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## **Person Hierarchy and inverse voice in Kadiwéu\***

**ABSTRACT:** An inverse voice system is triggered by person features in Kadiwéu: when there is a first or second person internal argument, the internal arguments must precede the verb (OV inverse order), whereas a third person internal argument must follow it (VO). Only one argument agrees with the verb, and which argument is marked is also decided by a person hierarchy (2>1>3). This paper offers a syntactic analysis of inverse voice and an interface Phonology/Syntax analysis of agreement. This work aims to show that the framework of Distributed Morphology, that proposes a view of Grammar Architecture that models up the articulation between Syntax, Morphology and Phonology, allows us to understand the morphology and syntax of the mysterious phenomenon of person hierarchy in at least one American language.

**KEYWORDS:** Person hierarchy; Inverse voice; Agreement; Word order.

**RESUMO:** Um sistema de voz inversa é desencadeado por traços de pessoa em kadiwéu: quando há um argumento interno de primeira ou segunda pessoa, o argumento interno deve preceder o verbo (ordem inversa OV), enquanto um argumento de terceira pessoa deve seguir o verbo (VO). Apenas um argumento concorda com o verbo, e qual argumento será marcado também é decidido por uma hierarquia de pessoa (2>1>3). Este artigo oferece uma análise sintática para voz inversa e uma análise de interface sintaxe/fonologia para concordância. Este trabalho pretende mostrar que o quadro da Morfologia Distribuída, que propõe uma visão da Arquitetura de Gramática que pode modelar a articulação entre Sintaxe, Morfologia e Fonologia, permite-nos entender a morfologia e a sintaxe do misterioso fenômeno de hierarquia de pessoa in pelo menos uma língua americana.

**PALAVRA-CHAVE:** Hierarquia de pessoa; Voz inversa; Concordância; Ordem de palavras.

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## 1. INTRODUCTION

The data for this work comes from a digital archive under elaboration via a SOAS documentation project. One goal of this paper is to show how digital major language archives can help to shed a light on major questions in theoretical and typological linguistics. Person hierarchy has been a topic of concern in the typological literature since the seventies (cf. Dixon 1994). On the typological framework standpoint, the phenomenon relies on a tight relationship between morphological expression and constructional markedness as defined by markedness hierarchies (e.g. 1>2>3). Such markedness hierarchies predict what arguments are more likely to take the role of subjects. Arguments high on the scale of markedness make better subjects and those low on the scale are better objects. According to this theory, when unexpectedly a hierarchy-high argument is object and/or a hierarchy-low argument is subject this argument is morphologically marked. Only recently person hierarchy has been approached in formal linguistics. Aissen (1999, 2000) has formalized the typological analysis sketched above in terms of ranked constraints built out of relational hierarchies by means of Functional Optimality Theory. This is not, however, the only approach to person hierarchy in formal linguistics. Jelinek (1993, 2000), Isaak (2000), and Jelinek & Carnie (2003) have approached this topic in a very different perspective, and the papers by Aissen brought about an interesting quarrel about this phenomenon (cf. Carnie 2002). Jelinek & Carnie (2003) attempt to show that the phenomena of argument shifts driven by argument hierarchies are sensitive to presuppositionality and they claim the phenomena are better explained from the perspective of Diesing's (1992) mapping hypothesis syntactically encoded. Other researchers argue that person syntax is implemented as a field of functional heads which specifically check the person features of the verb's arguments (cf. Bianchi 1995). Person hierarchy is a very common phenomenon in South American languages. This paper approaches Kadiwéu, a Guaykurúan language spoken in the Chaco area of Brazil. Kadiwéu exhibits a "2nd person over first" effect in the agreement morphology. Why should there be a 2nd person projection, and when is it active? Is it related to presuppositionality indeed?

