

# On some linguistic wonders of NYC 

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# ELA background 

Three case studies
Garifuna auxiliaries
Asking questions in Ikota The peculiar case of Wakhi

Conclusion

## ELA Background

## The fieldstation



## Mother-tongue + English literacy



## Facilitating speaker-driven documentation



## Indigenous radio



Pedagogical materials


## Promotion through performance: Tontemboan



Mai cuman-ange, e wa'ilan Kasuruan, Apo' nimema' in tana'! Come eat, o mighty god, ancestor who has cultivated the earth!

## Promotion through performance: Mustang



## Promotion through performance: Irish



Promotion through performance: Nahuatl


Uan tipakiltia ikan motlatzotzontli uan motlahuiltzin Nik tlakatia ipan moaltepemili.
You gladden them with your music and your light. Because they are reborn on your land.

## A sample of endangered languages of NYC

| Language | Area | Family | \# of speakers |
| :---: | :---: | :---: | :---: |
| Livonian | Latvia | Finno-Ugric | 1 |
| Mahongwe | Gabon | Bantu | 1,000 |
| Tsou | Taiwan | Austronesian | 2,130 |
| Mixtec | Mexico | Oto-Manguean | - |
| Amuzgo | Mexico | Oto-Manguean | 23,000 |
| Wakhi | Pakistan \& Tajikistan | East Iranian, Indo-European | 35,000 |
| Shughni | Tajikistan | East Iranian, Indo-European | 35,000 |
| Me'phaa | Mexico | Oto-Manguean | 37,500 |
| Mamuju | Indonesia | South Sulawesi, Austronesian | 60,000 |
| Masalit | Darfur, Sudan | Nilo-Saharan | 60,900 |
| Totonac | Mexico | Tepehua-Totonacan | 120,000 |
| Beria | Darfur, Sudan | Nilo-Saharan | 160,000 |
| Garifuna | Central America | Arawakan | 195,000 |
| Neo-Assyrian | North Iraq | Semitic | 219,000 |
| Kabardian | S. Russia | NW Caucasian | 500,000 |
| Ossetian | S. Russia | East Iranian, Indo-European | 550,000 |

## Where do NYC's threatened languages come from?

- Mexico
- Nepal
- Guatemala
- Sudan
- Central Asia + Caucasus
- Indonesia
- (among many other places)


## Mapping NYC's languages

From Joshua Jelly-Schapiro \& Rebecca Solnit. forthcoming. Cultural Atlas of NYC. Cartographer: Molly Roy


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## Three case studies

A few ways in which three understudied languages contribute to our general understanding of human language: Garifuna, Ikota and Wakhi

## - The Central American region



- The Antilles

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- A shipwreck introduced a free West African population to the indigenous people of the island.
- The island became a contested area as French and English colonial powers extended their reach.


## Garifuna grammar

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# Aríhatina gasígamu 'I saw an armadillo.' 

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## Aríhatina gasígamu 'I saw an armadillo.'

Aríhati Daniel gasígamu 'Daniel saw an armadillo.'

## Garifuna grammar

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'I saw an armadillo.'
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'Daniel saw an armadillo.'
Aríha lumúti Daniel gasígamu
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# Aríha-ti Daniel gasígamu see-3sc.msc Daniel armadillo <br> 'Daniel saw an armadillo.' 

Aríha I-umú-ti
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VERB AUX SUBJECT OBJECT

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## Auxiliaries and verbs

## I will try to eat spinach

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Auxiliaries and verbs
I [will $\longrightarrow[$ try $\longrightarrow[$ to eat $\rightarrow$ spinach $]]]$
(English)
Aku [makan $\longrightarrow$ bayam](Indonesian)Ani [oxel $\rightarrow$ tered]
(Hebrew)Ime [maja mpochi]
(Ikota)

Auxiliaries and verbs
I [will $\rightarrow[$ try $\longrightarrow[$ to eat $\longrightarrow$ spinach $]]]$
(English)
Aku $[$ coba $\longrightarrow[$ makan $\longrightarrow$ bayam $]$
(Indonesian)
Ani [menase $\rightarrow$ [lexol $\rightarrow$ tered] $]$
(Hebrew)$\operatorname{lm} \varepsilon[$ manyeka $\longrightarrow$ [ojaka $\rightarrow$ mpochi] $]$ (Ikota)

