## Unilingua

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## 1 Introduction

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Unilingua (aka Mirad) is an artificially-constructed auxiliary language (conlang) developed and published by Paris-based author Noubar Agopoff as a serious medium for easy and logical international communication. Mirad is categorized by constructed language afficionados as philosophical because its vocabulary is mapped letter-by-letter to a semantic ontology or thesaurus. Also, the wordstock of Unilingua is considered a priori, that is, there is no deliberate association with words or roots in existing natural languages. The vocabulary is "from scratch", yet based on internal lexical and semantic rules that help the learner to construct and deconstruct derivations logically, mnemonically, and consistently.

For some odd reason, the author of this language called it the Latinesque name "Unilingua." In this revision of the language, the name will be the more internally consistent Mirad (pronounced mee-RAHD), which means world language (mira $=$ world's $+\mathbf{d}=$ speech.) The proximity to the Russian word for 'world' (мир) is pure coincidence; the vocabulary of Mirad, as stated above, is not based on or related to any existing human language.

## 2 Basics

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## Principles

TThe author claims in his book Unilingua -- Langue universelle auxiliaire that this language is well-suited for universal, logical communication because it is based on principles already exploited globally by sciences like mathematics and chemistry where symbolic formulas are constructed in accordance with strict rules and a limited sequence of symbols understood by all practitioners.

Unilingua, according to Agopoff, is based on the following principles: ]

- Every vowel has numeric, vectorial, scalar, or semantic value.
- Every consonant is semantically taxonomic.
- Word derivation is systematic, consistent, analogical, and mnemonic.
- Words are as ontologically unambiguous as possible.
- Words are as short and as easy to pronounce as possible.
- Inflection and derivation of words is regular and predictable.

Conlang afficianados, note: Unilingua is not strictly a logical language in the Sapir-Whorf sense. It is meant to be more practical, natural, and humanlyusable. Unilingua is logical in the more usual sense that it is systematic, regular, and predictable.

## Alphabet

The Mirad alphabet has both lower-case and upper-case letters. The alphabet has the same base letters as Latin or English, except that the letters $\mathbf{Q q}, \mathbf{X x}$, and Yy are considered non-native and are used only in foreign names and borrowings. Also, the letters $\mathbf{H h}$ and $\mathbf{W w}$ are additional to Agapoff's original Unilingua alphabet and are unique in that they have no inherent semantic values; they are used for various grammatical-only purposes. A unique feature of Mirad is that every native letter is a semantically-significant atom in the language and can be thought of as bricks in lexical construction. See \#Wordbuilding

The order of the native alphabet is as follows:

## 

The above lower-case letters can also be represented as upper-case letters. In Unicode representations and indexing, the uppercase graphemes precede the lowercase values. Uppercase letters are used much as in American English, that is, for the first letter in sentences, proper nouns, etc. See \#Orthography for more details. As mentioned above, the Mirad grapheme $\mathbf{W w}$ is additional to the letters
in the original Unilingua and is used to form the passive voice of verbs. Foreign names and borrowings sometimes also incorporate $\mathbf{H h}, \mathbf{Q q}, \mathbf{X x}$, and $\mathbf{Y y}$.

## Consonants

The following are classified as consonants:

## bcdfghjklmmprstumz

*Note: The author of Unilingua did not include the letters Hh or Ww as native graphemes. They have been added in Mirad in order to encompass word structures not included by Agapoff, in addition to interjections and foreign names. See more on this under \#Vowels.

## Vowels

Vowels, or more accurately, vowel nuclei consist of plain vowels and yodified vowels, that is, vowels that have a y-glide sound before, after, or around them. A synonym of yodified is palatalized.

The plain vowels are (only miniscules listed here):

## aeiou

The yodified vowel nuclei are:
á é í ó ú (pre-yodified)
à èì ì ù ù (post-yodified)
âêîô $\hat{\mathbf{u}}$ (circum-yodified)
Note: The author of Unilingua used non-Roman letters to represent some of the pre-yodified vowels ( $\boldsymbol{я}={ }^{\prime}, \mathbf{e}=$ é, $\boldsymbol{\varnothing}=$ ó, and $\boldsymbol{ю}=$ ú. The author employed a hacek (called ille in French) over the vowel to represent post-yodification (ă $=\grave{a}$, $\check{\text { é }}=\grave{e}$, etc.). This revised Mirad textbook, however, uses the acute accent (as in French été) for the pre-yodified vowels, the grave accent (as in French père) for the post-yodified vowels, and the circumflex accent (as in French fête) for the circum-yodified vowels. It must be remembered, however, that á, $\hat{\mathbf{o}}$, and other yodified vowels are considered single vowels or vowel nuclei in any analysis of the language, not dipthongs or tripthongs). In other words, the accents are merely graphemic devices to distinguish vowels qualitatively, and thereby semantically.

## Orthography

## Punctuation

Despite Agapoff's idiosyncratic system of punctuation, the punctuation symbols and usage in Mirad are just like those of American English.

## Capitalization

Capitalization in Mirad follows the same rules as in English. European learners need to be especially careful to capitalize the first letter of the names of languages, nationalities, and inhabitants, which in most European languages are left in lowercase.

Note the following examples. The words are all capitalized because the root word is the name of the country China:

| Mirad | English |
| :--- | :--- |
| Kin | China |
| Kina | Chinese (people or nation) [adj.] |
| Kinad | Chinese (language) [n.] |
| Kinada | Chinese (language) [adj.] |
| Kinadè | in Chinese [adv.] |
| Kinut | Chinese person |
| Kinadaer | to speak Chinese (pronounced: kee-nah-dah- |
| EHR) |  |

## Pronunciation

## Consonant sounds

This chart shows the closest phonetic approximations of the Mirad consonant graphemes in English and some other familiar languages, along with the exact value in IPA (International Phonetic Alphabet):

| grapheme | IPA | English | American Spanish | French | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| b | b | $\underline{\text { bee }}$ | bien | bon |  |
| c | s | see | hace | garcon | Watch out! Sounds like "s". |
| d | d | dog | dos | de |  |
| f | f | foo | fiesta | fou |  |
| g | g | goo | goma | gant | Always hard. |
| h | h | how | jota | -- | Closer to the English value. |
| j | 3 | mirage | -- | jour | As in "Dr. Zhivago. |
| k | k | skate | casa | comment |  |
| 1 | 1 | law | la | les |  |
| m | m | $\underline{\text { moo }}$ | $\underline{\text { mi }}$ | mon |  |
| n | n | $\underline{\text { no }}$ | $\underline{\text { no }}$ | non |  |
| p | p | spoon | poco | peu |  |
| r | r | -- | toro | -- | Dental flap or trill |
| s | s | shed | -- | chaise | A fricative "sh" sound! |
| t | t | steak | tú | ton |  |
| v | v | vie | -- | va |  |
| w | w | woo | Juan | oui |  |
| z | z | zoo | -- | zone |  |

Note! Be very careful that the $\mathbf{c}$ and the $\mathbf{s}$ are not pronounced as their English or European equivalents. Think of the $\mathbf{c}$ as being the French c cedilla (ç).

## Simple vowel sounds

a as in Spanish la
e as in French thé
$\mathbf{i}$ as in Spanish sí!
$\mathbf{o}$ as in Spanish no
$\mathbf{u}$ as in Spanish tú

## Pre-yodified vowel sounds

These vowels are pronounced the same as the simple vowel above, but with a yglide at the beginning.
á is like ya as in English yacht
é is like ye as in German jeder or English yes
í is like yi as in French yippie or English ye (without the final y-glide) ó is like yo as in German Joga or English yo-yo (without the final w-glide)

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ú is like $\mathbf{y u}$ as in German Juli or English unit

## Post-yodified vowel sounds

These vowels are pronounced like the simple vowels, but with a y-glide at the end.
à is like ay as in English Thai
è is like ey as in English fey
$\mathbf{i}$ is like iy as in English see
ò is like oy as in English boy
ù is like uy as in English fooey

## Circum-yodified vowel sounds

These vowels are pronounced with a y-glide at both the beginning and end.
$\hat{\mathbf{a}}$ is like yay as in English yikes!
ê is like yey as in English yea!
î is like yiy
$\hat{o}$ is like yoy
û is like yuy
Note the difference in pronunciation between aá, which is pronounced like $A$-ya as in Spanish "playa", and àa, which sounds like $A Y-a$ as in English diagram.)