Kadiwéu offers strong evidence for Jelinek & Carnie's proposal that there is extraction of an internal argument to a higher specifier position that triggers agreement. Evidence for the internal argument syntactic dislocation comes from adverb placement, negation, and focalization. Evidence shows that a first or second person internal argument is placed in an additional position in TP, below the subject. Nevertheless, this movement is not related to presuppositionality as Jelinek & Carnie thought. Evidence comes from the behavior of third-person presupposed arguments and of topic arguments. There is an additional specifier position in TP to which arguments that carry person features raise. Third-persons are featureless and remain in situ. I argue that this is an inverse voice system triggered by person features that must be verified via agreement.

This paper explains syntactic order and person hierarchy agreement. The object dislocation creates a syntactic configuration in which there are two syntactic positions in TP that trigger agreement in syntax. Only one position is spelled out. The reason why 1st person disappears in the case of 2nd person objects is because 1st person undergoes a morphological rule of feature impoverishment (Nevins & Sandalo 2010), a post-syntactic operation.

In the view of this work, person hierarchy is an epiphenomenon of inverse syntax in interface with morphology.

## 2. AGREEMENT IN KADIWÉU

Kadiwéu has agreement prefixes on the verb for internal and external arguments. But direct arguments are in complementary distribution with subject arguments. There is a person hierarchy,  $2 > 1 > 3$ , that defines the argument that is morphologically marked. If the object is third-person, a transitive verb agrees with the external argument regardless of the person of the subject:<sup>1</sup>

- (1) jema:  
*j-ema:n*  
 1SUB-want/love  
 'I love him/her'
- (2) jema:naGa  
*j-ema:n-Ga*  
 1SUB-want/love-pl  
 'We love him/her'
- (3) ema:ni  
*a-ema:n-i*  
 2SUBJ-want/love-pl  
 'You love him/her'
- (4) yema:  
*y-ema:n*  
 3SUBJ-want/love  
 'He/she loves him/her'

But the verb agrees with the internal argument if the external argument is third person and the internal argument is first or second person. In this case, the morpheme *d:-* 'inverse' must be present:<sup>2</sup>

- (5) id:ema:  
*i-d:-ema:n*  
 1OBJ-inverse-want/love  
 'He/she loves me'
- (6) God:ema:  
*Go-d:-eman*  
 1plOBJ-inverse-want/love  
 'He/she loves us'
- (7) Gad:ema:ni  
*Ga-d:-eman-i*  
 2OBJ-inverse-want/love-pl  
 'He/she loves you'

<sup>1</sup> The following abbreviations are used in Kadiwéu examples in this work: 1 = first person, 2 = second person, 3 = third person, APPI = Applicative, COMP = complementizer, LF = logical form, NEG = negative, SUBJ = subject, OBJ = object, OBL = oblique argument, pl = plural, sg = singular. Note that Kadiwéu does not allow hiatus; this language has [t] epenthesis to avoid hiatus. An epenthetic [t] is glossed EPN.

<sup>2</sup> Typologically similar morphemes have been called *relational* in the literature of Brazilian Indian languages. But researchers outside Brazil have labelled *relational* as inverse (cf. Payne 1994, for instance). I label *d:- inverse*, rather than relational, because it resembles the inverse of North American languages. Later, I discuss why I believe that this is an inverse voice structure. For additional details of the morphology of agreement in Kadiwéu, see Nevins & Sandalo 2010.

When there is no third person involved (that is, the direct argument is either first or second person), the second person argument is marked. The inverse morpheme must be present.

- (8) Gad:ema:ni  
*Gad-d:-eman-i*  
 2OBJ-inverse-want/love-pl  
 ‘I love you’
- (9) ad:ema:ni  
*a-d:-eman-i*  
 2SUBJ-inverse-want/love-pl  
 ‘You love me’

Intransitive verbs (i.e. reflexives, antipassives, and verbs that contain an incorporated noun) are marked by subject prefixes.<sup>3</sup> The prefixes that mark the subjects of intransitive verbs, however, are not the same as the ones that mark transitive subjects. Since the subject of antipassives are active subjects, I reject an analysis of such markers as inactive subject markers in Kadiwéu, as it is commonly assumed for Waikurúan languages (cf. Ceria & Sandalo 1995, Grondona 1998). Since the subject of antipassives are agentive and since such markers occur with all kinds of intransitive verbs (antipassive and reflexive verbs, and also in verbs that undergo incorporation of a noun), I prefer to believe that we are dealing with intransitive subject markers.

