Mapping form to function, meaning, and interpretation in Iquito's *iina*, *iimi*, and *iipi*

...some preliminary results

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One of the most interesting and complicated phenomena in the Iquito language – not only in the context of basic linguistic description but also in the contexts of text transcription, translation, and analysis; and community-directed language instruction – is the trio of forms (words) \textit{iina}, \textit{iimi}, and \textit{iipi}. 
Syntactically, these forms appear as definite articles, demonstrative determiners, demonstrative pronouns, relative pronouns, and discourse anaphors; and they are obligatorily hosts for the exponence of number and gender (animacy) concord.
Sometimes their semantics (meaning, interpretation) is straightforward, based on distributional facts, but often this is not the case – especially in the context of analyzing and interpreting the flow of connected, spontaneous speech in an audio-recorded text.
Today, my objectives are to lay out the basic facts of the distribution of these forms; and then discuss an especially interesting facet of their distribution: relaxed concord within the NP/DP.
Outline for today

- Background information on the Iquito language and research context.
- Orientation to some relevant aspects of Iquito syntax.
- Distribution and functions of *iina*, *iimi*, and *iipi*.
- Exponence of number and animacy in Iquito NPs/DPs.
- Conclusions and contributions.
Iquito (Ikíitu) is a critically endangered Zaparoan language of northern Peruvian Amazonia.

At present, Ikíitu has about 15 fluent speakers, the youngest of whom are in their late 60s.

Most of these speakers live in the community of San Antonio de Pintuyacu in Loreto, Peru.

The Zaparoan family is itself critically endangered; Andoa [anb] (Katsakáti) has no speakers; Záparo [zro] (Sápara) has no fluent speakers; and Arabela [arl] has about 50 speakers.
My research is mostly done at the ‘Iquito Language Center’ in San Antonio de Pintuyacu, as part of the ongoing Iquito Language Documentation and Revitalization Project (ILDP).
The ILDP was first launched in 2001, by me and Lev Michael.

The Center (below) was first built in 2003, and then rebuilt in 2014, by Cabeceras Aid Project.
The language: location and research context

Work by the ILDP team has primarily been funded by:
→ Cabeceras Aid Project (on-going)
→ The Endangered Languages Fund (2002)
→ The Hans Rausing Endangered Languages Programme (MDP-0042, 2003-2006; PI Nora England)
→ NSF/NEH DEL Fellowship support for me and Lev Michael (#FN-230216 & #FN-230217; 2015-2016)
The language: location and research context

The core components of my contribution to the ILDP are:

1. Building and analyzing the text corpus, for the purposes of:
   (a) language and cultural documentation
   (b) linguistic description
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1. Building and analyzing the text corpus, for the purposes of:
   (a) language and cultural documentation
   (b) linguistic description

2. Nurturing the revalorization and revitalization of the language among the heritage community ... especially young people.
Available published documentation of Iquito does not yet fully describe the functions and uses of iina, iimi, and iipi.

The descriptions and analyses presented today are rooted in the teamwork of the team-based ILDP, which was active from 2002 through 2006 and again from 2014 through the present.

These descriptions and analyses build on and improve previous work done as part of the ILDP, including, but not limited to, Sullón (2005) and Michael (2006), as well as Hansen’s (2011) dissertation.
Existing documentation and data sources

- This paper is rooted in original fieldwork by the author since 2001.
- The data come from a still-growing ~6,000 line corpus of parsed texts encompassing a variety of genres, supported by targeted elicitation.
- Examples today are either:
  - Taken directly from texts, in which case the text’s identifying code and line number are given;
  - Based on texts, but edited for relevance to this presentation.
The basics of Iquito syntax

| 1st person singular | kíija  
kí=, k=´, kí= | 1st person plural inclusive | píija  
pí=, p=´ |
|---------------------|---------------|-----------------------------|----------|
| 1st person plural exclusive |  | kanáaja  
kana= |
| 2nd person singular | kiáaja  
kia= | 2nd person plural | kináaja  
kina= |
| 3rd person general | anúuja, anuu, nuu  
nu=, n= | 3rd person plural | naawaaka, naa  
na=, n= |

