You help them!” (Harley and Trueman 2012: 5)

- b. **Am=ania='e**  
**3plACC=help=2sgNOM**  
 “You help them!” (Harley and Trueman 2012: 6)

**Table 1 Nominative Full Pronouns**

	Singular	Plural
1 <sup>st</sup> person	inepo	itepo
2 <sup>nd</sup> person	empo	eme'e
3 <sup>rd</sup> person (animate only)	a'apo	vempo

**Table 2 Accusative Full Pronouns**

	Singular	Plural
1 <sup>st</sup> person	nee	itom
2 <sup>nd</sup> person	enchi	enchim
3 <sup>rd</sup> person (animate only)	apo'ik	vempo'im

**Table 3 Nominative Clitic Pronouns**

	Singular	Plural
1 <sup>st</sup> person	=ne	=te
2 <sup>nd</sup> person	=ee	=em
3 <sup>rd</sup> person (animate or inanimate)	=∅	=(i)m/=∅

**Table 4 Accusative Clitic Pronouns**

	Singular	Plural
1 <sup>st</sup> person		
2 <sup>nd</sup> person		
3 <sup>rd</sup> person (animate or inanimate)	aa=	am=

**Research Question: Does the absence of 1st or 2nd person accusative clitic pronouns in Hiaki constitute a paradigmatic gap?**

**1.2 Paradigmatic Gaps**

Paradigmatic gaps are instances of defectiveness in the grammar.

**Examples of Defectiveness:**

(3) Russian shows defectiveness in the Genitive Plural

**Table 5 Nominal Paradigm in Russian showing a Gap in the Genitive Plural of *mečta***

<i>mečta</i> 'dream'	Singular	plural
Nominative	m <sup>1</sup> ečt-á	m <sup>1</sup> ečt- ý
Accusative	m <sup>1</sup> ečt-ú	m <sup>1</sup> ečt- ý
Genitive	m <sup>1</sup> ečt- ý	
Dative	m <sup>1</sup> ečt- é	m <sup>1</sup> ečt-ám
Locative	m <sup>1</sup> ečt-é	m <sup>1</sup> ečt-áx
Instrumental	m <sup>1</sup> ečt-ój	m <sup>1</sup> ečt-ámi

(4) Defectiveness in English occurs with the verb *beware*.

Sentences where *beware* is expected to be grammatical

- a. \*John bewares of the dog.
- b. \*John bewared/bewore of the dog.
- c. \*John doesn't beware of the dog.

(5) Defectiveness also occurs with the past tense of *forego*

- a. \*I forwent dessert
- b. \*I forgoed dessert

**Definition of Paradigmatic Gap:**

**paradigmatic gap:** There is no synthetic way to express a particular mental representation within a paradigm despite language-internal motivation for the well-formedness of the representation.

Importantly, in order to have a paradigmatic gap, the language must not have a synthetic way to express the mental representation.

**Whether are not the absence of 1st or 2nd person accusative clitic pronouns in Hiaki constitute a paradigmatic gap depends on whether Hiaki full form pronominals have the same underlying structure as Hiaki clitic pronominals.**

## 2.0 Hypotheses

### 2.1 Null Hypothesis: Full and Clitic Pronouns as Allomorphs

If full and clitic pronominals are allomorphs in Hiaki, then clitic pronouns have the same underlying structure as their respective full forms. Under this view, full and clitic pronouns are different pronunciations of the same underlying structure that occur in different contexts. In this case, there would not be a paradigmatic gap.

### 2.2 Alternative Hypothesis: Full and Clitic Pronouns as Distinct Underlying Forms

If full and clitic pronominals are underlyingly distinct lexical items, then the accusative clitic paradigm contains a paradigmatic gap. The idea that full and clitic pronouns are distinct is consistent with work by Cardinaletti and Starke (1994). This would be supported by evidence showing that full and clitic pronouns have different syntactic and semantic distributions and do not occur in complementary distribution.

## 3.0 Evidence from Hiaki

### 3.1 Position in Simple Canonical Sentences

The canonical constituent order in Hiaki is SOV as shown in (6). When full pronouns are used in (7), the order remains the same.

