Lexical affixes in Wao Terero depend on context for properties associated with the lexical-grammatical dichotomy

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What do Wao Terero lexical suffixes contribute to an understanding of lexical and grammatical meanings?

Wao Terero lexical suffixes occur on many parts of speech.

They have varying roles, which partially depend on part of speech.

The descriptive content of the affixes is largely consistent across uses but lexical status is not.

This implies that the affixes are neither inherently lexical nor grammatical, but may be licensed in contexts of either type.

I explore a measure of grammaticality that relies on relative discourse status.

Boye and Harder (2012) and Boye (2023) propose that categorically grammatical items have conventionally secondary discourse status, while lexical items are capable of having primary status.

There are issues for current diagnostics advocated for by the authors.

In particular, the provided diagnostics are conflated with constituency and wordhood diagnostics.

Neither are they established, widely used diagnostics for at-issue content.

I address this issue by leveraging established tests for discourse status found in formal pragmatics.

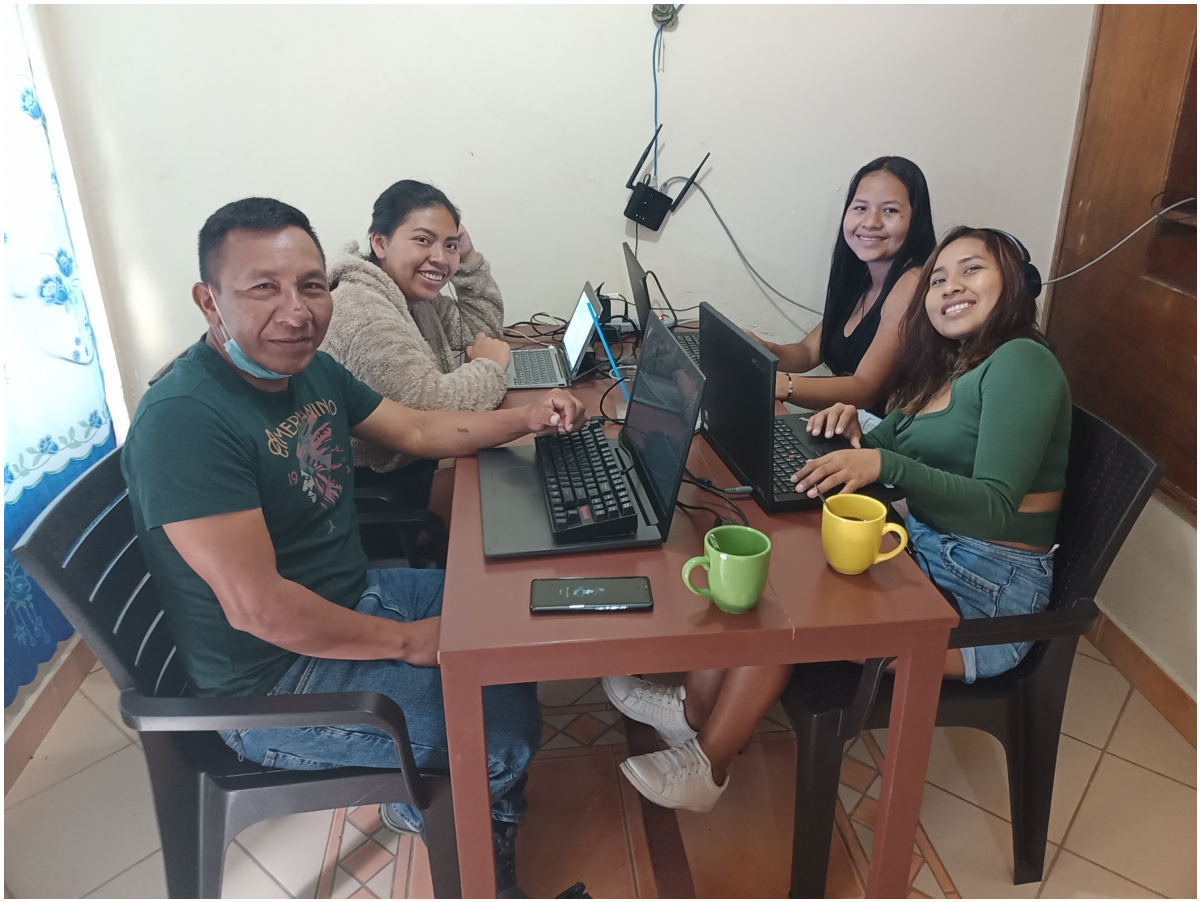
I utilize the negation diagnostic borrowed from the literature on *proffered content* to measure the discourse primary status of meanings. It is one among a variety of such diagnostics.