Table 1: Pronouns: independent forms and clitic forms
The basics of Iquito syntax

- Basic word order is SVO:

(1) **Iima ásaa paápaaja.**

Iima  asa  -: -Ø  paápaaja  
Ema  eat  -IMPERFECTIVE  -NON.PAST  fish.GENERAL

‘Ema is eating fish.’
‘Ema eats fish.’
Subjects may be expressed by NPs/DPs, as in (1):

(1) **Iima ásaa paápaaja.**
    
    Iima asa -: -Ø paápaaja
    Ema eat -IMPERFECTIVE -NON.PAST fish.GENERAL
    ‘Ema is eating fish.’
    ‘Ema eats fish.’
Subjects may be expressed by NPs/DPs, or by verbal proclitics as in (2):

(2) **Nu=ásaa paápaaja.**

\[
\begin{array}{c}
\text{nu=} \\
\text{asa} \\
\text{3.GENERAL} \\
\text{eat} \\
\text{fish.GENERAL}
\end{array}
\]

‘He/she/it is eating fish.’

‘He/she/it eats fish.’
The basics of Iquito syntax

- Topic phrases may occur at the left or right edge of the sentence, as in (3) and (4):

(3) **Iima, nu=ásaa paápaaja.**

Iimaₐ nuᵢ= asa -: -Ø paápaaja
Ema 3.GENL eat -IMPF -NON.PST fish.GENL
‘Ema, she is eating fish.’
‘Ema, she eats fish.’
The basics of Iquito syntax

- Topic phrases may occur at the left or right edge of the sentence, as in (3) and (4):

(4) *Iina ikwani, nu=iíkii iiti.*

ii -na ikwani nu= iíki -i -Ø iiti

DET -GENL man 3.GENL live -IMPV -NON.PST here

‘The man, he lives here.’
‘That man, he lives here.’
Topic phrases require a resumptive pronoun, as in (3), (4), and (5):

(5) Paápaaja, nu=ásaa nuu.

paápaaja, nu= ása -: -Ø nuu.

fish.GENL 3.GENL= eat -IMPF -NON.PST 3.GENL

‘(As for) fish, she/he/it is eating it.’
‘(As for) fish, she/he/it eats it.’
Focus phrases may occur at the left or right edge of the sentence:

(6) **Paápaaja nu=ásaa.**
    paápaaja  nu= ása -: -Ø
    fish.**GENL**  3.**GENL**= eat -**IMPF** -**NON.PST**
    ‘(It is) fish she/he/it is eating.’
    ‘(It is) fish she/he/it eats.’
Verbs are obligatorily inflected for aspect and tense, which includes some portmanteau morphology, as in (7) and (8):

(7) **Na=ásaáriki paápaaja.**

*na= ása -áriki paápaaja*

3.PL eat -IMPERFECTIVE.REMOTE.PAST fish.GENL

‘They were eating fish (long ago).’

‘They (habitually) ate fish (long ago).’
Verbs are obligatorily inflected for aspect and tense, which includes some portmanteau morphology, as in (7) and (8):

(8) Na=ásakiáaki paápaaja.
-na ása -kiáaki paápaaja
3.PL eat -PERFECTIVE.REMOTE.PAST fish.GENL
‘They ate fish (that one time long ago).’
Reality status is also obligatory, and is marked by a word order alternation:

(9) **Na=paápaaja ásarii.**

\[
\begin{align*}
\text{na=} & \quad \text{paápaaja} & \quad \text{ása} & \quad \text{-rii} & \quad -\emptyset \\
3.\text{PL=} & \quad \text{fish.genl} & \quad \text{eat} & \quad \text{-MOMENTARY.PERFECTIVE} & \quad \text{-NON.PST}
\end{align*}
\]

‘They will eat fish (in the future).’