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<sup>3</sup> Inergative verbs are not marked like intransitive verbs; they are marked like transitive verbs whose internal arguments are third person. This pattern is also attested in languages like Basque and Georgian. Note that Inergative verbs are analyzed as lexically transitive by Hale & Keyser (1993). Below there are inergative verbs for illustration. Note that there are some phonological rules operative here: vowels delete before vowels across morpheme boundaries (Braggio 1981: 23); sonorants delete in coda position. In addition, epenthetic -i- occurs to separate two consonants at morpheme boundaries:

j-aloqo  
 1SUBJ-swim  
 ‘I swam’

a-loqon-i  
 2SUBJ-swim-pl  
 ‘You swam’

w-aloqo  
 3SUBJ-swim  
 ‘He swam’

j-i-gaa  
 1SUBJ-ep-sing  
 ‘I sang’

a-gaan-i  
 2SUBJ-sing  
 ‘You sang’

y-i-gaa  
 3SUBJ-EPN-sing  
 ‘He sang’

I analyze Kadiwéu as an ergative language since the presence of antipassive structures indicates that this is an ergative language, and because mainly Kadiwéu shows an ergative behavior since the object of transitives is marked the same as the subject of unaccusatives.<sup>4</sup> If Kadiwéu is an ergative language, the presence of different agreement markers for transitive and intransitive subjects makes sense in such a language.

Below are some examples to illustrate the intransitive agreement pattern. Note that in the case of unaccusative and reflexive verbs, that is, verbs that have undergone promotion of an internal argument to a grammatical subject position, the inverse morpheme is marked.

- (10) *nemata*<sup>5</sup>  
*Ø-n-ema:n-t-e-wa*  
 3SUBJ- antipassive-want/love-EPN-3OBL-dative  
 'He/she loves him/her in a distance'
- (11) *d:apiqo*  
*Ø-d:-apiqo*  
 3SUBJ-inverse-warm  
 'It is warm'

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<sup>4</sup> Note, however that third 3<sup>rd</sup> person arguments show a three-way 'tripartite' split in Kadiwéu, where unaccusatives are marked by *Ø* (sg.) and *n-* -aGa (pl.), unergatives are marked by *y-/w-* (sg.) and *n-* -aGa (pl.), and transitive agents by *y-/w-* (sg.) and *o-y-* (pl.). In other words, 3rd person singular marking groups together unergative subjects and transitive agents, and 3rd person plural marking groups together both types of intransitives.

<sup>5</sup> I analyze example (10) as a case of antipassive because the verb is marked by an intransitivizing morpheme, *n-*, and the internal argument is demoted to an applicative object. Note that Kadiwéu does not have independent adpositions. Oblique arguments (including indirect objects) are in an applicative construction. An applicative construction triggers verb agreement. Thus, an agreement suffix in the verb is followed by an applicative morpheme. The applicative morpheme is always *-wa* in antipassives. But there are many applicative markers (see Sandalo 1997), where they are called theme markers). Compare below the same verb root in its transitive form and in its antipassive form. Compare also the oblique argument of an antipassive and an indirect object that follows. The Kadiwéu speakers seem to use the antipassive form when the object is somehow less affected. For instance, the verb 'to love' in its antipassive form means that the loved one (i.e. the applicative object) is loved in a distance and without any contact, not even visual.

*yema:*  
*y-ema:n*  
 3SUBJ- want/love  
 'He/she loves him/her'

*nema:ta*  
*Ø-n-ema:n-t-e-wa*  
 3SUBJ-antipassive-want/love-EPN-3OBL-APPL  
 'He/she loves him/her'

*yajigota*  
*y-ajigo-t-e-wa*  
 3SUBJ-give-EPN-3OBL-APPL  
 'He gives it to him'

- (12) id:aqakGa  
*i-d:-aqag-Ga*  
 1SUBJ-inverse-squat-pl  
 ‘We squat’

To sum up, Kadiwéu has a tripartite agreement system. Figure (1) below presents the three sets of agreement markers. Figure (1) attests that the intransitive set of agreement markers is different from the set of transitive subject agreement markers.