Proffered content is what is asserted in an assertion, and is the non-presupposed content of questions and commands (Roberts, 2012).

Notable, it is a measure that does not reference form, nor has it been used at any time to test for wordhood.

Data is drawn from fieldwork with Wao Terero speakers.

Wao Terero is a linguistic isolate spoken in the Ecuadorian Amazon.



Some language experts in my office in Puyo, Ecuador.

I begin with an overview of data.

My goals are the following:

- The examples allow for an understanding of the data used in later diagnostics.
- I demonstrate that my characterization of the affixes and their various roles is justified.
- Additional information relevant to grammatical status provides convergent data points that lend strength to the results of the discourse-based diagnostics.

I use a number of non-standard glossing conventions.

These are largely to focus attention on aspects of examples that are key to arguments made in this work.

- (PLANT): Bound stems with little or no independent meaning have labeled glosses placed in parentheses. The label does not represent a meaning.
- LS.PLANT: For lexical suffixes generally. They are annotated with a label, which is not intended as a semantic interpretation.
- CLF.PLANT: For classifier uses of lexical suffixes.

Wao Terero lexical suffixes have a wide distribution.

The suffixes occur on most parts of speech, including:

- nouns,
- verbs,
- adjectives,
- demonstratives,
- numerals,
- quantifiers,
- and question words.

This allows for a comparison of their lexical versus grammatical uses across categories.

Lexical suffixes in Wao Terero are a closed class.

Documentation is ongoing. The longest list of affixes includes 80 (Fiddler, 2011)[1]. I find at least 33 of these to be questionable for various reasons. Whatever the precise size of the class, there is no productive means of adding to it.

[1]The list is taken from an unpublished manuscript by Catherine Peeke.

On nominals, lexical suffixes are associated with nominal meanings that are sometimes compound-like.

(1) a. *kẽ-wẽ*
(MANIOC)-LS.PLANT
'manioc plant/stalk/stem'

b. *kẽ-dẽ*
(MANIOC)-LS.FOOD
'manioc tuber'

c. *kẽ-wẽ-yabo*
(MANIOC)-LS.PLANT-LS.LEAF
'manioc leaf'

Described by Peeke (1968) as *classifiers*, nominal uses demonstrate a distribution consistent with lexical suffixes in other languages (Haeberlin, 1974).

For nominals, lexical suffixes are not in competition.

(2) *kẽ-wẽ-yabo*
(MANIOC)-LS.PLANT-LS.LEAF
'manioc leaf'

This might imply they are more like common nouns in compounds, which do not compete and are considered lexical.

Some nominal stems are bound and contribute little to meanings.

These will prove key in demonstrating certain aspects of the lexical-grammatical status of the suffixes.

There are two types of interest.

First, there are stems that occur with only a particular affix, limiting the affix meaning.

Di- limits *-ka* to the meaning stone.

(3) *di-ka*
(STONE)-LS.FRUIT

'stone'

The *-ka* affix is elsewhere associated with multiple meanings, 'stone', 'head', 'fruit' and others.

Second, there are stems that occur with a number of affixes, limiting the affix meanings to a particular domain.

Õdõ- limits affix meanings to a body part interpretation.

