

Kebei

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1 Task Description

1.1 Culture

The language is spoken in a futuristic society among the passengers of a generation ship (https://en.wikipedia.org/wiki/Generation_ship) or the first generation to set foot on the destination planet.

1.2 General

Make an a priori naturalistic language (the setting is too far into the future for there to be any similarity to current human languages).

1.3 Phonology

The language must employ lexical or grammatical tone in some way. Pitch accents are allowed. The language must have at least four major places of articulation, and no major PoAs further back than velar. A major PoA is here defined as contrasting at least three manners of articulation.

1.4 Grammar

- The language must deviate in some way from plain accusative alignment.
- The language must not make use of Particle Comparatives (<http://wals.info/chapter/121>).
- The language must make use of non-concatenative morphology, and must have some irregularities.
- Number distinction different from singular vs plural

1.5 Challenges

The first is mandatory; the rest is optional stuff for if you get bored, but I encourage you to at least do the second one as well.

1. Showcase your language. In particular, show how you dealt with each of the constraints given.

2. Translate 5 random sentences from the syntax test list. You can get these by typing the command =syntaxtest in our discord server. The translations should contain /phonemic/ and [phonetic] transcriptions, a gloss (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>) and commentary on interesting structures if there are any.
3. Devise a kinship system for the language.
4. Devise a system for measuring time, both on the short scales (hours...) and the large scales (centuries...)
5. Design a writing system for your language. Assuming your setting is purely sci-fi, justify why they aren't using the latin (or some other modern day earth) script.
6. If you're still bored, come up with a challenge to add to this list so other people don't get bored.

2 Culture

The generation ship set off from earth following the result of some planet wide catastrophe.

The ship was designed for a long distance voyage to a planet selected to likely have become habitable by the time the ship reached it.

The ship set off with 200 passengers, 100 male, 100 female, each passenger was placed into one of 5 categories based on a aggregate genetic score calculated by a physical and gene sequencing scan. This was done to enforce rules allowing for eugenic processes limiting the population and causing positive genetic drift (in terms of ability to survive).

The ship was designed to sustain 500 passengers.

People are forbidden from having children such that the sum of their value (1 being most genetically fit, 5 being least) is greater than 6.

At birth, a child's genetic information is sequenced and a computer gives it's genetic aggregate score. It is then placed based on position in percentage of the population into one of the 5 numbers. If a child is born with lower genetic aggregate score than everyone currently on the ship it is marked for sterilisation and given a number "7" which bans it from procreation. If a child is born with a higher genetic aggregate score than the rest of the population it is numbered "1".

Kinship is based on the caste of family members relative to you, their generation, and their gender.

	Male			Female		
	Lesser	Equal	Greater	Lesser	Equal	Greater
Your Parents Generation	hoh	xeti	xehpe	pekei	'ou	dei
Your Generation	poi	gei	fex	foix	nof	foi
Your Children Generation	demus	pot.i	hus.fe	peuqou	neuxeu	'outes.

Table 2.1: Kinship System

3 Phonology

3.1 Consonant

	Labial	Alveolar	Palatal	Velar	Glottal
Nasal	/m/ <m>	/n/ <n>	/ɲ/ <ɲ>	/ŋ/ <q>	
Plosive	/p/ 	/t/ <d>	/c/ <ɟ>	/k/ <g>	/ʔ/ <'>
Ejective	/p'/ <p>	/t'/ <t>	/c'/ <ɟ̥>	/k'/ <k>	
Fricative	/f/ <f>	/s/ <s>	/ç/ <ʝ>	/x/ <x>	/h/ <h>

Table 3.1: Consonant Chart

3.2 Vowel

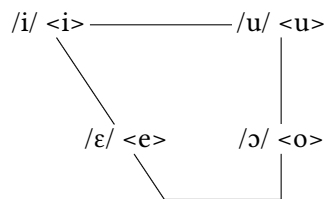


Table 3.2: Vowel Chart

All four vowels also distinguish phonemically rhotacisation, and there are 4 diphthongs: /ɛi/, /ɛu/, /ɔi/, /ɔu/.

Diphthongs are written by placing the two vowels adjacent to each other, rhotacisation is written by having the second vowel be an <e>.

This gives a total of 12 distinct vowels.

Vowels also can have two tones, high or low, where high is marked with diaeresis, in diphthongs a single overdot over each of the vowels, i.e. <ë>, <ùè>, <òù>

3.2.1 Phonotactics

CVF where C is consonant, V is vowel, and F is fricative consonant.