	SUBJECT (transitive)	SUBJECT (intransitive)	OBJECT
1sg	j-	i-	i-
2sg	a-...-i	a-...-i	Ga-
3sg	y- ~ w-	Ø - ~ n-	---
1pl	j-...-Ga	i-...-Ga	Go-
2pl	a-...-i	a-...-i	Ga-...-i
3pl	y-...Ga	o - Ø	---

Figure 1: Agreement

### 3. CONSTITUENT ORDER

As mentioned above, Jelinek & Carnie (2003) argue that all phenomena driven by argument hierarchies are reflex of Diesing’s (1992) mapping hypothesis syntactically encoded. According to Diesing, the truth is asserted with respect to the proposition in which the entities are denoted. Thus, the clause is divided into a nuclear scope (VP), that provides the new information of the clause; and a restrictor, that asserts the presupposed information. Only non-quantificational/non-presuppositional material (like non-specified indefinites) is allowed to stay in the nuclear scope. Presupposed material (like definite NPs) must leave the nuclear scope and be placed in the restrictive part of the clause. Diesing argues that this is universal, but semantically encoded (i.e. at LF) in language like English. Jelinek & Carnie (2003) argue that person-hierarchy is a reflex of such a system syntactically encoded.

In Kadiwéu, argument hierarchy is expressed by agreement, as seen above, as well as constituent order, as can be noticed in the data below. First/second person internal argument must precede the verb (OV order) but third person internal arguments follow it (VO order):

- (13) Goti            aqa:m:i            Gad:ema:ni  
*Goti            aqa:m-i            Ga-d:-ema:n-i*  
 Goti            2PRONOUN-pl      2OBJ-inverse-want/love-pl  
 ‘Goti loves you’
- (14) Goti            yema            Ekode  
*Goti            y-ema:n            Ekode*  
 Goti            1SUBJ -want/love    Ekode  
 ‘Goti loves Ekode’

The fact that first and second person, but not third person, internal arguments must precede the verb in Kadiwéu suggests that Jelinek & Carnie's (2003) proposal of accounting for person hierarchy in terms of Diesing's (1992) mapping hypothesis, is on the right track in claiming that there are internal arguments that must leave the VP.

Constituent order by itself, however, is not conclusive evidence. It is tradition in generative syntax to take adverbs as diagnostics for movement of other constituents. Assuming that adverbs are adjoined to VP, all elements preceding the adverb may be argued to be outside VP, and all elements following the adverb are inside VP (Pollock 1989).

Kadiwéu does not have many adverbs. Most of the notions expressed via adverbs in well known languages are expressed via predicates in this language, but there are at least three adverbs: *ejime* 'perhaps', *jaG* 'already', and *eG* 'still'. These adverbs have exactly the same placement concerning all the data discussed below.

### 3.1. Adverbs and internal arguments

The adverbs *ejime* 'perhaps', *jaG* 'already', and *eG* 'still' can occupy any of the positions marked by (X) in the data below. The sentence is ungrammatical, however, if the adverb is placed in the position marked by (\*).<sup>6</sup>

- |      |             |            |     |                      |
|------|-------------|------------|-----|----------------------|
| (15) | Ecabigo (X) | yema:(*)   |     | Ekode                |
|      | Ecabigo     | 3SUBJ-love |     | Ekode                |
| (16) | Ecabigo (X) | aqa:mi     | (X) | Gadema:ni            |
|      | Ecabigo     | 2PRONOUN   |     | 2OBJ-inverse-love-pl |

Some examples follow with the adverb *jaG* with the same sentences used in (15) and (16).