(4) a. *õdõ-boka*
(BODY)-LS.EAR
'ear'

b. *õdõ-po*
(BODY)-LS.HAND
'hand'

The *-po* suffix, in particular, has a range of uses, including 'hand', 'forelimb', 'canoe', and 'grape-like cluster'.

On other parts of speech lexical suffixes often have a classifier function.

(5)

a-wẽ	*pa-wẽ-ta-bo-pa*
(PLANT)-LS.PLANT	cut-CLF.PLANT-PST-1-DECL

'I was cutting trees.'

As evidence of classifier status, one sees characteristic "doubling", where the affix constrains felicitous arguments of the host but does not *saturate* the argument (Mithun, 1986; Rosen, 1998).

Classifier descriptive content constrains the felicity of a salient property in discourse.

The property may be supplied by an argument to the host.

(6) *bãdĩ-ka* *di-ka* *a-bo-pa*
DEM-CLF.FRUIT (STONE)-LS.FRUIT see-1-DECL

'I see this stone.'

The property may be "discourse familiar" according to the requirements of the host.

(7) *bãdĩ-ka* *a-bo-pa*
DEM-CLF.FRUIT see-1-DECL

'I see this (allowing stone/fruit/head/etc).'

Classifiers are not grammatical noun class agreement.

Unlike grammatical agreement, classifier use shows *semantic* concord, and their use is not obligatory.

(8) a. *bãdĩ-pa* *di-ka* *a-bo-pa*
DEM-CLF.BOARD (STONE)-LS.FRUIT see-1-DECL

'I see this stone. (when the stone is flat)'

b. *bãdĩ* *di-ka* *a-bo-pa*
DEM (STONE)-LS.FRUIT see-1-DECL

'I see this stone.'

On verbs, adjectives, and demonstratives, lexical suffixes are always in competition.

(9) a. *yẽdẽ-po* *õdõ-po-gõ* *a-bo-pa*
big-CLF.HAND (BODY)-LS.HAND-LS.THORN see-1-DECL

'I see a big finger.'

b. * *yẽdẽ-po-gõ* *õdõ-po-gõ* *a-bo-pa*
big-CLF.HAND-CLF.THORN (BODY)-LS.HAND-LS.THORN see-1-DECL

'I see a big finger.'

Competition is often seen as a grammatical characteristic.

On non-verbs, person marking and lexical suffixes are in competition.

(10) a. *yẽdẽ-gade* *ĩ-dã-pa*
big-CLF.STOMACH COP-3.F-DECL

'She is fat.'

b. *yẽdẽ-dã* *ĩ-dã-pa*
big-3.F COP-3.F-DECL

'She is fat.'

c. * *yẽdẽ-gade-dã* *ĩ-dã-pa*
big-CLF.STOMACH-3.F COP-3.F-DECL

'She is fat.'

Competition with typically grammatical content may suggest some similarity in meaning and function.

How do we measure the grammatical versus lexical status of the suffixes?

The following discussion of diagnostics has three goals.

- The definitions and diagnostics provided by Boye and Harder (2012) are presented.
- The need to extend their original diagnostics is discussed.
- The negation diagnostic for proffered content is described.

Boye and Harder provide the following definitions of lexical and grammatical meaning.

- Lexical meaning: Lexical meaning is by convention capable of being discursively primary.
- Grammatical meaning: Grammatical meaning is by convention discursively secondary.

There are three proposed symptoms of secondary status.

- NONFOCALIZABILITY: Grammatical expressions cannot be assigned discursively primary status by focalizing expressions. (Boye and Harder, 2012, p. 14)
- NONADDRESSABILITY: Grammatical expressions cannot be assigned discursively primary status by being addressed in subsequent discourse. (Boye and Harder, 2012, p. 15)
- NONMODIFIABILITY: Grammatical expressions cannot be elaborated through modification. (Boye, 2023)

The issue with nonaddressability.

Nonaddressability is one half of the notion of an *anaphoric island*, and exists in various definitions of lexical integrity (Simpson, 1991).