→ see Beier et al. (2011) and Hansen (2011) for more on this typologically rare means of exponing an inflectional category.
Verbs may bear derivational morphology and evidential clitics:

(10) ‘...n=aki ásatiikiáaki=na nuu...’

nu= aki ása -tií -kiáaki =na nuu
3.GENL father eat -CAUSTIVE -PRF.RPST =REPORTIVE 3.GENL

‘...su padre le ha hecho comer…’ [HMK:399]
‘...her father made her eat...’
‘...her father fed her...’
The basics of Iquito syntax

- Word order in NPs/DPs is always ‘Quantifier Noun’:

(11) kuumi samúkwaati
two.INAN plantain.GENL
‘two plantains’
Word order in NPs/DPs is always ‘Determiner Noun’:

(12) iina samúkwaati
    DET.GENL plantain.GENL
    ‘the plantain(s)’
    ‘that/those plantain(s)’
The basics of Iquito syntax

- Basic word order in NPs/DPs is ‘Determiner Noun Adjective’...

(13) iina samúkwaati ákusana
    DET.GENL plantain.GENL red/ripe.GENL
    ‘the ripe plantain(s)’
    ‘that/those ripe plantain(s)’
The basics of Iquito syntax

- ...and ‘Determiner Adjective Noun’ order is also well-attested in texts:

\[(14) \text{iina ákusana samúkwaati} \]
\[
\text{DET.GENL red/ripe.GENL plantain.GENL}
\]

‘the ripe plantain(s)’
‘that/those ripe plantain(s)’
Functions of iina, iimi, and iipi
Functions of ìììà, ìììì, and ìììì î

- Demonstrative pronoun

(15) “Ìììà táà=na kììja=na!”

ìì -na tåà =na kììja =na
DEM -GENL COP =REP 1.SG =REP

“Aquí estoy yo!” (ella dijo.)’ [DMV:40]
“Here I am!” (she said.)’
Functions of *iina*, *iimi*, and *iipi*

- **Demonstrative determiner**

  (16) **iina** ikwani, nu=iíkii iiti.
  
  iin -na ikwani nu= iíki -i -Ø iiti
  DEM -GENL man 3.GENL= live -IMPV -NON.PST here
  'Ese hombre, él vive aquí.'
  'That man (with gesture), he lives here.'
Functions of *iina*, *iimi*, and *iipi*

- **Definite article**

  (17) **Iina** saakíini iipi kuupi iitimira taárikì=ja kusiaamiya
  
  `La historia de las dos mujeres valientes’ [DMV:title]  
  ‘The story of the two women who were brave’
Functions of iina, iimi, and iipi

- Relative pronoun

(18) Kí=kia=saaki̱̱nii nuúkıika miísaji iina taárikɨ=na kusiaami.

kí=     kia=    saaki̱̱nii       -Ø       -Ø
1.SG=  2.SG=  tell.someone.something -PRF -NON.PST
nuúkıika  miísaji  ii        -na        ta       -aárikɨ      =na      kusiaami.
 INDEF.ART   woman    REL.PRO   -GENL    COP   -IMPF.RPST  =REP  brave

‘Te voy a contar de una mujer que era, dicen, valienta.’ [DMV:3]
‘I’ll tell you about a woman who was, they say, brave.’
The status of Determiner Phrases (DPs) in Iquito is complex and intricate.

- Determiners exhibit a number of typologically unusual syntactic behaviors.
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- Determiners exhibit a number of typologically unusual syntactic behaviors.
- Split NPs/DPs are common -- usually with intransitive verbs but not always:

  (19) Íiya iina=na, jaari iina anikiáaki=na ikwani nu=mananúuni=ánuura imiráani.