4 Grammar

There are 2 grammatical categories in Kebei. These are Nouns and Verbs; Adwords (Adjectives, Adverbs) behave as verbs.

4.1 Nouns

4.1.1 Plural / Dual

Plurality and Duality are marked by rhotacisation of vowels. If a word is singular it takes no rhotacisation on its vowels, if it is dual then the final vowel on the word stem is rhotacised. If it is plural then the initial vowel on the word stem is rhotacised. One syllable words show only singular/plural distinction, if a vowel is a diphthong no distinction is made.

<ʒe> /çɛ/ “Adult Man”

<ʒee> /çɛˀ/ “Adult Men”

<dux’usu> /duxʔusu/ “One Flatbread”

<dux’usue> /duxʔusuˀ/ “Two Flatbreads”

<duex’usu> /duˀxʔusu/ “Many Flatbreads”

There are a number of irregularities to this pattern however, for example the word <guhoi> means ‘Stars’ plural and not <guehoi> and its singular form is <peufif> ‘Start; Point’.

4.1.2 Semantic Roles

Verbs use tones to make for valency, the valency of the sentence determines the tone patterns available to mark for varying semantic roles.

The general morphosyntactic alignment of Kebei is ergative-absolutive-secundative. This is graphically shown in Figure 4.1 where Red is a low tone, green is a high initial tone, and blue is a high final tone.

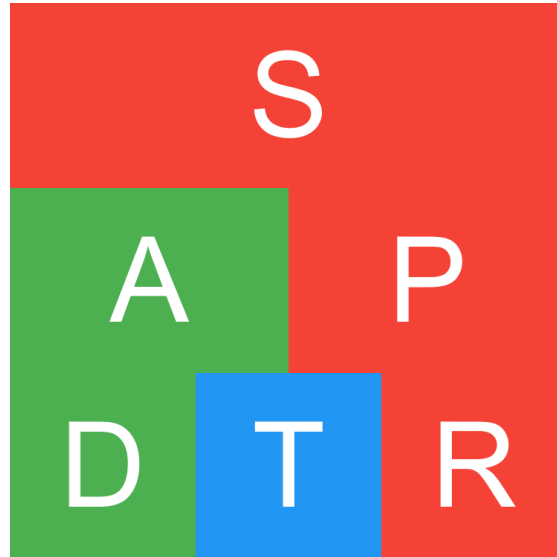


Figure 4.1: Ergative-Absolutive-Secundative Alignment

For monosyllabic words in trivalent sentences, <'ux> is appended if the word is an agent, and <su> is appended if the word is a patient.

Topicalisation is done by backing the topic of a sentence.

4.1.3 Pronouns

Pronouns are determined by caste. They fall into 8 main groups. A special pronoun that is used to refer to caste 0 individuals, a special pronoun that is used to refer to caste 7 individuals and non human entities, and 6 pronouns that are determined by relative caste, separated by lesser, equal, greater, and by the legality of any children you could have.

Table 4.1: Pronoun Table

	Caste 0	Greater		Equal		Lesser		Caste 7 / Non Human
		Legal	Illegal	Legal	Illegal	Legal	Illegal	
1	kofku	xi	xe	poudu	'e	noifşef	hehmei	beis
2	houqeu	bedeif	sou	ti	'uhou	'e'euf	'ehfeu	gi
3	boipi	'i	teu	teuni	de	qogu	keneu	neu

4.1.4 Noun Phrase Construction

Noun phrases are right branching appending information to nouns. There are a number of words that can be used as a part of this. Largely involves some form of dependency where one noun depends upon another noun with a relationship. The most trivial of these is possession “i.e. my flatbread” can be analysed as “flatbread of mine”. This is done with the word <qe>. i.e.

Another word used in noun phrase construction is <tu> “and”. Marking both the noun phrase to it’s left and the noun phrase to it’s right as filling an equal role in the sentence. Both should be marked tonally as the same semantic role.

To assign number to a noun, the word <pu> “count” is used followed by a number. Numbers are base 8 and numbers above multiples of 10_8 are written by placing the multiple before the word, this continues for higher exponents. i.e. 3700106_8 is <xei-fiqueu-bi-xefmei-poife-gi>.