"[S]uch an entity is a sentence part which cannot contain an anaphoric element whose antecedent lies outside the part in question and *which cannot contain the antecedent structure for anaphoric elements lying outside*." (Postal, 1969, p. 205)

The domain of the word is argued to have this characteristic.[2]

[2] See Harris (2006) for arguments for non-English counter examples.

The issue with nonfocalizability.

The proposed diagnostics, such as cleft constructions, and occurrence within the scope of particles such as *only*, *just*, or *even* are only appropriate for free items.

There is a narrow focus test but using this to focus sub-word components is considered meta-linguistic.

The issue with nonmodifiability.

Modifying something that cannot be referred to presents issues. The diagnostic is not completely independent of nonaddressability. They are co-presented using the same example in (Boye, 2023).

If it includes modification of heads in compound-like constructions, it provides a clear guideline. Then *-yabo* should be considered lexical below but it isn't clear what counts.

(11) *kẽ-wẽ-yabo*
(MANIOC)-LS.PLANT-LS.LEAF
'manioc leaf'

The issue with diagnostic overlap.

If the diagnostics for grammaticality converge with wordhood diagnostics, it is unclear which concept is being measured.

There is a large literature on at-issue content and projection for measures of discourse status. It would be advantageous to borrow diagnostics that were designed independently of the grammaticality and wordhood questions.

As a measure of discourse primary status, negation diagnostics behave similarly to the Boye and Harder diagnostics for many items.

Proffered content is presented for acceptance or rejection by the speaker and may be canceled under negation.

(12) It is not the case that Fluffy, *a cat*, saw birds. What a good cat!

The meaning of a noun may be discourse secondary, due to backgrounding, where it is not canceled under negation.

(13) It is not the case that I saw a cat. # What a good cat!

But a common noun is *capable* of being primary, and may be canceled. This indicates that its meaning is lexical.

Many items that cannot be focused cannot be negated.

Tense, number, gender, etc. cannot be canceled in this way. This indicates that they are conventionally secondary, and therefore grammatical.

The negation diagnostic differs in providing a means to investigate multiple meanings of a single form.

Boye and Harder (2012) consider pronouns to be lexical due to focalizability.

(14) a. A: Is that him?

b. B: No, it isn't him. He is at home.

Placing *him* within the scope of negation does not cancel gender, number, the familiarity of the referent, nor the target of the referent. Therefore, these meanings of the pronoun, are non-proffered.

This does not completely contradict the lexicality claim.

Pronouns have both proffered and non-proffered meanings.

"The proffered content of a pronoun is just a variable whose semantic value in a particular context is always given in the same way, via a contextually specified function assigning values to variables." (Roberts, 2004, p. 504)

It is now time to test Wao Terero constructions.

There are three parts to this.

- The grammatical status of classifiers will be demonstrated.
- It will be established that sometimes lexical suffix meanings may be proffered.
- A comparison is made with common noun behavior in English.

To test whether classifiers are proffered content, I utilize a "true, false, nonsense" paradigm.

(15) **context:** Given the image, are the following statements true, false or nonsense?

a. T *gītã̃-ka* *eibe* *ĩ-pa*
small-CLF.FRUIT above COP-DECL

'The small one is above.'

b. F *yẽdẽ̃-ka* *eibe* *ĩ-pa*
big-CLF.FRUIT above COP-DECL

'The big one is above.'

Improper classifier use results in infelicity.

(16) 

a.# *gītã-wẽ* *eibe* *ĩ-pa*
small-CLF.PLANT above COP-DECL

'The small one is above.'

b.# *yẽdẽ-wẽ* *eibe* *ĩ-pa*
big-CLF.PLANT above COP-DECL

'The big one is above.'

Negation does not cancel classifier meanings.