- (6) Maria uka                      uusi-ta                      ania  
 Maria the.ACC                      child-ACC                      help  
 “Maria is helping the child”. (Harley and Trueman 2012: 5)

- (7) **Empo**                      **vempo'im**                      ania  
**2sgNOM**                      **3plACC**                      help  
 “You help them!” (Harley and Trueman 2012: 5)

The constituent order, however, changes when clitic pronouns are used. Nominative clitics typically appear in 2<sup>nd</sup> position, while accusative clitics are attached preverbally.

- (8) Vempo'im=**'e**                      ania  
 3sgACC=**2plNOM**                      help  
 “You help them!” (Harley and Trueman 2012: 6)

- (9) **Am=ania='e**  
**3plACC=help=2sgNOM**  
 “You help them!” (Harley and Trueman 2012: 6)

### 3.2 Coordination

Coordination is grammatical with full pronouns, but it is ungrammatical with clitic pronouns.

- (10) 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.” (Harley and Trueman 2012: 6)

- (11) \*Heewi, ofisina-po=ne      Peo-ta      intok    **aa=**      vicha-k  
 Yes, office-at=1sgNOM    Pete-ACC    and    **3sgACC=**see-PRF  
 “Yes, I saw Pete and her at the office.” (Harley and Trueman 2012: 7)

### 3.3 Predicates

Both full and clitic pronouns can act as arguments as seen throughout the handout. However, only full pronouns can occur as predicates as shown in (12). Sentences with clitics acting as predicates are ungrammatical as shown in (13)

- (12) E'e, kaachin ne      in      amu-m      **vempo-la-im**      su'utohi-ne  
 No nothing 1sgNOM 1GEN maternal.grandchild-pl **3pINOM-PART<sup>1</sup>-pl** leave-FUT  
 “No, I (maternal grandma) can't leave them (the grandchildren) by themselves.”

- (13) \*E'e, kaachin ne      in      amu-m      **am-la/a-la-m**      su'utohi-ne  
 No nothing 1sgNOM 1GEN maternal.grandchild-pl **3pINOM-PART** leave-FUT  
 “No, I (maternal grandma) can't leave them (the grandchildren) by themselves.”

---

<sup>1</sup> The suffix –la has been described as a participial nominalizer (Dedrick and Casad 1999) and a subject participle suffix (Harley 2014). Crucially, the attachment of –la can result in a predicate. For example, “Hoana vuiti-la” means ‘Joana ran off (i.e. eloped)’ or more literally ‘Joana is an eloped one’ (Harley 2014: 5).

### 3.5 Animacy of Antecedents

Clitic forms in Hiaki can refer to both animate (14b) and inanimate antecedents (15b), while full forms can only refer to animate ones (14a). Sentence (15a) is ungrammatical when the full pronoun refers to an inanimate object.

(14)

a. **Empo**            **vempo'im**    ania  
**2sgNOM**        **3plACC**        help  
 “You help them!” (Harley and Trueman 2012: 5)

b. **Am=ania='e**  
**3plACC=help=2sgNOM**  
 “You help them!” (Harley and Trueman 2012: 6)

(15)

a. \*Nee            mesa-po            **aapoik**                    mana-k  
 1sgNOM        table-on            **3sgACC**                    put.container-PRF  
 “I put it on the table.” (Harley and Trueman 2012: 5)

b. Nee            mesa-po            **aa=**                    mana-k  
 1sgNOM        table-on            **3sgACC=**                put.container-PRF  
 “I put it on the table.” (Harley and Trueman 2012: 5)

### 3.6 Clitic Doubling

A clitic form of the pronoun can co-occur with its corresponding full form that it co-refers with. Example (16) shows clitic doubling in a nominative context.

(16) **Inepo=ne**            kaa    in            haboli-ta                    apola-ik            su'utoha-ø  
**1sgNOM=1sgNOM**    NEG    1GEN    grandfather-ACC        alone-ACC        leave-PRES  
 “I cannot leave my grandfather alone.”

Clitic doubling can also occur in accusative contexts. In (17-22), the accusative third person clitic forms *aa* and *am* co-appear with their full form counterparts *aapolik* and *vempo'im*.