Auxiliaries and verbs

## I [will $\rightarrow[$ try $\rightarrow[$ to eat $\rightarrow$ spinach $]]]$ <br> (English)

Aku [akan $\longrightarrow[$ coba $\longrightarrow[$ makan $\longrightarrow$ bayam $]]]$
(Indonesian)
Ani $[$ hayiti $\rightarrow[$ menase $\rightarrow[$ lexol $\rightarrow$ tered $]]]$
(Hebrew)
Im $\varepsilon[$ mejaka $\longrightarrow[$ onyeka $\longrightarrow[$ ojaka $\rightarrow$ mpochi $]]]$ (Ikota)

## Head-complement order and "cross-categorial harmony"

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- Categories thought to be in a head-complement relation:

| VERB | $\longrightarrow$ OBJECT PHRASE | eat $\rightarrow$ spinach |
| :--- | :--- | :--- |
| PREPOSITION | $\rightarrow$ NOUN PHRASE | to $\rightarrow$ New York |
| MATRIX VERB | $\rightarrow$ SUBORDINATE VERB | try $\rightarrow$ to eat |
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- Head-final orderings:

| OBJECT PHRASE | $\leftarrow$ vERB | spinach $\leftarrow$ eat |
| :--- | :--- | :--- |
| NOUN PHRASE | $\leftarrow$ POSTPOSItION | New York $\leftarrow$ to |
| SUBORDINATE VERB | $\leftarrow$ MATRIX VERB | to eat $\leftarrow$ try |
| VERB | $\leftarrow$ AUXILIARY | eat $\leftarrow$ will |

## Back to Garifuna

- Some of these correlations are stronger than others. One of the strongest was:

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\text { Verb } \leftrightarrow \text { Aux } \quad: \quad \text { Object } \leftrightarrow \text { Verb }
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- But this is exactly the pattern that Garifuna breaks:
[[Aríha $\leftarrow$ l-umú-ti] $\rightarrow$ gasígamu] see AUX armadillo
'He saw the armadillo.'


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The fact that it is possible but unique underscores the distance between attested languages and learnable languages.


The strongest conclusion is that the word order correlations discovered by Greenberg are not a hard-wired part of the human language faculty but rather due to something else.

## Ikota background

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- Understudied and marginalized within Gabon.
- Few speakers in the United States



## Some ways of forming questions

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John ate beans． What did John eat $\qquad$ ？

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\begin{aligned}
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$$

－Movement of question word to the beginning of the sentence，as in English：
John ate beans． What did John eat $\qquad$ ？
－Movement of question word next to the verb：（Aghem，Ossetian， Basque）

Maria Alan－ə fættə
Maria Alan－Acc see．PST
＇Maria saw Alan＇

Alan－ə tfi fættə？
Alan－Acc who see．PST
＇Who saw Alan？＇

## Asking questions in Ikota

- In the vast majority of the world's languages, question words either stay where you would expect them (as in Chinese, Japanese, Turkish) or they move to the beginning of the sentence (as in English, German, Spanish, Arabic).


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> Izanga amokwa kreyon
> Izanga took pencil
> 'Izanga took the pencil'
> ___ amokwa kreyon iza? took pencil who
> 'Who took the pencil?'

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## You ate WHAT?

- which is actually the Chinese no movement pattern.
- This is clear when we look at subject questions:

WHO said that?
but not,
*___ said that WHO?

## Asking questions in Ikota

Izanga e-nyamwa-ka ime yana o-عlongw lzanga will.help me tomorrow in-house 'Izanga will help me in the house tomorrow.'

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Izanga e-nyamwa-ka ime yana o- $\varepsilon$ longwe Izanga will.help me tomorrow in-house 'Izanga will help me in the house tomorrow.'
enyamwaka ime yana o- $\quad$ mengwe iza?
will.help me tomorrow in-house who
'Who will help me in the house tomorrow?'

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## Izanga anyeka inyamwaka ime Izanga tried to.help me 'Izanga tried to help me.'

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___ Anyeka inyamwaka ime iza? tried to.help me who
'Who tried to help me?'