- (17) Ecabigo *jaG* yema: Ekode
- (18) \*Ecabigo yema: *jaG* Ekode
- (19) Ecabigo *jaG* aqa:mi Gadema:ni
- (20) Ecabigo aqa:mi *jaG* adema:ni

The data show that an adverb cannot interfere between the verb and a post-verbal object. Recall that an object is post-verbal (VO order) when it is third person. The facts concerning adverb placement show that a post-verbal internal argument is internal to VP.

<sup>6</sup> A phonetic transcription along with a morpheme by morpheme analysis is not provided here to better visualize the position of the adverb. It is important to mention here that an adverb *jaG* undergoes two productive phonological rules: /G/ deletion before a consonant in word boundary position, and vowel assimilation. Thus *jaG* is pronounced as *ja* in (17) as *jeG* in (18), and as *jaG* in (19) and (20).

First and second person direct internal arguments cannot ever be post-verbal, however. They must be placed before the verb (OV order) and the inverse morpheme appears obligatorily. An adverb can occur between the verb and the object in this case, and it shows that a preverbal internal argument has moved to outside of VP. I propose that the inverse morpheme is the head of a functional projection that receives an internal argument dislocated out of the VP.

The Kadiwéu facts concerning internal arguments resemble some facts of North American languages. This is an inverse voice system, and the so-called *relational* is an inverse morpheme. The inverse voice (morphologically marked here by the inverse *d:-*) is used when the internal argument is dislocated out of the VP. In the inverse voice, like in a passive, the internal object is fronted, but unlike the passive, there is no intransitivization and no argument is demoted. According with Gildea (1994), a direct-inverse language (i.e. a language that shows inverse voice) is a language where clauses with transitive verbs can be expressed either using a direct or an inverse construction. The direct construction is used when the subject of the transitive clause outranks the object in saliency (including person hierarchy, animacy or obviation). The inverse is used when the object outranks the subject. Some languages that have inverse voice include Algonquian, Athapaskan, and Mixe-Zoquean languages. For example, in Ojibwe, an Algonquian language of North America, inverse applies according to person hierarchy (second person > first person > proximate (the third person considered more important or basic in a discussion) > obviative (the third person considered less important or basic in a discussion)).

Jelinek & Carnie (2003) propose that a fronted object shifts from inside the VP to the specifier of a functional projection in an exploded TP, that they call AspP. In the next section, I present evidence that the position occupied by a fronted object in Kadiwéu is indeed high. I analyze this fact as a movement to the specifier position of AspP, and that the inverse morpheme is a morphological realization of Asp°. I will attempt to show, however, that this movement is not related to presuppositionality as they suggest.

### 3.2. Contrastive focus of object

It is important to mention that while a first/second direct internal argument cannot ever be final, a third person internal argument can occupy a preverbal position if it undergoes contrastive focusing. Note, however, that a preverbal focused object does not trigger agreement and the inverse morpheme does not appear:

- (21) Ecabigo Ekode yema:  
*Ecabigo Ekode y-ema:n*  
 Ecabigo Ekode 3SUBJ-love/want  
 Ecabigo loves Ecode (not somebody else)

In spite of the fact that the inverse is not marked and that agreement is not triggered, one could question whether a third person in contrastive focus occupies the same position as the internal argument of the inverse voice (first/second person). Negation placement indicates that they do not occupy the same position:<sup>7</sup>

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<sup>7</sup> Kadiweu negative marker is aG, recall that there is a phonological rule that deletes /G/ before a consonant.



- (22) e:                      aqa:mi                      a              Gad:ema:ni  
*e:*                      *aqa:mi*                      *aG*              *Ga-d:-ema:n-i*  
 1PRONOUN              2PRONOUN              NEG              2OBJ-inverse-love/want-pl  
 ‘I don’t love you’
- (23) Ecabigo              a              yema:                      Ekode  
*Ecabigo*              *aG*              *y-ema:n*                      *Ekode*  
 Ecabigo              NEG              3SUBJ-love/want              Ekode  
 ‘Ecabigo doesn’t love Ecode’
- (24) \*Ecabigo              Ekode              a              yema:  
*Ecabigo*              *Ekode*              *aG*              *y-ema:n*  
 Ecabigo              Ekode              NEG              3SUBJ-love/want  
 ‘Ecabigo doesn’t love Ecode’
- (25) Ecabigo              aG              Ekode              yema:  
*Ecabigo*              *aG*              *Ekode*              *y-ema:n*  
 Ecabigo              NOT              Ekode              3SUBJ-love/want  
 ‘Ecabigo doesn’t love Ecode’