0	gei
1	ṅof
2	dogo
3	xei
4	pouse
5	tihno
6	gi
7	bi
10	mei
100	poife
1000	difeix
10000	ṭeidoṣ
100000	xefmei
1000000	fiqueu

Table 4.2: Number System

i.e. ‘6 men’ is <ṣe pu giṣo>. You can also use the word <meih> to mean ‘all’ with <pu>

Different parts of an object are specified with <peu> “location”. For example “Tabletop” <ṅegei peu pes>.

If additional information is being provided about a noun, such as defining it or giving a description, then the word <nu> “info” is used.

4.2 Verbs

4.2.1 Valency

Verbs use tone to mark valency. The following rules are used for the number of the valency

1. Final syllable high tone, append <go> if not enough syllables
2. Initial syllable high tone, append <he> if not enough syllables
3. Intial and Final syllable high tone, append <me> if not enough syllables

4.2.2 Polypersonal Agreement

Verbs mark polypersonal agreement. This is done through agglutination of the following parts.

	Superior	Inferior	Non Human
Superior	ḡo	ḡoi	xous
Inferior	hoif	tei	peu
Non Human	toi	'uh	te

Table 4.3: Polypersonal Agreement, Source on Left, Target on Top

Derivational Morphology

The <go> prefix denotes the undoing of an action. i.e. <kenéḡo> “I go” vs <gokenéḡo> “I return”.

4.3 Temporal Constructions

Temporal constructions are placed before the verb in a sentence. The default unmarked temporal construction is the present imperfective. There are no specific words for tense, however a time or date or relative construction (last week) can be given followed by an aspect marker (imperfective, perfective, prospective, retrospective, completive, inceptive, progressive, punctual).

imperfective – \emptyset

perfective – xeu

prospective – kuxqoi

retrospective – ḡei

completive – soi

inceptive – ḡoi

progressive – moḡpeudo

punctual – doideinoi

5 Lexicon

5.1 B

beṣṭe (*n.*) Shirts

5.2 D

dux'usu (*n.*) Flatbread

5.3 Ḍ

ḏepoih (*n.*) Storage Unit

5.4 F

fof (*n.*) Trinket; Small object of purely sentimental value

5.5 G

guhoi (*n.*) Stars (plural)

5.6 H

heiṭou (*n.*) Robot

5.7 K

keneu (*n.*) A lower caste citizen than the speaker far enough such that they are illegal to procreate with

kihqeh (*v.*) 1: (S) go
2: (A) go to (P)
3: (D) go to (R) via (T)

kufou (*n.*) Friend

5.8 M

miqei (*n.*) Here

mudeu (*v.*) 1: (S) stores
2: (A) stores (P)
3: (D) stores (T) in (R)

mune (*v.*) 2: (A) calls for (P)

5.9 N

neisonex (*v.*) 1: (S) exists
2: (A) has (P)
3: (D) gives (T) to (R)

noihu (*v.*) 1: (S) jumps
2: (A) jumps to (P)
3: (D) jumps to (R) from (T)

5.10 Ṇ

negei (*n.*) Table

5.11 P

pes (*n.*) Top

peuff (*n.*) Point; Dot; Star

5.12 Q

qeneu (*n.*) Undergarment; Lingerie

qogu (*n.*) A lower caste citizen than the speaker that is still legal to procreate with

5.13 S

sipeu (v.) 1: (S) shines
2: (A) shines on (P)

5.14 Ş

şe (n.) Adult Man
şihboi (n.) Trousers; Leggings

5.15 X

xeusbu (n.) Clothes

6 Challenges

6.1 Language Showcase

The entirety of this document serves as an answer to challenge 1.

6.2 Syntax Tests

For the purposes of these syntax tests, it will be assumed that the speaker, and any people references, are a caste 3 citizen.

6.2.1 Bring your friends with you.

/k'ihɣehxous t'i miɣei moʃpeuto neisonëx=ɔo t'i t'u k'u'fou ɣe t'i/

This gloss demonstrates the use of the progress aspect to construct temporal clauses. The verb phrase preceding it is said to be the “case” of what follows in it’s aspect. Here, preceding is ‘you go to here’ and proceeding is ‘exist with your friends’

(1) kihqeh=xous tī miqei moʃpeudo neisonëx=ɔo tī tu
2V\go=SUPC>NONH A\SG\2.ELC P\SG\here PROG 1V\exist=SUPC>SUPC S\SG\2.ELC and

kuefou qe ti
s\PL\friend of SG\2.ELC
'Come here with your friends'

The robot jumped onto the table.