  ‘Así dicen, luego ese hombre ya había venido para molestarla otra vez.’ [CAS:14]
  ‘So they say, soon that man approached to bother her again.’
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- Whether phrases that include determiners are headed by their determiner or headed by their noun is not clear-cut.
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- Whether phrases that include determiners are headed by their determiner or headed by their noun is not clear-cut.
- Therefore, I opt for using the collocation NPs/DPs in writing, in order not to imply a definitive analysis of these phrases. I will say “noun phrase” in this talk with this caveat in mind.
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- Determiners exhibit a number of typologically unusual syntactic behaviors.
- Whether phrases that include determiners are headed by their determiner or headed by their noun is not clear-cut.
- Therefore, I opt for using the collocation NPs/DPs in writing, in order not to imply a definitive analysis of these phrases. I will say “noun phrase” in this talk with this caveat in mind.
- At this point, when both the ‘definite article’ and ‘demonstrative determiner’ readings are possible, I have labeled those cases DET.
NPs and DPs in Iquito

- Whether the default reading of such collocations as *iina ikwani* is ‘the man’ or ‘that man’ is one of the tricky questions that I am still trying to answer.

  (19) Íiya iina=na, jaari iina anikiáaki=na ikwani nu=mananúuni=ánuura imiráani.

  ‘Así dicen, luego *ese hombre* ya había venido para molestarla otra vez.’ [CAS:14]
  ‘So they say, soon *that man* approached to bother her again.’
“Across languages, demonstratives provide a common historical source for definite articles, relative and third person pronouns, copulas, sentence connectives, directional preverbs, and many other grammatical items.”

[Diessel 1999: 1]
Agreement and concord
In the interest of clarity, I make use of Corbett’s (1994, 2006) terminological discussion, and use the term concord to refer to a specific sub-type of agreement.

Concord is a formally-exponed morphological agreement system that is active exclusively within the NP/DP.
Agreement and concord

- Crucially, in order to understand the system of number concord (and animacy concord) within Iquito NPs/DPs, we must distinguish:
  - **Semantic concord**, in which some aspect of the ‘meaning’ of a word is reflected in the behavior of other words;
  - **Formal concord**, which is a product of the morphological exponence of number (and animacy) on elements within NPs/DPs. (Corbett 1991)
In Iquito, formal exponence of number (and animacy) is **obligatory** in all contexts where it is morphologically possible;

but semantic concord of this morphology with its real-world referents is frequently **unspecified** in the formal system;

and formal concord among obligatorily morphology is not exhaustive.
In general number systems, “the meaning of the noun can be expressed without reference to number” (Comrie 2000: 10).

The expression (or specification) of number is optional.

For all third person referents, Iquito exhibits a binary contrast between general number, in which number is unspecified; and plural number, or ‘more than one.’
The grammatical number system in Iquito exhibits a two-way contrast between plural number (20), and general number, as in (21).

(20) ii -pi musúti -pi paápaaja
    DET -PL.ANIM white -PL.ANIM fish.GENL
    ‘the/those white fishes’

(21) ii -na musúti-na paápaaja
    DET -GENL white-GENL fish.GENL
    ‘the/that/those white fish(es)’
In order to describe the exponence of number in Iquito, we must engage with **animacy** as well, because these two categories are exponed in the same set of portmanteau morphemes.
“Genders are classes of nouns reflected in the behavior of associated words” (Hockett 1958 in Corbett 1991: 1)

Iquito attests a single, semantically-assigned gender class: animacy.

Entities classed as animate are living, moving entities at the time of reference; this includes, for example, living fish but not dead fish; and people, ghosts, and demons, but not cadavers.