## Syllabification and Stress

A closed syllable is one that ends in a consonant or a y-glide (i.e., a post- or circum-yodified vowel). A syllable consists of [C]V[C], where V, the vowel nucleus, can begin or end with a y-glide, but contain only one of the set of vowels [aeiou], and where C consists of one or two homorganic consonants, i.e. [bcdfgjknpstvz]+[lrwy].

The rule for stress is: If a word ends in a closed syllable, then the last syllable receives the stress, otherwise, the penultimate (next-to-last) syllable receives the stress.

| spelling | pronunciation | meaning |
| :--- | :--- | :--- |
| gafif | ga-FIF | preference |
| ifla | I-fla | agreeable |
| ánsea | yan-SHE- $a$ | collective |
| manà | ma-NAY | with light |
| Kinadae | ki-na-DA-e | speaks Chinese |


| Kinad | ki-NAD | Chinese (language) |
| :--- | :--- | :--- |
| Hàfa | HAY-fa | (Israeli town of) Haifa |
| gracer | gra-SER | to be extreme |

Every vowel in Mirad is given its full syllabic pronunciation, even when juxtaposed in what English or European speakers might consider dipthongs:

| spelling | pronunciation | meaning | syllable count |
| :--- | :--- | :--- | :--- |
| daea | $d a-\boldsymbol{E}-a$ | speaking | 3 |
| oif | $o-$ If | displeasure | 2 |
| daò | $d a-\mathbf{O Y}$ | without saying | 2 |

## 3 WORD-BUILDING

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## Taxonomic codification of letters

The consonants of root words are taken from a conceptual ontology matrix. For example, all root words beginning with the consonant thave something to do with human beings. Root words containing the consonant $\mathbf{j}$ relate somehow to time.

For example, the following words all contain the consonant $\mathbf{p}$, which indicates motion:

```
zíp travel
jap precedence
tóáp step
zòp regression
pán jump
teap visit
mamp flight
```

Similarly, the following words all end in the consonant $\mathbf{l}$, which indicates liquid:
mil water
vafil wine
mal gas
meil mud
vozil paint
teabil tear
Again, the following words all end in the consonant $\mathbf{m}$, which indicates place, space, location, or position.:
tom residence
cem table
dénam library
tilam bar
epem parking lot
mem country

## Semantic codification of vowels

The vowels in root words have various qualitative and quantitative values based on the following scales:

- Numeric (o 0, a 1, e 2, i 3, etc.)
- Ordinal/hierarchical (o zeroth/toplevel, a first, e second, etc.)
- Qualititive (a/o positive/negative, i/u positive/negative, $\boldsymbol{e}$ neutral)
- Vectorial (a/o up/down, i/u right/left, e middle)
- Natural (a sky, e land, i water, o underground)

The opposite of a word can often be produced by simply changing a vowel to the "opposing vowel from the above list. For example:

- án together $\Rightarrow$ ón apart
- ab on $\Rightarrow \mathbf{o b}$ off
- man light $\Rightarrow$ mon shade
- aga big $\Rightarrow$ oga little
- iga fast $\Rightarrow$ uga slow

Throughout the Mirad word construction scheme, the vowel $\mathbf{e}$ always has a neutral or medial value:

- éb between
- éz inside
- eza moderate
- ge equal
- zem middle
- gé rather
- ev if
- je during
- eb at
- ve maybe

In hierarchical codification, the vowel $\mathbf{o}$ indicates the zeroth or toplevel element of an organization. In a qualitative codification, it has a negative slant. As a prefix, this vowel can also "nullify" a concept as in the following examples:

- tel food $\Rightarrow$ otel hunger
- gela same $\Rightarrow$ ogela different
- tadca married $\Rightarrow$ otadca unmarried
- es function $\Rightarrow$ oes malfunction


## Hierarchical codification with ordinal vowels

Root words related hierarchically or organizationally differ only in their ordinal vowels. By ordinal vowels is meant that the vowels have inherent numerical values ( $\mathbf{o} 0$, a 1, e 2, etc.). The zeroth element of any hierarchy always contains the ordinal vowel $\mathbf{o}$. For example, the words for "duke", "prince", "marquis", and "king" differ only by an enumerative vowel which determines the rank:

[^0]```
udeb baron
ádeb marquis
édeb count
údeb lord
```

For further illustration, we can look at how the concept human being is hierarchically codified using ordinal vowels, where the larger the numeric value of the ordinal vowel, the lower the element is in the semantic hierarchy:
tob human being
tab body
teb head
tib trunk
tub arm

## Scalability With Contrasting Vowels

Words can be semantically constructed along the qualitative scale of "postive", '"neutral", and "negative" through the used of vowels imbued with these values. In Mirad, there are two qualitative vowel series:

| number | positive | neutral | negative |
| :--- | :--- | :--- | :--- |
| 1 | a | e | o |
| 2 | i | e | u |

As implied in the above table, root words with a contrast semantically with those with $\mathbf{o}$ and roots words with $\mathbf{i}$ contrast with those with $\mathbf{u}$. Words with $\mathbf{e}$ are in the middle between the two extremes. The second series does sometimes lacks a middle value. For example:

| series | positive | neutral | negative |
| :--- | :--- | :--- | :--- |
| 1 | va yes | ve maybe | vo no |
| 1 | vay <br> certainly | vey possibly | voy not |
| 1 | aza strong | eza moderate | oza weak |
| 2 | zi right | ze middle | zu left |
| 2 | fia good | fea neither good nor <br> bad | fua bad |
| 2 | iga fast | ega moderate | uga slow |

## Vectorial codification

On the vectorial (or: directional, geo-spatial) scale, the vowels have the following general values (see later for a more detailed explanation):

| positive | neutral | negative |
| :---: | ---: | :---: |
| $\mathbf{a}$ |  | $\mathbf{o}$ |
| up/north/ahead |  | down/south/back |
|  | $\mathbf{e}$ |  |
|  | in/middl <br> $e$ |  |
| $\mathbf{i}$ |  | $\mathbf{u}$ |
| right/east/straigh <br> $t$ |  | left/west/crooke <br> $d$ |

Some examples:

| positive | neutral | negative |
| :--- | :--- | :--- |
| íb $u p$ | éb between | ób down |
| ab on | eb at | úb off |
| zi right | ze in the <br> middle | zu left |
| áber to <br> raise | éber to contain | óber to lower |

In the following examples, the vowels $\mathbf{i} / \mathbf{u}$ and $\mathbf{e}$ take on directional values with respect to the doer of the action:

| bier to take | nier to consume | dier to ask | pier to <br> leave | iper to go <br> away | iber to receive |
| :---: | :---: | :---: | :---: | :---: | :---: |
| beer to keep | neer to conserve | der to say | peer to <br> stay | eper to stop | eber to stop |
| buer to give | nuer to supply | duer to suggest | puer to arrive | uper to come | uber to send |

## Natural (geological) codification

On the natural scale, the vowels have the following values:

| vowel | value | examples |
| :--- | :--- | :--- |
| a | sky/air | mampar aircraft, map wind <br> (current) |
| $\mathbf{e}$ | land/soil | mempar car, mep road |
| $\mathbf{i}$ | sea/water | mimpar ship, mip river |
| $\mathbf{o}$ | undergroun <br> $d$ | mompar subway, mop tunnel |

## Semantic nuancing

Semantic nuances and gradations of quality of words are reflected through the
"lengthening", that is, addition of a harmonic subordinal vowel to the ordinal vowel, yodification (adding $\mathbf{y}$ ) of the ordinal vowel, or the addition of one in a series of intensifying ( $\mathbf{l}, \mathbf{r}$ ) or distinguishing ( $\mathbf{c}, \mathbf{s}, \mathbf{v}, \mathbf{f}$, etc.) consonants, or any of the above techniques in combination. In this scheme, pre-yodification signals a semantic intensification, while post-yodification indicates a weakening or mitigation of sense. A doubling of the vowel usually indicates another kind of lessened strength of the corresponding single-vowel word. Here are some examples:

Post-yodification deintensifies the semantic value of the base word in much the same way as the suffix -ish sometimes mitigates the value of an English adjective.

| normal word | deintensified word |
| :--- | :--- |
| ama hot | àma warm |
| oma cold | òma cool |
| ima wet | ìma humid |
| at vage I want | at vàge $I^{\prime} d$ like |
| at ége I must | at yège I should |
| moza black | mòza blackish |
| e two | è half |
| gla very | glà somewhat |
| mar sun | m\&agreave;r star |
| ifer to love | ìfer to like |
| bók pain | bôk ache |
| tom residence | tòm home |
| dom city | dòm town |
| din story | dìn tale |
| pener to seize | pèner to catch |
| pon rest | pòn respite |

Pre-yodification is sometimes used to intensify the semantic value of the base word:

| normal word | intensified word |
| :--- | :--- |
| om cold | óm ice |
| am heat | ' $\mathbf{m}$ fire |
| ga more | $\mathbf{g}^{\prime}$ most |
| pener to seize | péner to strike |
| pot animal | pót wild animal |
| vaa affirmative | váa true |
| ab on | yab above |


| ze in the middle <br> of | zé through |
| :--- | :--- |
| uba away | úba far |
| bok illness | bók pain |
| paner to move | páner to jump |

The consonant extenders "l" and "r" are sometimes used to intensify the semantic value of the base word.

| normal word | strong | stronger |
| :--- | :--- | :--- |
| bók pain | blók agony | brók torture |
| vag desire | valg yearning | varg craving |
| éga necessary | élga urgent | érga critical |
| péner to hit | pénler to beat | to pénrer smash |
| fúder to <br> offend | flúder to <br> insult | frúder to <br> outrage |
| dier to request | diler to beg | direr to demand |

The ordinal vowel can be extended with a homorganic subordinal vowel in order to add an element of "lengthening" or some other nuance to the meaning of the base word:

| normal word | intensified word |
| :--- | :--- |
| bok illness | book fatigue |
| vager to want | vaager to desire |
| dob state | doob nation |
| dab <br> government | daab <br> administration |
| tob body | toob gender |
| din story | diin recitation |
| béler to retain | béeler to conserve |
| mil water | miil dew |

Here are some examples where all these techniques are employed:

| derived word | method of derivation |
| :--- | :--- |
| bok illness | normal |
| bòk ailment | post-yodification (mitigation) |
| book fatigue | lengthening |
| boòk lassitude | post-yodification (mitigation) |
| bók pain | pre-yodification (intensification) |
| bôk ache | post-yodification (mitigation) |


| bóok <br> suffering | lengthening |
| :--- | :--- |
| blók agony | L-intensification (1st order) |
| brók torture | R-intensification (2nd order) |


| derived word | method of derivation |
| :--- | :--- |
| vager to want | normal |
| valger to yearn for | L-intensification (1st order) |
| varger to crave | R-intensification (2nd order) |
| vaager to desire | lengthening |
| vàger to wish for | post-yodification (mitigation) |
| vaàger to aspire <br> to | lengthening |

The consonants $\mathbf{l}, \mathbf{r}$, and $\mathbf{c}$ are used to differentiate nuances of words, usually in a positive degree of strength. Other consonants can also be used for derivation.

| derived word |
| :--- |
| va yes |
| vaa positive |
| vala sure |
| vàla certain |
| vaala safe |
| vara evident |
| vàra manifest |
| valda |
| certified |
| vàca secure |
| váa true |
| váya genuine |
| váca correct |
| vâca right |
| vába regular |
| vâba statutory |
| váva exact |
| válva perfect |
| váfa precise |
| váta fair |
| váma real |


| váama virtual |
| :--- |
| vâma actual |
| váda frank |
| vála authentic |

## Mnemonic and analogic association

Mnemonics is used to the fullest to associate root words and concepts. For example, the words "neigh", "hehaw", "bark", and "meow" in Unilingua all contain a hint of the animal name with which these are associated. For example:

| animal | sound |
| :--- | :--- |
| épet $d o g$ | épeder to bark |