/nóihut'ε pekei p'εu p'εs héic'ou/

(2) nóihu=te ɳegei peu pes héiɣou
2V\jump=NONH>NONH P\SG\table location top A\SG\robot
'Robot jumps onto table'

This shows the usage of <peu> to mark relative locations to objects, here, the tabletop.

All of her clothes — tops, leggings, and undergarments — were packed away in a storage unit.

/cei mútéúxous cepɔih xeuspú' p'u meih ɣe c'εuni nu pe'çc'é't'u çiehpóí t'u ɣe'néú/

(3) ɖei müdəù=xous ɖepoih xeusbüè pu meih qe ʃeuni nu
RET 3v\store=SUPC>NONH R\SG\storage_unit T\PL\clothes count all of SG\3.ELC info

beeʃtèè tu ʃiehbòì tu qeenèù
T\PL\shirt and T\PL\trousers and T\PL\undergarment
'All of their clothes — tops, leggings, and trousers — had been stored in a storage unit'

Demonstrates the use of an aspect without a preceding temporal verb phrase, as well as the use of the info connective used to provide additional context.

Come when you are called.

/müne t'i cei k'ihqeh miqei/

(4) müne ti ɖei kihqeh miqei
2v\call_for P\SG\2.ELC RET 2v\go P\SG\here
'When you are called come here'

The stars shone.

/sip'èú kuhçi/

(5) sipèù guhoi
1v\shine s\SG\stars
'Stars Shine'

6.3 Kinship System

The kinship system is described in table 2.1

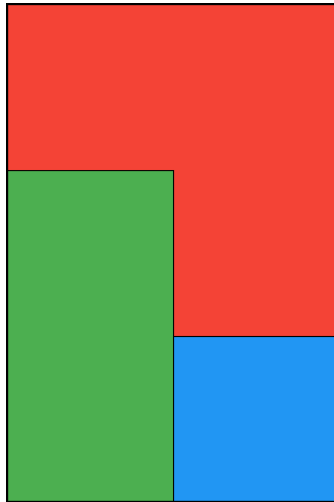
6.4 Time

This challenge was not completed

6.5 Writing System

The writing system is designed for quick digital expression through the computers communication system, it is a featural system based on a 3 by 2 grid and binary phonetic notation.

You can think of the writing system as the following cells



Red represents the place of articulation, green represents the manner of articulation, and blue is a special point used to mark vowels. The four places of articulation are numbered front to back

- 000 – Labial
- 001 – Alveolar
- 010 – Palatal
- 011 – Velar
- 100 – Glottal

These arranged clockwise from the top left.
The four manners of articulation are numbered

- 00 – Nasal
- 01 – Plosive
- 10 – Ejective
- 11 – Fricative

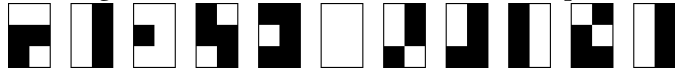
If the final cell is low, it is a consonant, if the final cell is high, then the pattern of cells determines the vowel according to the following pattern (read left to right, top to bottom). The very first cell represents a high or low tone.

- 010101 – i
- 010111 – u

001101 – e

011011 – o

Meaning the text 'Stars shine' is written in script as



7 List of Glossing Abbreviations

00C	Caste Zero Pronoun
1	First Person Pronoun
1V	Monovalent / Intransitive
2	Second Person Pronoun
2V	Divalent / Transitive
3	Third Person Pronoun
3V	Trivalent / Ditransitive
A	Agent
CPL	Completive Aspect
D	Donor
DL	Dual
EIC	Equal Illegal Caste
ELC	Equal Legal Caste
GIC	Greater Illegal Caste
GLC	Greater Legal Caste
INCP	Inceptive Aspect
INFC	Inferior Caste
IPFV	Imperfective Aspect
LIC	Lesser Illegal Caste
LLC	Lesser Legal Caste
NHC	Non Human / Caste 7 Pronoun
NONH	Non Human Caste
P	Patient
PFV	Perfective Aspect
PL	Plural
PROG	Progressive Aspect
PRSP	Prospective Aspect
PUNC	Punctual Aspect
R	Recipient
RET	Retrospective Aspect
S	Subject
SG	Singular
SUPC	Superior Caste
T	Theme