(17) Hoan                            **aapoik**            **aa=**                    vicha-k  
 Juan                                **3sgACC**            **3sgACC=**                see-PST  
 “Juan saw him”

(18) Empo                            **aapoik**            **aa=**                    anía-ne  
 2sgNOM                            **3sgACC**            **3sgACC=**                help-FUT  
 “You will help him”

- (19) Uu chuu'u a'apoik aa= hahase  
 DET dog 3sgACC 3sgACC= chase  
 "The dog chases him"
- (20) Hoan vempo'im am= vicha-k  
 Juan 3plACC 3plACC= see-PST  
 "Juan saw them"
- (21) Empo vempo'im am= ania  
 2sgNOM 3plACC 3plACC= help  
 "You help them"
- (22) Empo vempo'im am= hahase-ne  
 2sgNOM 3plACC 3plACC= chase-FUT  
 "You will chase those guys (deer)"<sup>2</sup>

#### 4.0 Discussion

##### 4.1 Summary of Data

**Table 6 Summary of presented data**

	Full Pronoun		Clitic Pronoun	
	Nominative	Accusative	Nominative	Accusative
morphophonologically reduced	no	no	yes	yes
positionally dependent	no	no	yes	yes
can be coordinated	yes	yes	no	no
can be arguments	yes	yes	yes	yes
can be predicates	yes	no data	no	no data
can have inanimate referent	no	no	yes	yes
complementary distribution	no	no	no	no

**The data shows that full and clitic pronouns have different semantic and syntactic properties and do NOT occur in complementary distribution.** This suggests that they have different underlying structures instead of being allomorphs of the same underlying structure. Thus, the absence of 1st or 2nd person accusative clitic pronouns in Hiaki constitute a paradigmatic gap

#### 4.2 Structural Explanation

##### 4.2.1 Distinctions in Grammar

Quote from Sims (2014): "while paradigmatic gaps are highly idiosyncratic, the nature of the idiosyncrasy is informative"

**Why is there a gap in the accusative first and second person clitic paradigm?**

<sup>2</sup> In addition, this sentence shows that doubled pronouns can refer to deer. This provides evidence that animals are classified as animate in Hiaki, because full pronouns can only have animate antecedents.

The specific location of the paradigmatic gap within the pronominal system in Hiaki suggests that accusative first and second person clitic forms are not licensed— while full forms, nominative clitics, and third person accusative clitics are. This motivates several distinctions:

1. underlying distinction between full and clitic forms (Cardinaletti and Starke 1994)
2. separate analyses for nominative contexts in comparison to accusative contexts
3. person hierarchy effects: where first and second person are treated differently from third person (D'Alessandro and Roberts 2010; Béjar and Rezac 2009)

#### **4.2.2 Model of Pronouns in Hiaki**

An adequate model of Hiaki grammar must predict the absence of 1st and 2nd person accusative clitics. In such a model, the valuing of 1st and 2nd person features through Agree<sup>3</sup> can only occur internally to the pronoun or through Agreement with Tense. In accusative clitic contexts, this valuing cannot take place.

##### Person features:

- **1<sup>st</sup>/2<sup>nd</sup> Person Interpretation:** [person] feature is valued
- **3<sup>rd</sup> Person Interpretation:** default person; [person] feature remains unvalued (D'Alessandro and Roberts 2010)

##### Potential Sources of [person] valuing:

- T
- Within DP<sup>4</sup>

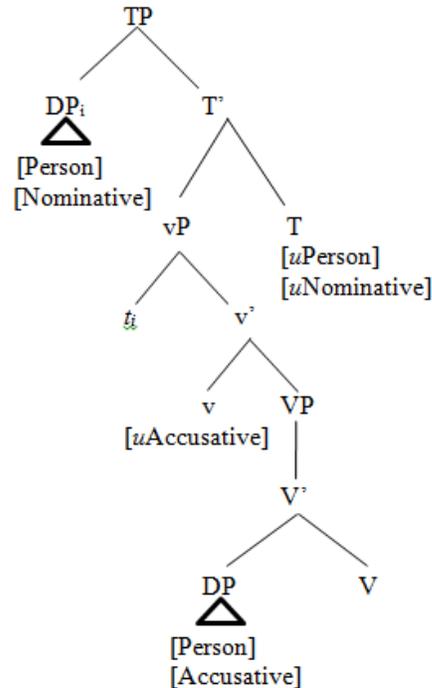
---

<sup>3</sup> Agree: syntactic dependency relationship between two nodes with the same morphosyntactic feature(s). When an Agreement relationship is established between two nodes and the syntactic feature(s) of the nodes match, these features are valued (Chomsky 2000 as cited in Béjar and Rezac 2009)