(17) 

a. F *gītã-ka* *eibe* *ĩ-dãbai* *ĩ-pa*
small-CLF.FRUIT above COP-NEG COP-DECL

'The small one is not above.'

b. T *yẽdẽ-ka* *eibe* *ĩ-dãbai* *ĩ-pa*
big-CLF.FRUIT above COP-NEG COP-DECL

'The big one is not above.'

Reference is felicitous and is not canceled despite being under the scope of negation.

Classifiers meanings appear to be grammatical.

I have yet to discover any means of directly negating a classifier.

Are nominal uses also grammatical?

Compound-like constructions are opaque to negation.
Strawberry is not really related to ‘straw’, and is only a type of *berry*. Demonstrating that these can be negated independently is not informative for the idiomatic compound.

In Wao Terero "meaningless" stems allow for negation of affix associated meanings.

(18) a. *di-ka* *a-dãbai* *ĩ-bo-pa*
(STONE)-LS.FRUIT see-NEG COP-1-DECL

'I don't see a stone.'

A meaning of *-ka* is 'stone'. The stem *di-* does not add anything but a restriction on possible meanings of *-ka*. That affix meaning is primary in the construction.

Many body-part meanings are primary with *õdõ*.

(19) a. *õdõ-po* *a-dãbai* *ĩ-bo-pa*
(BODY)-LS.HAND see-NEG COP-1-DECL

'I don't see a hand.'

Does this mean that classifiers are lexical, despite their grammatical behavior?

According to Boye and Harder (2012), lexical meanings are *capable* of being discourse primary.

I do not believe the condition for lexicality applies to classifier uses.

There is no uniform grammatical convention for changing discourse status that applies to the class of affixes as a whole.

- There are only some meaningless stems, like *di-*. Not all suffixes have such a stem available to "promote them".
- Only some meanings are represented in these contexts, such as body-part meanings with *õdõ-*.

The discourse primary versus secondary relationship is different than found with English common nouns.

(20) It is not the case that

a. I saw the cat/communication/charge. It was good.

b. I saw a cat/communication/charge. # It was good.

Uniformly across the category of common nouns, the same patterns in relative discourse status occurs in the same grammatical environments, without any restriction on an item's nominal polysemy.

Categorizing affixes as inherently grammatical or lexical does not predict the behavior of Wao Terero lexical suffixes.

Some theories, such as Distributed Morphology (Bobaljik, 2017), require that all morphemes are classified as either lexical $\sqrt{}$roots or are grammatically licensed.

This is not to say that such a theory cannot provide an analysis of the Wao Terero data.

The point is that such an analysis would not fall out of a theory's morpheme categorization strategy. A potential analysis is likely possible *despite* the strategy.

Why not just have both lexical and grammatical versions of the affixes?

A mixed categorization requires duplication.

Proposing a lexical 'rock' *-ka* when there is a classifier *-ka*, which also has a 'rock'-related meaning is redundant. Each such lexical morpheme would share a meaning and a form with a grammatical duplicate.

I propose an alternative explanation to the Wao Terero data.

A simple explanation for such a mixed distribution is that lexical and grammatical meanings are in the licensing context, and are not rigid properties of the affixes themselves.

This may help explain phenomena in other languages where the behavior of some items is ambiguous.

This conclusion is consistent with the notion that grammatical meaning is defined in terms of discourse.

When grammatical meaning is defined as conventionally non-proffered meaning, it entails that the status of those meanings are determined by larger discourse and semantic patterns.

That certain signals types, such as bound morphs, are correlated to such a status is interesting, and requires explanation, but one would not expect that such formal characteristics determine discourse meanings.

Conclusion

The cross-category productivity of Wao Terero lexical suffixes presents a rare opportunity to observe the behavior of a class of affixes across a broad range of construction types.

Discourse prominence was successfully measured using a diagnostic that was designed independently of concerns for grammaticality and wordhood. I feel the result was consistent with my intuitions concerning grammatical status in the system. This shows that the Boye and Harder, 2012 insight extends beyond the original purpose made diagnostics.

Thank you!

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