| apet horse | apeder to neigh |
| ápet pig | ápeder to squeal |

Two or more words are often joined into a single compound, producing a new concept, where the separate elements are suggestive of the meaning of the resulting compound. In some cases, words overlap much like portmanteau words in English (breakfast + lunch $=$ brunch). (Note, for euphony, if the final consonant of the first root word is the same as the initial consonant of the second root word, one of the consonants is dropped.)

| first concept | second concept | compound |
| :---: | :---: | :---: |
| il liquid | pan motion | ilpan wave |
| teac- to see | per to go | teaper to visit |
| dom city | mep way | domep street (not dommep) |
| kum side | mep way | kumep sidewalk |
| zè across | mep way | zèmep bridge |
| zé through | mep way | zémep thoroughfare |
| elám iron | mep way | elámep railroad |
| mag fire | meb mountain | magmeb volcano |
| tóáb foot | per to go | tóáper to walk |
| mic window | nof cloth | micof curtain |
| mac floor | nof cloth | macof carpet |
| bik care | nof cloth | bikof bandage |
| teb head | nof cloth | tef hat |
| \&uacutej- to close | nof cloth | újof fold |
| tom home | nof cloth | tomof tent |
| nun merchandise | par vehicle | nunpar truck |
| pat bird | ij beginning | patij egg |
| án together | iv joy | ániv festival |

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| oj future | nac money | Ojnac credit |
| :---: | :---: | :---: |
| ej present | nac money | ejnac cash |
| vé relative | naz value | vénaz coefficient |
| ke-to seek | bier to take | kebier to choose |
| job time | bier to take | jobier to borrow |
| dop military | bier to take | dopbier to conquer |
| nuc payment | bier to take | nucbier to purchase |
| ko- to hide | bier to take | kobier to steal |
| tel food | tam house | telam restaurant |
| mag fire | il liquid | magil oil |
| mam sky | mil water | mamil rain |
| mir planet | nod point | mirnod pole |
| mam sky | nid line | mamnid horizon |
| mar light | nid line | marnid ray |
| nof cloth | yazser to flatten | nofyazser to iron |
| taob flesh | tel food | taol meat |
| taob flesh | fab tree | faob wood |
| faob wood | cyeb container | faocyeb barrel |
| ápet pig | tel meat | ápel pork |

The following example of compounding with the root word mep (way, route, road) shows the efficiency of Unilingua compounding:

| first concept | combined concept |
| :--- | :--- |
| kum side | kumep sidewalk |
| tóáb walk | tómep walkway |
| dom city | domep boulevard |
| dom city | domèp avenue |
| dom city | domeap street |
| éb between | ébdomeap alley |
| zè across | zèmep bridge |
| zé through | zémep thoroughfare |
| óg- short | ógmep shortcut |
| oiz indirect | oizmep byway |
| yoz out | yozmep exit |
| éz in | ézmep entrance |
| íz beyond | ízmep detour |
| úz around | úzmep beltway |
| ig- fast | igmep expressway |
| ouj- no-end | oujmep cul-de-sac |


| nùc fee | nùcmep toll road, <br> turnpike |
| :--- | :--- |
| agal- main | agalmep main road |
| anog- primary | anogmep highway |
| ogal- minor | ogalmep back road |
| vó- wrong | vómep blind alley |
| áb high | ábmep raised highway |
| mom <br> underground | momep subway |
| elám iron | elámep railroad |
| tóáp- to walk | tómep walkway |
| par vehicle | parmep driveway |
| -et little | mepet path, lane |
| iz- direct | izmep straightaway |
| -án collective | mepán network |

## Root words

Root words are divided into two groups:

- 1st group: nouns.
- 2nd group: prepositions, adjectives, adverbs, conjunctions, and verbs, that is, all other words.


## Root words of the 1st group (nouns)

All noun root words are composed of three letters:

- The first, a consonant, called the classifier
- The second, a vowel, called the ordinal
- The third, a consonant, called the generic

Examples:

| classifier | ordinal | generic | meaning |
| :--- | :--- | :--- | :--- |
| $\mathbf{t}$ | $\mathbf{o}$ | b | man |
| $\mathbf{t}$ | $\mathbf{a}$ | b | body |
| $\mathbf{d}$ | $\mathbf{o}$ | $\mathbf{t}$ | society |
| $\mathbf{d}$ | $\mathbf{o}$ | $\mathbf{m}$ | city |
| $\mathbf{t}$ | $\mathbf{a}$ | $\mathbf{m}$ | house |

## Table of consonant semantic values

| consonant | classifier (1st <br> group) | generic (1st group) | classifier (2nd <br> group) |
| :--- | :--- | :--- | :--- |
| $\mathbf{b}$ | organ, illness, body | organism | gesture, manner |
| $\mathbf{p}$ | animal, vehicle | travel | movement |
| $\mathbf{c}$ | thing, furniture | form | making, c hundred |
| $\mathbf{s}$ | action | action | doing, action, thing |
| d | society | person | saying, writing |
| $\mathbf{t}$ | human being | person | knowing |
| $\mathbf{f}$ | vegetation | textiles, materials | quality |
| $\mathbf{v}$ | plant, color | cloth, linen | quality, truth |
| $\mathbf{g}$ |  |  | quantity, size, speed |
| $\mathbf{k}$ |  |  | weight, volume |
| $\mathbf{j}$ | time | time | time |
| $\mathbf{z}$ |  | cewels, precious, art, | direction |
| $\mathbf{l}$ |  | element, liquid, food | l ten |
| $\mathbf{m}$ | cosmos, nature | place, building, metal | ml million |
| $\mathbf{n}$ | merchandise, <br> containers | abstraction | counting |
| $\mathbf{r}$ |  | machine, instrument | mr billion |

## Table of vowel numeric values

| vowel | numeric value |
| :--- | :--- |
| $\mathbf{o}$ | 0 |
| $\mathbf{a}$ | 1 |
| $\mathbf{e}$ | 2 |
| $\mathbf{i}$ | 3 |
| $\mathbf{u}$ | 4 |
| $\mathbf{o}$ | 5 |
| $\mathbf{a}$ | 6 |
| $\mathbf{e}$ | 7 |
| $\mathbf{i}$ | 8 |
| $\mathbf{u}$ | 9 |

## Table of vowel geo-positional values

| vowel | value |
| :--- | :--- |
| a | above, superior, north |
| e | center, middle, equator |
| $\mathbf{o}$ | below, inferior, south |
| $\mathbf{u}$ | left, west |
| $\mathbf{i}$ | right, east |

## Table of vowel vectorial values

| vowel | free <br> movement | contact <br> movement | position | examples |
| :--- | :--- | :--- | :--- | :--- |
| a | on | onto | up/north | ab (on), aper (mount), aber <br> (apply) |
| á | up | onto | áb (up), áper (climb), páer <br> (rise) |  |
| o | under, off | underneath | down/south | ob (under), ober (remove), <br> boer (support) |
| ó | down | down to |  | óper (descend), póer (fall) |
| u | near | to | left/west | uper (come), puer (arrive) |
| ú | toward | until |  | úb (near), úper (approach), <br> púer (reach) |
| i | away | from | right/east | iper (go away), pier (leave) |
| $\mathbf{i ́}$ | far off | off |  | íb (away), íber (take away), <br> píer (originate) |
| e | between | at | center/mid <br> dle | eb (at), eper (stop), peer <br> (emain) |
| é | in | into |  | éz (in), yeber (contain), <br> béer (detain) |

## Table of vowel geo-specific values

| vowel | value | examples |
| :--- | :--- | :--- |
| a | air, gas, sky | map wind, mam sky, mal air |
| e | earth, solid, land | mep road, mem earth, mel <br> soil |
| i | water, liquid, juice | mip, river, mim sea, mil water |

## Table of vowel temporal values (for verbs)

| vowel | value | example |
| :--- | :--- | :--- |
| a | past | pa went, paa had gone, pao will have gone, pae has gone |


| $\mathbf{e}$ | present | pe goes, pee is going, pea has been going, peo will be <br> going |
| :--- | :--- | :--- |
| $\mathbf{o}$ | future | po will go, poa would go, poe is about to go |
| $\mathbf{u}$ | neutral tense | pu to go, go! |

## Root words of the $\mathbf{2 n d}$ group (non-nouns)

All words of the 2nd group, which are word roots other than noun roots, are composed of two letters, either a consonant-vowel combination like za or a vowel-consonant combination like az, not counting grammatical endings like the adjectival suffix -a or the verbal infinitive suffix -er.