<sup>4</sup> extension of Cardinaletti and Starke (1994)'s work claiming that full forms have more function projections than clitic forms which can assign structural case

**Nominative Contexts: DP and T Agree**

- **3<sup>rd</sup> Person Full and Clitic forms:**  
[person] feature remains unvalued
- **1<sup>st</sup>/2<sup>nd</sup> Person Full and Clitic forms:**  
[person] feature valued through Agree relation between Tense and subject DP

**Accusative Contexts: DP and v Agree**

- **3<sup>rd</sup> Person Accusative Full and Clitics:**  
[person] feature remains unvalued
- **1<sup>st</sup>/2<sup>nd</sup> Person Full Forms:** [person] feature valued DP-internally without establishing an Agreement relationship outside of the pronoun
- **1<sup>st</sup>/2<sup>nd</sup> Person Accusative Clitics (gap context):** fail to value [person] feature

**4.3 Conclusions**

Hiaki contains full and clitic pronouns that have distinct semantic and syntactic properties and do not occur in complementary distribution. Thus, full and clitic pronouns in Hiaki are not allomorphs and have different underlying structures. Based on this evidence, the absence of 1<sup>st</sup> and 2<sup>nd</sup> person accusative clitic pronouns constitute a paradigmatic gap.

I assert that the paradigmatic gap in the accusative pronominal paradigm is systematic and requires a structural explanation. The fact that the paradigmatic gap in Hiaki is located within the pronominal system suggests that defectiveness in the grammar can be on a broader scale than just single isolated lexical items. This suggests that defectiveness in the grammar is more than just an idiosyncratic phenomenon that is peripheral to the linguistic system. Instead, defectiveness reflects properties of the linguistic system that cannot be ignored by linguistic theory.

**Acknowledgements**

I would like to thank my committee for my first preliminary exam: Dr. Heidi Harley, Dr. Adam Ussishkin, and Dr. Thomas Bever. Their feedback on my drafts was invaluable. In addition, thank you to Dr. Andrea Sims whose presentation at the University of Arizona Colloquium (Fall 2014) inspired this work. In addition, I would like to thank Dr. Robert Henderson, Alex Trueman, Louise St. Amour, and my classmates in LING 697a for reviewing this project and listening to me present this work in various forms. Most importantly, thank you to my Hiaki-speaking consultants! This work would not be possible without your patience and expertise. Lastly, I would like to thank the UofA Linguistics Department and the Graduate and Professional Student Council for their support that allowed me to attend this conference.

**References**

- Béjar, S., & Rezac, M. (2009). Cyclic agree. *Linguistic Inquiry*, 40(1), 35-73.
- Cardinaletti, A., & Starke, M. (1994). The typology of structural deficiency. On the three grammatical classes. *Working Papers in Linguistics*, 4(2), 41-109.
- Crumrine, L. S. (1961). Appendix: Texts. In *The Phonology of Arizona Yaqui: With texts* (pp. 13-42). Tucson: University of Arizona Press.
- D'Alessandro, R., & Roberts, I. (2010). Past participle agreement in Abruzzese: split auxiliary selection and the null-subject parameter. *Natural Language & Linguistic Theory*, 28(1), 41-72.
- Dedrick, J. M. & Casad, E.H. (1999). *Sonora Yaqui Language Structures*. Tucson: University of Arizona Press.
- Harley, H. (2014). Two participial suffixes. *-ri* and *-la*, and the syntactic category tests. Lecture conducted from University of Arizona, Tucson.
- Harley, H. & Trueman, A. (2012). Hiaki pronominals and the typology of deficiency. In *Proceedings of WAIL 13*, University of California Santa Barbara, 40-54.
- Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig (eds.). 2015. *Ethnologue: Languages of the World, Eighteenth edition*. Dallas, Texas: SIL International.
- Sims, A. (2006). Minding the gaps: Inflectional defectiveness in a paradigmatic theory. Ph.D. The Ohio State University.
- Sims, A. (2014, October 17). Defectiveness as allomorphy: How the idiosyncratic fringes of inflection are not as idiosyncratic after all. *Department of Linguistics Colloquium*. Lecture conducted from University of Arizona, Tucson.