The contrast between animate and inanimate is only formally exponed in the context of plural number.
Exponent of number

- Iquito exhibits a **binary contrast in number**: general or plural.
- Number agreement is not expressed on verbs (although pluractional suffixes do exist).
- Number agreement is not expressed on adverbs, adpositions.
- Number morphology is obligatory and unavoidable on all types of determiners, relative pronouns, most adjectives, and derived nouns.
Iquito exhibits a three-way contrast in gender: general animacy (unspecified), inanimate, and animate. Gender agreement is not expressed on verbs. Gender agreement is not expressed on adverbs, adpositions. Animacy is only formally exponed as part of plurality when -mi (inanimate) or -pi (animate) is present. Otherwise, the animacy of non-derived lexical nouns is not morphologically identifiable.
The three suffixes that expone ‘number’ in Iquito also expone ‘animacy’:

<table>
<thead>
<tr>
<th>Suffix</th>
<th>General number/animacy</th>
<th>Plural inanimate</th>
<th>Plural animate</th>
</tr>
</thead>
<tbody>
<tr>
<td>-na</td>
<td>GENL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-mi</td>
<td>PL.INAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-pi</td>
<td>PL.ANIM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number not specified:
- More than one

Animacy not specified:
- Not animate
- Animate
These suffixes appear on:

<table>
<thead>
<tr>
<th></th>
<th>General</th>
<th>Plural inanimate</th>
<th>Plural animate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definite articles</td>
<td>iiina</td>
<td>iiimi</td>
<td>iiipi</td>
</tr>
<tr>
<td>Demonstratives</td>
<td>iiina</td>
<td>iiimi</td>
<td>iiipi</td>
</tr>
<tr>
<td>Relative pronouns</td>
<td>iiina</td>
<td>iiimi</td>
<td>iiipi</td>
</tr>
<tr>
<td>Adjectives</td>
<td>ákusana ‘red’</td>
<td>ákusami</td>
<td>ákusapi</td>
</tr>
<tr>
<td>Numerals: 2, 3, 4</td>
<td>n/a</td>
<td>kuumi</td>
<td>kuupi</td>
</tr>
<tr>
<td>Derived animate nouns</td>
<td>asáana ‘eater’</td>
<td>n/a</td>
<td>asáapi ‘eaters’</td>
</tr>
<tr>
<td>Derived inanimate nouns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>naajuútaakami ‘pens’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Exponence of number and animacy

The numerals 2, 3, and 4 formally expone number and animacy.

<table>
<thead>
<tr>
<th></th>
<th>Inanimate</th>
<th>Animate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>nuúkiika</td>
</tr>
<tr>
<td>2</td>
<td>kuumi</td>
<td>kuupi</td>
</tr>
<tr>
<td>3</td>
<td>siísaramaajitáammi</td>
<td>siísaramaajítáapi</td>
</tr>
<tr>
<td>4</td>
<td>süwaramaajitáammi</td>
<td>süwaramaajítáapi</td>
</tr>
</tbody>
</table>

Table 4
Nearly all lexical (non-derived) nouns can be pluralized through suffixation.

The nominal plural suffixes which occur with no clear pattern of phonological or semantic conditioning environments are: -a, -ka, -wa, -wiya, -ya.

Those with semantic conditioning environments: -waaka, -kuuri, -yuuri.

The most common nominal plural suffix is -ka, and it is the default suffix in the

In addition, there are many partially or entirely suppletive plural forms of lexical nouns.
(a) Entirely and (b) partially suppletive plural nouns:

<table>
<thead>
<tr>
<th>General</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)  miisaji</td>
<td>iitimira</td>
</tr>
<tr>
<td>maaya</td>
<td>mirajaárika</td>
</tr>
<tr>
<td>kí=maaya</td>
<td>kí=mira</td>
</tr>
<tr>
<td>(b)  náana</td>
<td>náaka</td>
</tr>
<tr>
<td>paápaaja</td>
<td>paápaka</td>
</tr>
<tr>
<td>síruku</td>
<td>siíruwa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>woman, female</td>
<td>women, females</td>
</tr>
<tr>
<td>child (non-possessed)</td>
<td>children (non-possessed)</td>
</tr>
<tr>
<td>my child</td>
<td>my children</td>
</tr>
<tr>
<td>tree</td>
<td>trees</td>
</tr>
<tr>
<td>fish</td>
<td>fishes</td>
</tr>
<tr>
<td>howler monkey</td>
<td>howler monkeys</td>
</tr>
</tbody>
</table>

Table 5
Having examined the categories of number and animacy at the level of words and morphemes, let us now turn to the principles of concord that are active at the level of the NP/DP.