## Vowel oppositions in 2nd group root words

Root words with $\mathbf{i} \Rightarrow \mathbf{u}$ opposition :

| positive | negative |
| :---: | :---: |
| fia good | fua bad |
| via beautiful | vua ugly |
| fía brave | fúa afraid |
| vía clean | vúa dirty |
| ifa lovable | ufa hateful |
| iva happy | uva sad |
| ífa modest | úfa proud |
| íva free | úva dependent |
| iga fast | uga slow |
| íga hard | úga soft |
| gia sharp | gua dull |
| gía difficult | gúa easy |
| ika full | uka empty |
| kia oblique | kua lateral |
| kíaheavy | kúa light |
| íka solid | úka fragile |
| íba far | úba near |
| bí since | bú up to |
| iza straight | uza crooked |
| ía right | zua left |
| íz beyond | úz around |

zí all over $\quad$ zúa round
Root words with ternary vowel opposition $\mathbf{a} \Rightarrow \mathbf{e} \Rightarrow \mathbf{o}$ and $\mathbf{i} \Rightarrow \mathbf{e} \Rightarrow \mathbf{u}$ :

| positive | neutral | negative |
| :---: | :---: | :---: |
| aza strong | eza medium | oza weak |
| áza flat | éza concave | óza convex |
| áz along | éz in | óz out |
| za front | ze middle | za behind |
| zà ahead | zè across | zò back |
| záa wide | zé through | zóa narrow |
| aga big | eg-repeat | oga small |
| ága long | ég- must | óga short |
| va yes | ve maybe | vo no |
| và and, both | vè or, either | vò nor, neither |
| vager to want | veger may, can | voger to renounce |
| av for | ev if | Ov against |
| váa true | véa relative | vóa false |
| áva innocent | év- to judge | óva guilty |
| ga more | ge equal | go less |
| gà also | gè $a s$ | gò but, except |
| gáa fat | géa moderate | góa thin |
| gla very | gle rather | glo slightly |
| gra too | gre just | gro insufficiently |
| gá most | gé average | gó least |
| kaer find | keer seek | koer hide |
| kyaer change | kéer fluctuate | kóer stay fixed |
| aker win | eker play | oker lose |
| áker to expect | éker to try | óker to be surprised |
| ja before | je during | jo after |
| aj past | ej present | oj future |
| já early | jé on time | jó late |
| -a past tense | -e present tense | -o future tense |
| ab on | eb $a t$ | ob off |
| áb above | éb between | ób below |
| ijer to begin | ejer to last | ujer to end |
| tijer to be born | tejer to live | tujer to die |

## 2nd Group Root Word Matrix

## Two-way i/u opposition

In 2nd group root words, the vowel $\mathbf{i}$ signals a positive value, while the contrasting vowel $\mathbf{u}$ indicates the negative or opposite value:

| positive | negative | positive | negative |
| :---: | :---: | :---: | :---: |
| fia good | fua bad | via beautiful | vua ugly |
| ifa dear | ufa hateful | iva happy | uva sad |
| fía brave | fúa afraid | vía clean | vúa dirty |
| ífa modest | úfa proud | íva free | úva bound |
| gia sharp | gua dull | kia oblique | kua lateral |
| gía difficult | gúa easy | kía heavy | kúa light |
| iga fast | uga slow | ika full | uka empty |
| zia right | zua left | iza straight | uza curved |
| zí- all around | zú- round | íz- beyond | úz- around |
| ij- begin | $\mathbf{u j}$ - end | íj- open | új- close |
| ib from | ub to | íb far | úb near |
| ib- receive | ub- send | íb- take away | úb- bring |
| bi- take | bu- give | bí away | bú toward |
| bin- pull | bun- push | bín- | bún- touch |
| ip- go (away) | up- come | íp- escape | úp- approach |
| pi- depart | pu- arrive | pí- originate | pú- reach |
| pin- $g r a b$ | pun- throw | pín- ... | pún- assault |

## Three-way a/e/o opposition

Some 2nd group root words exhibit a three-way contrast where a is the base or positive value, $\mathbf{e}$ the middle or in-between value, and $\mathbf{o}$ the negative or opposite value:

| positive | intermediate | negative |
| :--- | :--- | :--- |
| va yes | ve maybe | vo no |
| váa true | véa relative | vóa false |
| av for | ev if | ov against |
| áva innocent | év- judge | óva guilty |
| ga more | ge equal | go less |
| gla many | gle several | glo few |


| gra too many | gre just enough | gro too few |
| :---: | :---: | :---: |
| gá most | gé enough | gó least |
| gáa fat | géa moderate | góa thin |
| aga big | eg again | oga small |
| ága long | ég- must | óga short |
| ka- find | ke-search | ko- hide |
| ká- change | ké- waver | kó- stay |
| ak- win | ek- play | ok- lose |
| ák- expect | ék- try | ók- be surprised |
| za front | ze middle | zo back |
| záa wide | yzé through | zóa narrow |
| aza strong | eza average | oza weak |
| áza flat | éza concave | óza convex |
| áz along | éz in | óz out |
| ja before | je during | jo after |
| já early | jé on time | jó late |
| aj past | ej present | oj future |
| ab on | eb $a t$ | ob off |
| ab- apply | eb- keep | ob remove |
| áb above | éb between | ób lower |
| áb-lift | éb- contain | ób-lower |
| ba-lean on | be- carry | bo- hold up |
| bar- press | bel- keep | bol- support |
| bá- erect | bé- lay | bó- hang |
| ban- shake | ben- hold | bon- calm |
| ap- get on | ep- stay | op- get off |
| áp- ascend | ép- intervene | óp-descend |
| pan- move | pen- seize | pon- rest |
| pá- jump | pé- stand | pó- fall |
| pán- surge | pén- attack | pón- dive |

The following table shows how some of the 2 nd group root words can be expanded on through various word-building techniques:

| positive | negative | positive | negative |
| :--- | :--- | :--- | :--- |
| fia good | fua bad | via beautiful | vua ugly |
| fi well | fura cruel | viá pretty <br> fila | vuá vile |
| fula malignant goodness | vila <br> fila delicious | füra ferocious | magnificent |


$\mid$ ifcrer to be delighted
ifser to please
ifsler to charm
ifsrer to delight
iifper to stroll
ifi thanks
ifider to thank
ifcaler to enjoy

## Ordinal vowel codification of hierarchical nouns

Nouns that are related to one another in a hierarchy or organization can be codified using the ordinal feature of vowels. The $\boldsymbol{o}$ vowel (zero value) is used for the topmost element.

| job | time | tob | human | mor | universe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| jab | year | tab | body | mar | sun |
| jeb | season | teb | head | mer | planet |
| jib | month | tib | trunk | mir | earth |
| jub | day | tub | arm | mur | moon |
| jób | hour | tób | leg |  |  |
| jáb | minute |  |  |  |  |
| jéb | second |  |  |  |  |

Individual elements can be further subdivided into a secondary classification by the addition of an ordinal vowel to the right of the first vowel:

| tub | arm | tób | leg |
| :--- | :--- | :--- | :--- |
| tuab | shoulder | tóab | hip |
| tueb | upper arm | tóeb | thigh |
| tuib | elbow | tóib | knee |
| tuub | forearm | tóub | tibia |
| tuób | wrist | tóób | ankle |
| tuáb | hand | tóáb | foot |
| tuéb | fist | tóéb | talon |
| tuíb | palm | tóíb | heel |
| tuúb | finger | tóúb | toe |
| tuób | finger nail | tóób | toe nail |

A further, tertiary subdivision can be achieved by prefixing an ordinal vowel to the base:
tuúb finger

| atuúb | thumb |
| :--- | :--- |
| etuúb | index |
| ituúb | middle finger |
| utuúb | ring finger |
| ótuúb | little finger |

A convenient classification is possible by prefixing an ordinal vowel to the base without any primary or secondary enumeration:

| dob | state |
| :--- | :--- |
| adob | empire |
| edob | kingdom |
| idob | principality |
| udob | marquisate |
| ódob | earldom |
| ádob | barony |
| édob | duchy |
| ídob | dominion |
| údob | tribe |

## Forming concepts by compounding ("portmanteau")

New concepts can be formed by compounding simple words. If the generic (final) consonant of the first word matches the classifier (initial) consonant of the following word, the latter is suppressed for convenience and ease of pronunciation:

```
dom (city) + mep (road) }=>\mathrm{ domep (boulevard)
pat (bird) + tub (arm) }=>\mathrm{ patub (wing)
teb (head) + bók (pain) }=>\mathrm{ tebók (headache)
```

In cases where two ordinated nouns with the same classifier and generic consonants are combined, the vowels are combined:
$\mathbf{m i l}$ (water) $+\mathbf{m a l}$ (gas) $\Rightarrow$ mial (vapor)
When you wish to form a word composed of words of the same consonantal classification, and the ordinal vowel is $\mathbf{0}$, the $\mathbf{o}$ is replaced with the ordinal vowel of the determinant:
edob (kingdom) + deb (leader) $\Rightarrow$ edeb (king)
udob (principality) + deb (leader) $\Rightarrow$ udeb (prince)

Two singleton words often join by replacing the generic (final) consonant of the first word with the generic consonant of the second word, producing a melded concept somewhat like portmanteau words in English ("breakfast" + "lunch" "brunch").
tob (man) + nof (cloth) $\Rightarrow$ tof (clothes)
tóáb (foot) + nov (tissue) $\Rightarrow$ tóáv (sock)
teb (head) + nof (cloth) $\Rightarrow$ tef (hat)
tib (trunk) + nof cloth) $\Rightarrow$ tif (vest)
tób (leg) + nof (cloth) $\Rightarrow$ tóf (pants)
tuób (hand) + nof (cloth) $\Rightarrow$ tuóf (glove)
teib (nose) + nov (tissue) $\Rightarrow$ teiv (handkerchief)

## Making nouns and pronouns "feminine"

The "feminine" counterpart of a noun or pronoun is obtained by post-yodifying the ordinal vowel (i.e. adding a $\mathbf{y}$ glide):

| masculine | feminine |
| :--- | :--- |
| taf suit | tàf <br> dress/outfit |
| tóáv sock | tóâv stocking |
| tef pants | tèf skirt |
| néf carrying |  |
| case | nêf purse |
| it he | ìt she |
| tob man | tòb woman |
| apet horse | apèt mare |
| tad husband | tèd wife |

## Codifying nuances of words

There are several ways of deriving related words with slightly different nuances from the original word:

The $\mathbf{l}$ extender is used for a comparatively stronger sense, while the $\mathbf{r}$ extender is used for an even stronger (strongest) sense:

| absolute | comparative | excessive |
| :--- | :--- | :--- |
| ga more | gla very much | gra too much |
| úzbaer <br> squeeze | úzbaler pinch | úzbarer crush |
| buer give | buler grant | burer bestow |


| ika full | ikla packed | ikra <br> superabundant |
| :--- | :--- | :--- |
| aker win | akler <br> vanquish | akrer triumph |
| dier ask | diler beseech | direr demand |

The post-yodifying $\mathbf{y}$ extender is used for what usually amounts to a diminutive connotation:

| normal | mitigated |
| :--- | :--- |
| vager <br> want | vàger wish |
| fuf pipe | fùf tube |
| nas price | nàs cost |
| tep mind | tèp spirit |
| din story | dìn tale |
| cin image | cìn mark |
| ciun sign | ciùn <br> signal |
| sen action | sèn act |

Pre-yodification of a root vowel often imparts an intensified sense to the word. In any even, the normal and pre-yodified forms are usually related semantically. Compare:

| normal | intensified |
| :--- | :--- |
| bok malady | bók pain |
| pan motion | pán jump |
| beer to remain | béer to detain |
| aper to get on | áper to get up |
| pet animal | pét reptile |
| otata unholy | ótata diabolical |
| vua ugly | vúa dirty |
| go less | gó least |
| ga more | gá most |
| ze in the <br> middle | zé though |
| ijer to begin | íjer to open |

## Noun-forming derivational suffixes

## Summary

Here is a list of suffixes that are added to word bases to form derived nouns:

| suffix | meaning | base | derived noun |
| :---: | :---: | :---: | :---: |
| et | subdordinative | ted father | tedet son |
| an | deadjectival nominalizer (-itude, -ity, -hood, -ness) | iva happy | ivan happiness |
| en | deverbal nominalizer (-ing, -tion, -ance) | azvader to confirm | azvaden confirmation |
| on | general abstract nominalizer | c- to be | con thing |
| un | nominalizer of result | nú- to produce | núen product |
| at | person (-er) | óga young | ógat youngster |
| ut | agent (-ist) | ces- to build | cesut builder |
| tut | expert (-ologist) | mem earth | memtut geologist |
| tun | science (-ology) | mil water | miltun hydrology |
| in | doctrine (-ism) | tot god | totin theism |
| ar | instrument | p- to go | par vehicle |
| ir | machine | vís- to clean | vísir vacuum cleaner |
| ur | aparatus | magc- to burn | magcur stove |
| am | building | tel- to eat | telam restaurant |
| em | space | vab grass | vabem prairie |
| im | room | magél- to cook | magélim kitchen |
| án | collection | nac money | nacán fund |
| a | genetive/ablative case (of/from) | at $I$ | ata my |
| u | dative/locative case (in/at/on/to) | tam house | tamu at home |
| i | pluralizer | dén book | déni books |
| ag | augmentative | tam house | tamag palace |
| àg | augmentative affective | tam house | tamàg nice big house |
| ág | augmentative pejorative | tam house | tamág big ugly house |
| og | diminutive | tam house | $\boldsymbol{t a m o g}$ hut |
| òg | diminutive affective | tam house | tamòg cottage |
| óg | diminutive pejorative | tam house | tamóg shack |
| ob | infantile | tob human being | tobob child |

## Details

Following is a detailed description of the nominalizing derivations suffixes:

## The -et suffix

The -et suffix is used to form nouns of the same nature, lineage, or composition of a lesser importance:

| ted father | tedet son |
| :--- | :--- |
| fab tree | fabet bush |
| nac money | nacet change |
| fub branch | fubet shoot |
| táb <br> grandfather | tábet grandson |

## The -an suffix

The -an suffix is used to form a noun of quality or state from an adjective or noun:

| ama hot | aman heat |
| :--- | :--- |
| iva | ivan beauty |
| beautiful | fian goodness |
| fia good | tedan fatherhood |
| ted father | ted |
| dat friend | datan friendship |
| odat enemy | odatan enmity |

## The -at suffix

The -at suffix is used to form the word for a person described by the adjective base.

| iktila drunk | iktilat a drunkard |
| :--- | :--- |
| iva happy | ivat a happy person |
| ofísa hypocritical | ofísat hypocrite |
| tuja dead | tujat dead person |

## The -ut suffix

The -ut suffix is used to form the agent for the action described by the verb base "one who does $x$ " or the fabricator of something described by the noun base "one who makes $x$ ":

| kobier to steal | kobiut thief |
| :--- | :--- |
| tóáfser to make <br> shoes | tóáfsut shoemaker |
| teaper to visit | teaput visitor |
| deuzer sing | deuzut singer |

## The -tut suffix

The -tut suffix is used to form the specialist -ologist or student of something:

| tun science | tut scientist |
| :--- | :--- |
| memtun <br> geology | memtut geography |
| dad language | dadtut linguist |

## The -ob suffix

The -ob suffix is used to form the child or younger version of something:

| tob man | tobob child |
| :--- | :--- |
| apet horse | apetob pony |
| rapat lion | rapatob lion <br> cub |
| tot god | totob son of god |

## The -ar suffix

The -ar, ir, or -ur suffix on a verb base is used for an instrument/tool, machine, or apparatus, respectively.

| álber to lift | álbur elevator |
| :--- | :--- |
| álber to lift | álbar lever |
| álbir to lift | álbir fork lift |
| víarer to sweep | víarar sweeper |
| ilújer to plug | ilújar faucet |
| kácanerto transform | kácanur transformer |
| drecer to write | drecar pencil |

The -en suffix
The -en suffix is used on a verb base for the verbal noun -ing, -ence, -ment, -tion:

| ecer to exist | ecen existence |
| :--- | :--- |


| iber to receive | iben reception |
| :--- | :--- |
| béer to detain | béen detention |
| otamser to <br> demolish | otamsen demolition |

## The -un suffix

The suffix -un is used on a verb base for the concrete result of an action:

| vyarer to sweep | vyarun sweepings |
| :--- | :--- |
| gorfer to tear | gorfun $a$ tear, a rip |
| teacer to see | teacun view |
| zéfser to make glass <br> jewelry | zéfsun glass jewelry |

The -án suffix
The suffix -án is used on a noun base for collections or groupings:

| fab tree | fabán forest |
| :--- | :--- |
| cir machine | cirán machinery |
| meb mountain | mebán mountain range |
| tolar food <br> dish | tolarán dishes |
| mep road | mepán network |
| aco hundred | acoán century |
| dún word | dúnán glossary |
| tam house | tamán block (of <br> houses) |
| màr star | màrán constellation |

## The -ag suffix

The -ag suffix is used on a noun base for augmentatives "big ...":

| tom <br> residence | tomag palace |
| :--- | :--- |
| mapil storm | mapilag <br> tempest |
| mep road | mepag highway |

## The -àg suffix

The suffix -àg is used on a noun base for affectionate augmentatives "big old...":

$\left.$| tam |
| :--- | :--- |
| house |$\quad$| tamàg big old |
| :--- |
| house | \right\rvert\, | cim chair | cimàg big old chair |
| :--- | :--- |

The -ág suffix
