

# On a Language With Adverbials

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- Part 1: Engineered Languages
- Part 2: Natlang Motivation
- Part 3: A Conlang with Adverbials

# Part 1: Engineered Languages

# Engineered Languages: 'Engelangs'

- *Explore* possibilities of language: grammar, phonology, etc.
- Thought *experiments*,
- Often *extreme*:
  - highly *regular* vs. highly *irregular*
  - highly *reduced* vs. highly *loaded* with everything
- May be very *abstract*,  
e.g. formally grounded on linguistic models,  
e.g. on predicate logic and derivatives.

# Possible Purposes

- Personal *fun* playing with grammar,  
⇒ there is no '*wrong*'
- *Explore* linguistic corner cases
- Test what human *brains* are able to do
- Provide an international auxiliary language (*IAL*):  
Usual goal: the 'easiest' language,  
⇒ easily cause argument about what may be '*wrong*'.

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This talk focuses on an *abstract, personal thought experiment*.

## Design Goals:

- Find and manifest all possible categories in language,
- Short words, high semantic density, complex phonology,
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*Oumpeá äx'ääjuktëx.*

'On the contrary, I think it may turn out that this rugged mountain range trails off at some point.'



## Design Goals:

- Idea: aliens might use a more computer-like grammar,
- Fully stack-based grammar like Forth computer language,
- A natural language different from human languages.

# Engelang Example: Fith (Jeffrey Henning)

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- Idea: aliens might use a more computer-like grammar,
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hen	$\xrightarrow{\text{push}}$	hen
fat	$\xrightarrow{\text{modify}}$	fat hen
the	$\xrightarrow{\text{modify}}$	the fat hen
box	$\xrightarrow{\text{push}}$	box the fat hen
the	$\xrightarrow{\text{modify}}$	the box the fat hen
on	$\xrightarrow{\text{modify}}$	on the box the fat hen
is.	$\xrightarrow{\text{reduce}}$	the fat hen is on the box

# Part 2: Natlang Motivation

- 1 Adverbials
- 2 Serial Verb Construction
- 3 Types of Words

# Part 2.1: Adverbials

# What Is an Adverbial?

Adverbials modify sentences:

<b>Take</b>	a sentence:	'I eat.'
<b>Add</b>	an adverbial:	' <i>again</i> '
<b>Get</b>	another sentence:	'I eat <i>again</i> .'

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- Take** a sentence: 'I eat.'
- Add** an adverbial: '*again*'
- Get** another sentence: 'I eat *again*.'

You can do this more than once:

- Add** another adverbial: '*today*'
- Get** yet another sentence: 'I eat *again today*.'

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- Make these the same  $\Rightarrow$  have a *slim* grammar,
- Have only *one type of adverbial* instead of many
- 'Verb + Something' seems to be versatile  
 $\Rightarrow$  Go for something like *participle phrases*

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# English Participle Phrases

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  - ⇒ examples feel bloated
  - ⇒ many variations: 'I eat *enjoying the food*.'

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⇒ examples feel bloated  
⇒ many variations: 'I eat *enjoying the food*.'
- Complex clauses: 'I eat *while the waiter pours me wine*.'  
⇒ We might need more structure... (Later...)

# German vs. English

Different natlangs use different structures:

English: auxiliary verb: 'He *likes to* sing.'

German: lexical adverb: 'Er singt *gerne*.'



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## Transformation:

'He *likes to* sing.' → 'He sings *having joy*.'

# English: Different Possibilities

Similar things use totally different structures:

- 'I sing *reluctantly*.'
- 'I sing *with reluctance*.'
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## Transformation:

*all of the above* → 'I sing *lacking joy*.'

# One Step Towards Goal: Mandarin

Example sentence from Mandarin Chinese:

他 看 書。

Tā kàn shū.

He see book

'He reads a book.'

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Example sentence from Mandarin Chinese:

他 看 書。

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'He reads a book.'