As can be noticed above, a verb is preceded by *aG* ‘not’ when there is a pre-verbal object pronoun (inverse voice). The internal argument appears before the negative marker. But the same is not true if the object is a focused noun. The negative morpheme must precede the object. This is evidence that the inverse position is indeed special. That is, if we assume a NegP, the position of the inverted object is higher than NegP, whereas the position of the focused object is lower. This higher position triggers agreement, but the lower one does not.

Additional evidence for the claim that a focused object and an internal argument pronoun are not in the same position comes from the fact that there is no complementary distribution between a pre-verbal pronoun and a focused third person:

- (26) aqa:mi              libole                      jolataGadomi  
*aqa:mi*              *l-bole*                      *j-ola-t-aGa-dom-i*  
 2PRONOUN              3POSS-meat                      1POSS-give-EPN-2OBL-APPL-pl  
 ‘I give the meat to you (not something else)’

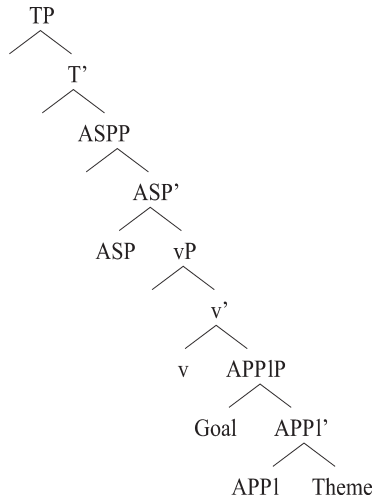
Note that the regular position of a noun object is final if not focused, even in a double object construction:

- (27) Ecabigo              aqa:mi              yolaGataGadomi                      libole  
*Ecabigo*              *aqa:mi*              *y-ola-t-aGa-dom-i*                      *l-bole*  
 Ecabigo              2PRONOUN              3SUB-give-EPN-2-benefactice-pl              3POSS-meat  
 ‘Ecabigo gives you the meat’

Recall also that an adverb can be placed between a verb and a dislocated internal argument, and this is evidence that the dislocated argument occupies a position independent

of the verb projection. If it were an additional specifier of vP, an adverb could not be placed in such position. I propose that the site is a specifier projection of AspP. Thus I assume the following syntactic structure:<sup>8</sup>

(28) Phrase Structure



#### 4. AGAINST THE MAPPING HYPOTHESIS

Jelinek (1993) notes that split case systems driven by person tend to occur in languages that do not have determiners. In these languages, third-person arguments are non-specific indefinites and therefore they are allowed to stay in the nuclear scope. First and second person arguments are intrinsically definites and therefore they must leave the nuclear scope and be placed in the restrictive part of the clause. Now, even without determiners, there are presupposed third-person arguments in a discourse. So, one could expect the inverse system to be active in such cases. However, this is not the strategy used by Kadiwéu. Third person arguments are dislocated to a pre-complementizer position if they are presupposed definite old information. Third person external arguments have priority. That is, a presupposed subject is dislocated if there is one. But presupposed third person objects are dislocated if the subject is not third person. The examples below were elicited after a consultant told many people the myth of a warrior called Ecabigo. Therefore, Ecabigo was presupposed information.<sup>9</sup>

- (29) Paulo yo:wo            Ecabigo            me            yema:  
*Paulo y-o:wo*            *Ecabigo*            *me*            *y-ema:n*  
 Paulo 3SUBJ-think    Ecabigo            COMP            3SUBJ-love  
 ‘Paulo thinks that Ecabigo loves her’

<sup>8</sup> I propose an APPIP projection to account for the structure of indirect arguments and antipassives.

<sup>9</sup> The phenomenon occurs with any kinds of verbs as far as I know at this point of the research.