The two principles that we’ll consider are exhaustivity and sufficiency.
Exhaustivity

‘including all elements, fully comprehensive’

- In the case of concord: category information fully formally exponed on all possible elements.
Exhaustivity

‘including all elements, fully comprehensive’

- In the case of concord: category information fully formally exponed on all possible elements.
- In many varieties of Spanish:

  (22) ‘*Es* a *pequeña* vie*ja* *casa* blanca *está* abierta.’

  ‘That little old white house is open.’
Exhaustivity

‘including all elements, fully comprehensive’

- In the case of concord: category information fully formally exponed on all possible elements.
- Exhaustivity is, for many linguists, the default expectation for concord and agreement systems; while non-exhaustive patterns in linguistic data are considered a ‘mismatch’ that must be explained.
Sufficiency

‘an adequate amount of something, especially of something essential’

- In the case of concord: an adequate amount of essential information.
Sufficiency

‘an adequate amount of something, especially of something essential’

- In the case of concord: an adequate amount of essential information.
- In Iquito:

  (23) ‘...kuumí náana ínaaja náaji…’
  ‘...dos palos puesto así…’
  ‘...two treetrunk laid down like that…’ [AN1:87]
I propose that these are two contrasting ways of accounting for patterns of number concord within NPs/DPs.

- Exhaustive concord is possible, attested, and even preferred by some speakers in elicitation contexts.
- Sufficient concord is both possible and widely attested in our text corpus and in spontaneous conversation.
- But what is the principle behind ‘sufficiency’?
Relevance

‘the quality of being closely connected or appropriate’

- In the case of concord: the quality of being an appropriate level of information for proper interpretation of the referent.
In broad strokes, the notion of ‘sufficiency’ that I propose here for Iquito concord hews to what Sperber and Wilson (2002) call ‘optimal relevance’.

The specifics of the application of Relevance Theory to this analysis are beyond the scope of today’s discussion.
Relaxed concord

- A close examination of patterns of concord within NPs/DPs and between NPs/DPs and their referents in the context of connected discourse in parsed texts reveals that both NP/DP internal concord and external reference (semantic concord) follow pragmatic principles of relevance and sufficiency rather than grammatical principles of exhaustive formal concord.
Relaxed concord

- A close examination of patterns of concord within NPs/DPs and between NPs/DPs and their referents in the context of connected discourse in parsed texts reveals that both NP/DP internal concord and external reference (semantic concord) follow pragmatic principles of relevance and sufficiency rather than grammatical principles of exhaustive formal concord.

- Concord within Iquito NPs/DPs is ‘facultative’ — that is, it is at the speaker’s discretion how to deploy the formal exponence of number (and animacy), and it is not based on formal obligations imposed by the grammar.
Relaxed concord

- This is to say, in general, the explicit, specific expression of number and animacy is made when it is *relevant* to the development of the discourse topic;
- And once reference to number and animacy has been made, that first reference is often *sufficient*, allowing subsequent concord to relax, as shown next, excerpted from a traditional narrative...
(24) ‘Nu=siwaáni-rii-kiáaki=na tiiti ii-pi iíki-aárikɨ=na síruku, maasiáana síruku.’

nu= siwaáni-rii-kiáaki=na tiiti ii-pi 3.GENL= arrive-MOM.PRF-PRF.RPST=REP where DET-ANIM.PL

iíki-aárikɨ=na síruku live-IMPF.RPST=REP howler.monkey.GENL

maasiáa-na síruku many-GENL howler.monkey.GENL

‘He arrived where the howler monkeys lived, many howler monkeys.’ [MAS.8]
Relaxed concord