Mandarin adverbs precede the verb:

他 常常 看 書。

Tā *chángcháng* kàn shū.

He often see book

'He often reads a book.'

# Mandarin: Auxiliaries

Example sentence from Mandarin Chinese:

他 看 書。

Tā kàn shū.

He see book

'He reads a book.'

Mandarin auxiliaries also precede the verb:

他 喜歡 看 書。

Tā *xǐhuān* kàn shū.

He like see book

'He likes to read a book.'



# Mandarin: Adverb? Auxiliary?

他 常常 看 書。  
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**Adverbs** and **auxiliaries** are hardly distinguishable in Mandarin.

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**Adverbs** and **auxiliaries** are hardly distinguishable in Mandarin.

**Good, so it's doable in our conlang!**

## Part 2.2: Serial Verb Construction

# Serial Verb Construction (SVC)

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- yet strangely obvious to understand
- often sequence of events
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- English: 'Please go get some coffee.'

- Mandarin:

他 回 來 看 朋友。  
Tā huí lái kàn péngyǒu.  
he return come see friend  
He came back to visit friends.

# Serial Verb Construction: With Objects

Mandarin allows verbs plus objects in serial verb constructions:

他 用 筷子。

Tā yòng kuàizi

he use chopstick

He uses chopsticks.

他 吃 飯。

Tā chī fàn.

he eat cooked\_rice

He eats.

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他 用 筷子 吃 飯。

Tā yòng kuàizi chī fàn.

he use chopstick eat cooked\_rice

He eats *with chopsticks*.



# Serial Verb Constructions: Longer!

他 在 家 常常 用 筷子 吃 飯。  
Tā zài jiā chángcháng yòng kuàizi chī fàn.  
he be-at home often use chopstick eat rice  
At home, he often eats with chopsticks.

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## Conlang Goal:

- Use serial verb construction as the only sentence structure  
⇒ get rid of that **subject!**

## Part 2.3: Types of Words

# Types of Words: 'Lexical Classes'

What kinds of words are there in the lexicon?

## English:

- nouns (ham, eggs, beer, ...)
- verbs (to eat, to drink, to sing, ...)
- adjectives (hungry, thirsty, fast, ...)
- pronouns (he, she, they, we, ...)
- determiners (a, the, that, ...)
- ...

Which class has more words than you can possibly count?

## English:

- nouns (ham, eggs, beer, ...)
- verbs (to eat, to drink, to sing, ...)
- adjectives (hungry, thirsty, fast, ...)

## Mandarin:

- nouns (rice, eggs, beer, ...)
- verbs (to eat, to sing, hungry, fast, ...)

No adjectives? Maybe not. (Compare Japanese, Korean, ...)

# Mandarin: Word Classes

It is difficult to determine word classes in Mandarin:

他 用 筷子。

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He uses chopsticks.

他 有 筷子。

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He has chopsticks.

筷子 很 有 用。

Kuàizi hěn yǒu yòng.

chopstick very have use

Chopsticks are very useful.



Is it clearer in English?

Time flies like an arrow.

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## Conlang Goal:

Have only one open lexical class: *substantives*.

# Part 3: A Conlang with Adverbials

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- Derivation with suffixes (like English: likely**hood**),
- Phonology: simple, standard off-the-shelf 😊,  
good for making a presentation when you're actually too late,  
(There was only a theory before Groningen...)

# Phonology: Substantives

The structure of basic words:

first syl.		other syl.	
	a	mb,nd,ng pl,kl	
p	e	pr,tr,kr	a
t	i	lp,lt,lk	i
k	o	rp,rt,rk	u
	u	ln,rn rs,ts	

pa, pe, pi, po, pu, ta, te, ti, to, tu, ...

pamba, pambi, pambu, pemba, pemi, pambu, ...

panda, pandi, pandu, ... panga, pangi, pangu, ...

tengu, taplu, tandakru, kopru, kutsindi, papru, tarti, tartartartarta, parsas, parsatsi, kolkumbi, ...