- (30) Paulo yo:wo            Ecabigo            me            aqa:mi            ema:ni  
 Paulo y-o:wo            *Ecabigo*            *me*            *aqa:mi*            *a-ema:n-i*  
 Paulo 3SUBJ-think    Ecabigo            COMP            2PRONOUN    2SUBJ-love-pl  
 ‘Paulo knows that you love Ecabigo’

There is also a not very productive switch reference system that can be noticed in texts to distinguish third-person arguments. A *d:-* morpheme is attached to the verb and indicates the change in focus of (proximative) third-person. But no argument dislocation is involved:

- (31) One            nawelaGada            GopoqonaGadi  
*One*            *n-awela-Ga-t-e-wa*            *GopoqonaGadi*  
 Evidential    3SUBJ-antipassive-scare-pl-EPN-3-dative    sp. Bird  
 ‘One says that one surprised the bird’

Coda Ika            layaGeg            Craw    crawl    Craw  
*Coda i-ka*            *l-aya-Gegi*            *craw*    *crawl*    *Craw*  
 And MASC-COP    3POSS-noise-NOM    crawl    crawl    Craw  
 ‘And there as a noise: crawl crawl crawl’

Oda jonaGa            dalotiniwake  
*Oda jaG+naGa*            *O-d:-alo-t-niwa-ke*  
 Então already-COMP(when)    3SUB-objv-run-EPN-going.together-outward  
 ijoa            domaGa            olicaGaGa  
*i-jo-wa*            *domaGa*            *oligaGa-Ga*  
 masc-COP-pl            almost            thief-pl  
 ‘Then, (it was) when the thieves ran away’

The inverse voice, as discussed before, a syntactic operation that dislocates an internal argument without intransitivation is not involved, however. Thus, it appears that Diesing’s hypothesis cannot be applied to Kadiwéu inverse voice. It seems to be a phenomenon actually related to person features, rather than to presupposition of arguments. I conclude this section with the claim that there is a special position outside of vP that licenses first and second-person internal arguments. Third-person remains in situ.

## 5. FINAL REMARKS ABOUT AGREEMENT

The movement of an internal argument creates a situation in which there are two specifier positions that trigger agreement. But there is one sole person agreement position in Kadiwéu. The fact that first person disappears in the presence of second person can be captured by the intuition that there is only one prefix position. But why does first person lose? Nevins & Sandalo (2010) argue that this is a morphological phenomenon – impoverishment (Harley 1994). Having 1st person and 2nd person on same T node (due to Multiple Agree) causes a “double whammy” of markedness and a impoverishment rule must occur. To understand their proposal, take the following features (Arregi & Nevins 2007):



- (37) aniqe:nitiwa  
*a-n-qe:n-i-t-i-wa*  
 2SUBJ-antipassive-introduce-pl-EPN-1OBL-APPI  
 ‘You introduce him to me’
- (38) \*aqe:nitiwa  
*a-qe:n-i-t-i-wa*  
 2SUBJ-introduce-pl-EPN-1OBL-APPI  
 ‘You introduce him to me’

This restriction holds with 1st person goals, regardless of the person of the agent. No such restriction holds for 2nd person goals. Antipassivization is optional and carries “conative” semantics. First person is indeed marked in Kadiwéu.

To sum up, Kadiwéu syntax includes an AspP projection that licenses first and second-person arguments, generating a syntactic configuration that there are two arguments triggering agreement. Finally, this paper adopts Nevins & Sandalo (2010) and show that the  $2 > 1$  hierarchy effect in agreement morphology is to be understood in terms of the greater markedness of the 1st person and a rule of impoverishment. Person-hierarchy is, thus, an epiphenomenon of syntax and morphology.