- This is the first mention of the howler monkeys.
- Available plural form of síruku = siíruwa
- Available plural form of maasiáana = maasiáapi
Here is where we arguably see an impact of ‘language shift’;
or, framed differently, interference from the language ideologies native to
the local Spanish-speaking context, which color prescriptive attitudes
about language use in general:

When reviewing the transcription of this audio-recorded text line by line
with, the narrator wanted to increase the degree of concord in this
sentence.
‘He arrived where the howler monkeys lived, many howler monkeys.’ [MAS.8']
‘He arrived where the howler monkeys lived, many howler monkeys.’
(25) ‘Anuu=jata=ti kuúkii kuupi kí=maaya, nuúkiika miisaji, nuúkiika ikwani, mjm.’

<table>
<thead>
<tr>
<th>Word</th>
<th>Role</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>anuu</td>
<td>3.FOCUS.GENL</td>
<td>become</td>
</tr>
<tr>
<td>=jata</td>
<td>=COMITATIVE</td>
<td>-IMPF</td>
</tr>
<tr>
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<td>maaya</td>
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‘Con él hubiera habido dos mis hijos, una mujer y un varón, sí.’ [ENP.204]  
‘With him, I would have had two children, one girl, one boy, yes.’
Relaxed concord

- The Iquito system only makes sense if the binary contrast in number is between ‘unspecifed’ and ‘more than one’.
- A singular reading of any lexical noun or of the ‘general number’ morpheme ‘-na’ is, in a strict sense, inferred from discourse and context, not part of its lexical meaning.
Relaxed concord

- It is crucial, if obvious, to point out that neither formal nor semantic mismatches, or contradictions, are permitted!
It is crucial, if obvious, to point out that neither semantic or formal mismatches are permitted:

(26) * ii -pi musúti -pi náana
    DET -PL.ANIM white -PL.ANIM tree.GENL
Relaxed concord

- It is crucial, if obvious, to point out that neither semantic nor formal mismatches are permitted:

(27) * ii  -pi  musúti  -mi  paápaaja
    DET -PL.ANIM  white  -PL.INAN  fish.GENL

(28) * ii  -mi  musúti  -pi  paápaaja
    DET -PL.INAN  white  -PL.ANIM  fish.GENL
Sensitivity to animacy hierarchy

- Broadly speaking, the higher the referent is located on the animacy hierarchy below, the more likely that number/animacy concord will be exponed:

  (1) at first mention
  (2) after the first mention

  1st person, 2nd person, proper names, humans
  > non-human animates
  > inanimates
Next steps to develop this analysis

- It is not yet clear if definiteness has a principled role in patterns of concord attested in the text corpus.

- How well the facts of the Iquito case can be explained in by Relevance Theory — and the notion of Optimum Relevance in particular — requires further work.
Conclusions and contributions

- The Iquito system is intriguing because, as we have seen, the language both requires the formal morphological expression of grammatical number (and animacy) on most determiners, adjectives, and deverbal nouns...

- and does not require strict concord among these elements in many cases;
- neither in a narrow sense, among co-occurring elements within a NP/DP itself;
- nor in a broader sense, semantically, between NPs/DPs and their real-world referent(s).
Conclusions and contributions

- The data from Iquito provide one answer to the long-standing question, most pertinent to syntactic theory, of how to account for so-called ‘mismatches’ within formal and semantic agreement systems that are attested in many languages of the world.

- The data from Iquito illustrate the crucial role that a large corpus of audio-recorded data of language-in-use can play in developing accurate, nuanced analyses of typologically interesting phenomena — especially in this case, where early elicitation data and language consultants’ language ideologies, were weighted toward an incorrect analysis of this phenomenon.
### Abbreviations used

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>3.GENL</td>
<td>third person, general number/animacy</td>
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<td>general number/animacy</td>
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<td>imperfective, remote past</td>
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References


Michael, Lev. 2006b. *Nominal number morphology*. Iquito Language Documentation Project manuscript.


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