*fi*  
parsa = *en*  
asparagus

# Phonology: Suffixes

For a limited set of modifiers:

first syl.		other syl.	
n	a	mb,nd,ng pl,kl	
m	e	pr,tr,kr	a
v	i	lp,lt,lk	i
l	o	rp,rt,rk	u
r	u	ln,rn rs,ts	

-na, -ne, -ni, -no, -nu, ...

-namba, -nambi, -nambu, -memba, -membi, -membu, ...

-nanda, -nandi, -nandu, ... -nanga, -nangi, -nangu, ...

tengu, -raplu, -randakru, -lopru, kutsindi, -napru, -rarti, -rartartartarta,

-narsa, -narsatsi, -lolkumbi, ...

By construction, words can be easily segregated:

tinda ⇒ tinda

tina ⇒ ti=na

parsanandu ⇒ parsa=nandu

tinarsamumbu ⇒ ti=narsa=mumbu

Even if no spaces are written between words:

tindaparsanandatinarsamumbutina

⇒ tinda parsa=nanda ti=narsa=mumbu ti=na

Thus we have a *self-segregating morphology*.



# Substantives

	verbial	nominal
pitsa	being a pizza	pizza
purkingu	being boeuf bourguignon	boeuf bourguignon
kekla	being wine	wine
Pitru	being Peter	Peter
Parsi	being Mary	Mary
to		I/we
ki		you/y'all
fa		he/she/it
kengi	drinking/eating	(process of) drinking/eating
polti	ingested	(process of being) ingested
kolpatri	moving	movement
kalnu	quick	high speed

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From verbial to nominal, the substantive undergoes initial mutation:

p → f

t → s

k → h

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verbial	nominal	English
polti	folti	ingested
to	so	I/we
kalnu	halnu	quick
Pitru	Fitru	Peter
Parsi	Farsi	Mary

# Adverbials: Examples

polti + pítsa → poltífítsa  
ingested + pizza → pizza being eaten

kengi + to → kengiso  
ingesting + I → I eat

kalnu + kolpatri → kalnuholpatri  
quick + movement → quickly

The first sentence:

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kalnu	-kolpatri	kengi	-to	polti	-pitsa
quick	move	ingesting	I	ingested	pizza

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kalnu -kolpatri kengi -to polti -pitsa

quick move ingesting I ingested pizza

'I eat pizza quickly.'



# Wait, where is the subject?

We had to get rid of the subject and now it is already gone!

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We converted 'A eats B' into 'eating A, eaten B'. I.e., from English point of view, there are **active** and **passive** substantives.

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Peter gives the book to Mary

→ taken book, giving Peter, arriving\_at Mary

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⇒ This conlang has no transitive verbs.

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**Whatever!**

compound = substantive + substantive

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t → n

k → v

compound = substantive + substantive

The suffixed substantive undergoes initial mutation:

p → m

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k → v    k → ŋ > ɣ > g<sup>w</sup> > w > v    (cf. Finnish: pukua → puvun)

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verbial	nominal	suffix	English
pitsa	fitsa	mitsa	pizza
kekla	hekla	vekla	wine



# Compounds, Derivation, Suffixes: Examples

kekla + **k**ondu → kekla**v**ondu

wine + red → red wine

l- and r- start suffixes only:

tengu + **l**a → tengu**l**a

water + *generalized* → liquid

# Some More Structure

I love evidence/mood particles!

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⇒ Many of my conlangs have evidence/mood particles

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⇒ **This conlang has evidence/mood particles.**

# Some More Structure

I love evidence/mood particles!

⇒ Many of my conlangs have evidence/mood particles

⇒ **This conlang has evidence/mood particles.**

⇒ Each sentence starts with a mandatory evidence/mood particle.

# What Are Evidence/Mood Particles?

A class of words that clarifies the *purpose* or *viewpoint* of the utterance.

- Why did you say that?
- Where does the information come from?