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## REFERENCES

- AISSSEN, Judith (1999). Markedness and subject choice in optimality theory. *Natural Language and Linguistic Theory* 17:673-711.
- \_\_\_\_\_. (2000). *Differential Object Marking: iconicity vs. economy*. Ms.
- ARREGI, Karlos; NEVINS, Andrew (2007). Obliteration vs. Impoverishment in the Basque g-/z- Constraint. The Proceedings of the Penn Linguistics Colloquium 30, edited by Tatjana Scheffer et al. *PennWorking Papers in Linguistics* 13(1):1-14
- BIANCHI, Valentina (2006). On the syntax of person arguments. *Lingua* 116:2023-2067.
- BITTNER, Maria; HALE, Ken 1996. The structural determination of case and agreement. *Linguistic Inquiry* 27(1):1-68.
- BRAGGIO, Silvia (1981). *Aspectos fonológicos e morfológicos do Kadiwéu*. Dissertação de Mestrado em Linguística. Campinas, SP: Instituto de Estudos da Linguagem, Universidade Estadual de Campinas.
- CHOMSKY, Noam (2000). Minimalist inquiries. In Roger Martin; Daniel Michaels; Juan Uriagereka (eds.). *Step by step: Essays on minimalism in honor of Lasnik Howard*, pp. 83-155. Cambridge, Mass: MIT Press.
- CERIA, Verónica G; SANDALO, Filomena (1995). A Preliminary Reconstruction of Proto-Waikurúan with Special Reference to Pronominals and Demonstratives. *Anthropological Linguistics* 37(2):169-91.
- CARNIE, Andrew (2002). *Phase Geometric Hierarchies*. Ms.
- DIESING, Molly (1992). *Indefinites*. Cambridge, MA: MIT Press.

- DIXON, R. M. W. (1994). *Ergativity*. Cambridge: Cambridge University Press.
- GILDEA, Spike (1994). Semantic and pragmatic inverse: 'Inverse alignment' and 'Inverse voice' in Carib of Surinam. In T. Givón (ed.). *Voice and Inversion*, pp. 187-230. Amsterdam/Philadelphia: John Benjamins.
- GRONDONA, Verónica (1998). *A Grammar of Mocovi*. University of Pittsburgh Ph. D. Dissertation.
- HARLEY, Heidi. (1994). 'Hug a tree: Deriving the morphosyntactic feature hierarchy'. In Andrew Carnie; Heidi Harley (eds.). *Papers on phonology and morphology. MITWPL 21*: 275-288.
- HALE, Ken; KEYSER, Samuel Jay (1993). On Argument Structure and the Lexical Expression of Syntactic Relations. In Kenneth Hale; Samuel Jay Keyser (eds). *The view from Building 20. Essays in honor of Sylvain Bromberger*, pp. 53-110. Cambridge, MA: MIT Press.
- ISAAK, Andre G. (2000). *Split Case Marking and Prominence Relations*. University of Massachusetts Ph.D. Dissertation.
- JELINEK, Eloise. 1993. Ergative 'Splits' and Argument Type. *MIT Working Papers in Linguistics* 18:15-42.
- \_\_\_\_\_.(2000). Datives and Argument Hierarchies. Papers in Honor of Ken Hale. In Andrew Carnie; Eloise Jelinek; Mary Willie (eds.). *MITWPL Endangered and Less well-known Languages Fund Series 1*: 51-70.
- JELINEK, Eloise; CARNIE, Andrew (2003). Argument Hierarchies and the Mapping Principle. In Andrew Carnie; Heidi Harley; Mary Willie (eds.) *Formal Approaches to Function in Grammar. In Honor to Eloise Jelinek*, pp. 265-296. Philadelphia: John Benjamins.
- NEVINS, Andrew; SANDALO, Filomena (2010). Markedness and Morphotactics in Kadiwéu [+participant] Agreement. *Morphology* (to appear).
- PAYNE, Doris L. (1994). The Tupí-Guaraní inverse. In Barbara Fox; Paul J. Hopper (eds.). *Voice: Form and Function*, pp.313-340. Amsterdam/Philadelphia: John Benjamins.
- POLLOCK, J.-Y. (1989). Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry* 20: 365-424.
- SANDALO, Filomena (1997). *A Grammar of Kadiwéu with special emphasis to the polysynthesis parameter*. MIT Occasional Papers in Linguistics 11

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