The suffix -ág is used on a noun base for pejorative augmentatives "big ugly...":

| apet horse | apetág nag |
| :--- | :--- |
| pem car | pemág jalopy |
| teb head | tebág <br> blockhead |
| tob man | tobág brute |
| pot animal | potág beast |
| tòb <br> woman | tòbág hag |

The -og suffix
The suffix -og is used on a noun base for diminutives "little...":

| tam <br> house | tamog <br> cottage |
| :--- | :--- |
| dén book | dénog booklet |

The -òg suffix
The suffix -òg is used on a noun base for affectionate diminutives "sweet little...":

| épet $d o g$ | épetòg doggie, <br> pooch |
| :--- | :--- |
| tòb lady | tòbòg little old lady |
| tèbos kiss | tèbosòg peck |

The -óg suffix
The suffix -óg on a noun base for pejorative diminutives "dirty little..."

| tebzan <br> face | tebzanóg mug |
| :--- | :--- |
| tob man | tobóg wretched <br> fellow |

## The -in suffix

The suffix -in is used on a word base for a philosophy or doctrine -ism:

| òtota godless | òtotin atheism |
| :--- | :--- |
| adoba republican | adobin republicanism |
| fob vegetable | fobin vegetarianism |
| ísfrana utilitarian | ísfranin <br> utilitarianism |

## Adjective-forming derivational suffixes

## Summary

| suffix | meaning | base | derivative |
| :--- | :--- | :--- | :--- |
| -a | relating to | moj night | moja nocturnal |
| -aa | past participle | tuj- to die | tujaa dead (also: tuja $)$ |
| -ea | present participle | abdab- to <br> dominate | abdabea dominant |
| -èna | like | tobob child | tobobèna childish |
| -èa | tending to | da- to talk | daèa talkative |
| -oa | future participle | tuj- to die | tujoa moribund |
| -wua | -able, -ible | tel- to eat | telwua edible |
| -àa | -ous, -y, -ful, having | maf cloud | mafàa cloudy |
| -òa | -less | maf cloud | mafòa cloudless |
| -ika | -ful, full of | nac money | nacika rich |
| -uka | -less, devoid of | nac money | nacuka poor |

Note: -àa/-òa is synonymous with -ika/-uka. The latter is a new addition to Unilingua author Agapoff's original grammar.

## Details

The -a suffix
The ending -a is used to mean having to do with, in the state of. This is the most common way to form an adjective from a noun:

| tej life | teja vital |
| :--- | :--- |


| tuj death | tuja mortal, <br> dead |
| :--- | :--- |
| moj <br> night | moja nocturnal |
| tob man | toba human |
| yab up | yaba upper |

In Agapoff's original work on Unlingua, the termination a was also used to form the past passive participle of verbs (ex: tuja = dead, ota = unknown). In this work, the proposed termination for past passive participle is waa or more simply, wa (ex: tujwa = dead, otwa = unknown). See \#Verbs for more on this.

| ter to know | twa known (Ca twa ad meir ce yaza. It was known that the <br> earth is flat.) |
| :--- | :--- |
| fiser to | fiswa improved (Fiswa nyun improved product) |
| improve | ifer to love |
| ifwa loved, beloved, dear (Ifwa ted... Dear Father...) |  |

## The -éna suffix

The ending -éna on nouns is used to give the idea of like, having the nature of:

| tobob child | tobobéna childish, <br> infantile |
| :--- | :--- |
| ted father | tedéna paternal, fatherly |
| bilíg <br> cheese | bilígéna cheesy |

## The -éa suffix

The ending -éa is used on verb bases to mean tending to:

| tuser persuade | tuséa persuasive |
| :--- | :--- |
| oceser destroy | oceséa destructive |
| abdaber <br> dominate | abdabéa dominating |
| daer talk | daéa talkative |

## The -ea suffix

The ending -ea is used on verb bases to form the present participle '-ing, -ant':

| tejer live | tejea living, alive |
| :--- | :--- |
| tujer die | tujea dying |
| abdaber | abdabea dominant |

$\square$
The -wua suffix
The ending -wua is used on verb bases to mean able to be ...ed '-able':

| teler eat | telwua edible |
| :--- | :--- |
| teacer | teacwua |
| see | visible |
| tiler drink | tilwua potable |

The -àa suffix
The ending -àa is used on noun bases to mean full of, having, carrying... '-ous, -y'. This comes from -à, meaning with. It is synonymous with -ika 'full', presented further on.

| meg rock | megàa rocky |
| :--- | :--- |
| miek sand | miekàa sandy |
| meb <br> mountain | mebàa mountainous |

## The -òa suffix

The ending -òa is used on noun bases to mean devoid of, without, un-...ed. This comes from -ò, meaning without. It is synonymous with -uka 'empty', presented further on.

| taéb hair | taébòa hairless, <br> bald |
| :--- | :--- |
| tec <br> meaning | tecòa meaningless |
| toc feeling | tocòa numb |

## The -ika suffix

The ending -ika full is used on noun bases to mean full of '-ful, -ous, - $\mathbf{y}$ '. This suffix is synonymous with -àa.

| ilpaan <br> wave | ilpaanika wavy |
| :--- | :--- |
| nas money | nasika rich |
| mil water | milika watery, aqueous |
| voz color | vozika colorful |

## The -uka suffix

The ending -uka empty is used on noun bases to mean the devoid of '-less'. This suffix is synonymous with -òa and the opposite of -ika and -àa.

| nas money | nasuka poor |
| :--- | :--- |
| voz color | vozuka colorless, bland |
| teuc taste | teucuka tasteless, insipid |
| nánut population | nánutuka unpopulated, <br> deserted |

## Adverb-forming derivational suffixes

## The -à suffix

Change the adjectival ending -a to -à to form an adverb:

| yufa proud | yufà proudly |
| :--- | :--- |
| teacèa <br> visible | teacèà visibly |
| uva sad | uvà sadly |

Use -à on noun bases to form an adverbial postpositional phrase mean with...:

| ifcion <br> grace | ìfcionà with <br> grace |
| :--- | :--- |
| at me | atà with me |
| úf pride | úfà with pride |

The -ò suffix
Use -ò on a noun to mean without...:

| nas cost | nasò cost-free |
| :--- | :--- |
| seuc <br> noise | seucò <br> noiselessly |
| et you | etò without you |

The -è suffix
Use -è on a noun to mean by, by way of, through, via...:

| pam plane | pamè by plane |
| :--- | :--- |
| ìt her | ìtè by her |


| ésag hard work | ésagè through hard work |
| :--- | :--- |
| Paris Paris | Parisè via Paris |

## Verb-forming derivational suffixes

## Summary

| ending | meaning |
| :--- | :--- |
| er | infinitive |
| cer | intransitive stative verb infinitive ("to be/become") |
| ser | transitive dynamic verb infinitive ("to do/make") |
| per | intransitive verb of motion infinitive ("to go") |
| ber | transitive verb of gesture infinitive ("to put") |

## Details

The -er suffix
The suffix er is used on noun bases to form a verb infinitive.

| noun | verb |
| :---: | :---: |
| tej life | tejer to live |
| tuj death | tujer to die |
| túj sleep | tújer to sleep |
| ij beginning | ijer to begin |
| ij opening | íjer to open |
| tíj wakening | tíjer to waken |
| új closing | újer to close |
| tém residence | témer to reside |
| drén print | dréner to print |

## The -cer and -ser suffixes

The ending -cer be/become is used to create intransitive verbs from nouns and adjectives where the intransitive form contrasts significantly with the transitive form. If the adjective is a base, the -a ending is dropped unless 1) the resulting consonant combination would be difficult; or 2) the meaning is literal as opposed to metaphorical, in which case the dropped -a version is taken as metaphorical. For example, aga big becomes either agacer, meaning literally to become big, or agcer, meaning metaphorically to grow, as in Vab agce ga igà adjobu mamile. The grass grows faster when it rains.

The ending -ser do/make/act/cause is employed to form transitive verbs. In a few cases like teacer/teaser, the opposition of -cer vs. -ser is semantic in nature. In these cases, -ser imparts a more dynamic meaning. In a few other cases, -ser is used to form the causative form of a verb, meaning to make/have/cause/let someone do something.

| adjective | intransitive verb | transitive verb |
| :---: | :---: | :---: |
| aga big | agacer to get big | agaser to magnify |
| aga big | agcer to grow | agser to grow |
| ígza sour | ígzacer to grow sour | ígzaser to make sour |
| íva free | ívcer to go free | ívser to liberate |
| teab eye | teacer to see | teaser to look |
| man light | mancer to shine | manser to illuminate |
| ábta vertical, upright | ábtacer to stand up | ábtaser to erect |
| ázta incumbant, reclined | áztacer to lie down | áztaser to lay down |
| óbta sitting, settled | óbtacer to sit down, settle | óbtaser to set down |

## The -per and -per suffixes

- The ending -per is used for intransitive verbs of motion (going).
- The ending -ber is used for transitive verbs of gesture (putting):

| base | intransitive verb | transitive verb |
| :--- | :--- | :--- |
| áb $u p$ | áper to rise | áber to raise |
| ón <br> apart | ónper to go apart | ónber to <br> separate |
| ob off | oper to get off | ober to take off |
| eb at | eper to stop | eber to stop |
| ika full | ikper to fill up | ikber to fill up |