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## Examples:

pi	experience	this information is first hand experience
turnu	hearsay	I heard this information, someone told me
pumbi	interrogative	this is a question (cf. Japanese かな <i>ka</i> )
torturpa	optative	this is a wish
peltu	declaration	I declare this
kilta	intuition	this describes my current feeling/mood
korki	instinct	this is what my gut tells me

...

# Correction of First Example

The first sentence again:

**Pi kalnuholpatri kengiso poltifitsa.**



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The first sentence again:

**Pi kalnuholpatri kengiso poltifitsa.**

pi	kalnu	-kolpatri	kengi	-to	polti	-pitsa
<i>experience</i>	quick	move	ingesting	I	ingested	pizza

'[My experience is that] I eat pizza quickly.'

# More Evidence/Mood Examples

## **Peltu kirsuso ...**

peltu      kirsu                      -to

*declare*   asking/begging    I

'I hereby ask, ...'

'..., please'

# More Evidence/Mood Examples

## **Peltu kirsuso ...**

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pumbi kengi -ki

*question* ingesting you

'Would you like to eat or drink anything?'

# More Evidence/Mood Examples

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'I hereby ask, ...'

'..., please'

## Pumbi kengihi?

pumbi kengi -ki

*question* ingesting you

'Would you like to eat or drink anything?'

## Pumbi poltisengularulti?

pumbi polti -tengu =la =rulti

*question* ingested water *generalize* which?

liquid

'What would you like to drink?'

## **Peltu kirsuso korki poltifitsa.**

peltu      kirsu      -to      korki      polti      -pitsa

*declare*    asking    I      *instinct*    eaten    pizza

'I hereby ask, my gut tells me a pizza is eaten.'

'I'll have a pizza, please.'

## Simple subordination: more serial verbs

### **Peltu kirsuso korki poltifitsa.**

peltu      kirsu      -to      korki      polti      -pitsa

*declare*   asking   I      *instinct*   eaten   pizza

'I hereby ask, my gut tells me a pizza is eaten.'

'I'll have a pizza, please.'

Evidence/mood markers also marks the start of clauses

⇒ new clause can be started with another evidence/mood marker.

# Lesson: At the Restaurant

**Peter:** Mary, do you like this restaurant?

**Mary:** Yes, let's go in.

*They go in and sit down at a table.*

**Waiter:** What would you like to drink?

**Peter:** Red wine and water, please.

**Mary:** So, I will have to drive?

*Mary sighs*

Only water for me please.

*After a while...*

**Waiter:** What would you like to eat?

**Mary:** Boeuf Bourignon for me, please.

**Peter:** I think I will have a pizza.

...

# Lesson: In Front Of the Restaurant

## **Torturpa kalpangufarsi pumbi pultuhenginembi?**

torturpa kalpangu -parsi pumbi pultu -kengi =tembi  
*optative* listening Mary *question* liked ingesting place

'Let Mary listen: is the ingestion place liked?'

'Mary, do you like the restaurant?'



# Lesson: In Front Of the Restaurant

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torturpa kalpangu -parsi pumbi pultu -kengi =tembi  
*optative* listening Mary *question* liked ingesting place

'Let Mary listen: is the ingestion place liked?'

'Mary, do you like the restaurant?'

## **Kilta terkafu. Po tursohotsi!**

kilta terka -pu po turso kotsi  
*intuition* good do *imperative* going\_to inside

'Seems like a good action to me. Let us go to the inside.'

'Ok, let's go in.'

...

## **Peltu kirsuso**

peltu kirsu -to

*declare* asking I

'I ask, ...'

## **korki poltiheklavondura sengu.**

korki polti -kekla =kondu =ra -tengu

*instinct* ingested wine red and water

'... my gut says, red wine and water are ingested.'

'I'll have red wine and water, please.'

# Lesson: In the Restaurant

The rest of the dialog is homework.

# What is missing?

Material for the next talk:

- Relative clauses,
- Complex adverbial clauses,
- Possession,
- ...
- ...

# Thank you!

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