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ya Bela aja alakol inde?
Bela eats at.school what
'What is it that Bela eats at school?'

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- When we look at object questions, something extra turns up in the beginning of the sentence. Compare:
- Bela aja mpochi alakol. Bela eats spinach at.school
'Bela eats spinach at school'
$-$ ya Bela aja alakol inde? Bela eats at.school what
'What is it that Bela eats at school?'
- It turns out that what Ikota is doing is more similar to (a) than (b).
a. [The one who] helped me is who?
b. ___ helped me who?


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- It's conceivable that this pattern could replace a simpler pattern over time.
- Ikota still disproves the surface generalization that question words never gravitate towards the end of the sentence.
- The problem now becomes:

Why does only one language in the world require a pattern for questions such as: The one who helped me is who?

## Wakhi background



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## Wakhi background


photo credit: Nazir Abbas

- An Iranic language sometimes classified as "Pamiri", spoken by roughly 58,000 people.


## Case systems: Latin

- Case is assigned by verbs and adpositions to their complements as well as assigned "by position" to things like subjects and possessors.


## Brutus venit.

Brutus.nom comes
'Brutus comes.'
Égo Brutum video.
1sg.nom Brutus.Acc see.1sg
'I see Brutus.'
Et tu, Brute!
and you, Brutus.voc
'Even you, Brutus!'

## de Brutō

about Brutus.ABL/DAT 'about/to Brutus'

## Brutī.

Brutus.gen
'belonging to Brutus'

## Case systems: function

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$$
\begin{aligned}
& \text { English } \\
& \text { The dog bit John } \\
& \text { *John the dog bit. } \\
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English<br>The dog bit John *John the dog bit. *Bit the dog John.

Russian
rabotu vypolnil Sereža.
work-Acc fulfilled Seriozha-NOM
'Seriozha did (his) work.'

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| English | Russian |
| :--- | :--- |
| The dog bit John | rabotu vypolnil Sereža. |
| *John the dog bit. | work-Acc fulfilled Seriozha-NOM |
| *Bit the dog John. | 'Seriozha did (his) work.' |

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\begin{array}{ll}
\text { English } & \text { Russian } \\
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$$

- It comes as a surprise then that Chomsky argued that the design of grammar has little to do with its role in communication.
- More specifically, avoiding ambiguity was not considered a major factor in the grammar of human languages.


## Different types of case systems

- NOMINATIVE-ACCUSATIVE
- ERGATIVE


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- NOMINATIVE-ACCUSATIVE
- Mary arrived.
- ERGATIVE
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- NOMINATIVE-ACCUSATIVE
- Mary arrived.
- Mary saw Lisa
- ERGATIVE
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- man-AbS arrived Aux 'The man has arrived.' gizona-k mutila- $\varnothing$ ikusi du
- man-erg boy-Abs saw aux
'The man saw the boy.'


## The Wakhi case system

|  | 1sG (I) | 2sG (you) |
| :--- | :--- | :--- |
| NOMINATIVE | wuz | tu |
| OBLIQUE | maz | to/taw |

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- NOM-ACC in the present tense
wuz=s gefs-am
1SG.NOM=PROG run-1sG
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wuz=s to win-am
1sG.NOM=PROG 2sG.obl see-1sG
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- OBL-OBL in the past tense

$$
w u z=m \quad \text { gefst }-\varepsilon
$$

1sG.NOM=1sG run.PST-PST
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$\mathrm{wuz}=\mathrm{S}$ to win-am
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'I ran.'
maz to wind
1sG.obl 2sG.OBL see.PST
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\mathrm{wuz}=\mathbf{S}
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gefs-am
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- obl-obl in the past tense

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1SG.NOM=1sG run.PST-PST
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maz to wind
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'I saw you'

- Case serves no function!


## Double oblique

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clause
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- Of all patterns that distinguish two cases, only the "double oblique" or "transitive" pattern is inherently non-informative.
- So anti-functional systems are rare but possible!
- An improbable but possible human language.


## Conclusion



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- Theoretical linguists try to account for the outside circle.


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- With Wakhi, we saw a pattern that makes a mess of many theories of case marking.


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- For linguists, there's still a long way to fully understand the limits of linguistic diversity.


## Thanks for listening!