## Forming numbers

## Cardinal numeric adjectives

The cardinal numeric adjectives $0-9$ are formed from the ordinal vowels. The tens are formed with the extension consonant $\mathbf{l}$, the hundreds with the consonant $\mathbf{c}$, the thousands with $\mathbf{r}$, the millions with $\mathbf{m l}$, and the billions with $\mathbf{m r}$.

Numbers composed with aro ( 1,000 ), amlo ( $1,000,0000$ ), and amro $(1,000,000,000)$ retain the $\mathbf{o}$ and are spelled separately from the rest of the number with a space.

| number | numeral adjective |
| :--- | :--- |
| 0 | o zero |
| 1 | a one |
| 2 | e two |
| 3 | i three |
| 4 | u four |
| 5 | ó five |
| 6 | á six |
| 7 | é seven |
| 8 | í eight |
| 9 | ú nine |
| 10 | alo ten |
| 11 | ala eleven |
| 12 | ale twelve |
| 13 | ali thirteen |
| 14 | alu fourteen |
| 15 | aló fifteen |
| 20 | elo twenty |
| 21 | ela twenty-one |
| 22 | ele twenty-two |
| 30 | ilo thirty |
| 31 | ila thirty-one |
| 100 | aco one hundred |
| 101 | aca one hundred one |
| 123 | aceli one hundred twenty- <br> three |
| 200 | eco two hundred |
| 1000 | aro one thousand |
| 1089 | aro ílú |
| 2348 | ero iculí |
|  |  |


| 10000 | aloro ten thousand |
| :--- | :--- |
| 12487 | aleru ílé |
| 1000000 | amlo one million |
| 6000000 | ámlo |
| 6058720 | ámlo ólíro écelo |

## Ordinal numeric adjectives

The ordinal numeric adjectives are formed by adding -a to the cardinal number:

| cardinal | ordinal |
| :--- | :--- |
| a 1 | aa first |
| e 2 | ea second |
| i 3 | ia third |
| alo 10 | aloa tenth |
| aci 103 | acia one hundred third (pron: $a-C I-$ <br> a) |

## Ordinal numeric substantives

When ordinal numbers are used substantively, the letter $\mathbf{t}$ is appended for persons and the letter $\mathbf{c}$ for things:

| English | Mirad |
| :--- | :--- |
| The first shall be last. | Aati co ujnati. |
| The second in the series. | Eec anána. |

## Collective numeric substantives

Collective (or: multiplicative) substantives of the cardinal numbers are formed by adding on.

| cardinal | collective |
| :--- | :--- |
| a one | aon single/whole/unit/solo |
| e two | eon <br> double/couple/pair/duo/twosome |
| i three | ion triple/trio/threesome |
| u four | uon quadruple/foursome/quartet |
| ó five | óon quintuple |
| é seven | éon sevenfold |
| é seven | jubéon week |
| alo ten | alon tenfold |


| alo ten | jabalon decade |
| :--- | :--- |
| ale twelve | aleon dozen |
| aco hundred | acon hundredfold |
| aco hundred | aconè percent |
| aco hundred | jabacon century |
| aro thousand | aron thousandfold |
| aro thousand | aroni thousands |

## Collective numeric prefixes

Prefixes having a collective (or: multiplicative) numeric meaning are expressed as:

| cardinal | collective | example |
| :--- | :--- | :--- |
| a one | an- single, mono-, uni | anzúc unicycle |
| e two | en- double, bi-, di-, duo- | enzúc bicycle |
| i three | in- triple, tri- | inzúc tricycle |
| u four | un- quadruple, quad-, tetra- | unkum <br> tetrahedron |
| ó five | ón- quintuple, penta- | óngun pentagon |
| alo ten | alon- tenfold, deca- | alonjab decade |
| aco hundred | acon- <br> cent- | aconjab century |
| aro thousand | aron- thousandfold, kilo- | aronkín kiloliter |

## Fractional numeric substantives

Fractional numeric substantives are formed by adding on to the corresponding fractional numeral. The on is dropped in prefixed forms of the fractions:

| cardinal | fraction | prefix | example |
| :--- | :--- | :--- | :--- |
| a one | àon unit, whole | à- holo- | àcin hologram |
| e two | èon half | è- semi-, <br> demi- | ètot demigod |
| i three | ìon third | ì- terci- | ìgana terciform |
| u four | ù̀n quarter | ù- quatri- | ùser to quarter |
| alo ten | alòon tenth | alò- deci- | alòser to decimate |
| aco hundred | acòon hundredth | acò- centi- | acònog <br> centrigrade |
| aro thousand | aròon <br> thousandth | arò- milli- | aròkík milligram |

## Frequentative numeric adverbs

Adverbs of frequency are formed with the root jig, meaning frequency, rate:

| cardinal | frequency |
| :--- | :--- |
| o zero | ojigu never |
| a one | ajigu once |
| e two | ejigu twice |
| i three | ijigu thrice, three times |
| co <br> hundred | acojigu a hundred times |
| od what | odjigu? <br> rate? |
| ge same often, at what | gejigu at the same rate, as <br> often |
| ga more | gajigu more often |
| go less | gojigu less often |
| ud this | udjigu this often |
| id that | idjigu that often |
| gla much | glajigu very often |
| glo little | glojigu infrequently |
| glà rather | glàjigu rather often |

## Numeric adjectives of order or rank

nap order, rank

| cardinal | order |
| :--- | :--- |
| o zero | onapa zeroth |
| a one | anapa primary, first, original |
| e two | enapa secondary, second-ranking |
| i three | inapa tertiary, third-ranking |
| u four | unapa quaternary, fourth-ranking' |
| za front | zanapa front-ranking, ahead |
| zo back | zonapa behind, trailing |
| ja before | janapa former, foregoing |
| jo after | jonapa next, following |
| $\mathbf{i j}$ |  |
| beginning | ijnapa first, original |
| uj end | ujnapa last, final |
| lo un- | lonapa random, unordered |

## Numeric adjectives of degree

nog degree, grade, stage

| cardinal | degree |
| :--- | :--- |
| a one | anoga primary |
| e two | enoga secondary |
| i three | inoga tertiary |
| u four | unoga quaternary |

## Numeric adjectives of base or bit

Add -na:

| cardinal | base | grouping |
| :--- | :--- | :--- |
| o zero | ona zero-based | onet zero, null |
| a one | ana unary, only | anet unit |
| e two | ena binary | enet bit |
| i three | ina ternary |  |
| u four | una quaternary |  |
| ú eight | úna octal | únet octet, byte |
| alo ten | alona decimal |  |
| alé <br> sixteen | aléna hexadecimal | alénet 16 -bit <br> byte |

## Numeric prefixes

If cardinal numeric morphemes are used as prefixes, $\mathbf{- n}$ is added, unless the base to which it is being attached already begins with that letter:

| root | numeric adjective |
| :--- | :--- |
| kunid edge | enkunida double-edged |
| nid line | anida single-lined |
| nag |  |
| dimension | enaga two- <br> dimenesional |
| nég space | enéga double-spaced |
| tep mind | antepa single-minded |
| neg level | enega split-level |
| mep way | anmepa one-way |
| voz color | anvoza monochrome |
| can form | ancana uniform |


| tooc sex | entoocifa bisexual |
| :--- | :--- |
| tot god | antotina monotheistic |
| izan direction | enizana bidirectional |

## Numeric Expressions

Distance/size measurements (zák meter)=
(zág is width, ág is length, ag is size, íban is distance, ábag is height, óbag is depth, gán is girth):

| measurement | example |
| :--- | :--- |
| zák meter | It ca á záki íb. He was 5 meters away. |
| arozák kilometer | Ce eli arozáki bú dom. It is 23 km . to (until) the <br> city. |
| aroyzák <br> millimeter | Cizo alo aroyzáka nid. Draw a ten mm. line. |
| acozák centimeter | Odgan acoyzáki ága ce? How many cm. long is it? |

Weight measurements (kík gram)
(kín is weight, kíncer is to weigh):

| measurement | example |
| :--- | :--- |
| kík gram | Odgan kíki id kínce? How many grams does that weigh? |
| arokík kilogram | At vage u arokíki vâba. I want five kg . of grain. |
| aròkík <br> milligram | Mez kínce e aròkíki. The crystal weighs two milligrams. |

Volume measurements (nék liter)
(néd is volume):

| measurement | example |
| :--- | :--- |
| nék liter | Odganu néki it ébe? How many liters does it hold? |
| aronék kiloliter | At vage u aronéki vâba. I want five kilos of grain. |
| arònék <br> milliliter | Ézbo e arònéki mila. Insert two ml. of water. |

## Math expressions

(gaber to add, gober to substract, garer to multiply, gorer to divide, gecer to equal):

| Mirad | English |
| :--- | :--- |
| A gab a gece e. | One plus one equals two. |
| U gob a gece i. | Four minus 1 equals three. |
| E gar u gece ó. | Two times four equals eight. |
| Alo gor e gece á. | Ten divided by two equals five. |
| E veg e gece u. | Two to the second power equals <br> four. |
| E nod u. | Two point five (2.5) |
| U gab a èon or u a èonà | $51 / 2$ |

## Clock time expressions ( jób = hour)

The international 24 -hour clock is used.

| Mirad | English |
| :--- | :--- |
| Odjób ce? | What time is it? (lit: Which hour is [it]?) |
| Ce a jób. | It's one o'clock. |
| Ce ali jób alá. | It's 1:15 PM. |
| Ce i jób ilo. | It's 3:30 AM. |
| Ce ya jób gob alo. | It's ten 'til five. (lit: five hours minus <br> ten) |

## Calendar expressions

| Unilingua | English |
| :--- | :--- |
| Od ce uda jud? | What's today's date?' |
| Udjub ce alá jiub aroúcúli. | Today is 16 April 1993. |
| Ted puo jo i jubi. | Father will arrive in two days. |
| Nunam íjwe yada juebu. | The store opens on Mondays. |
| Nunam íjwo zoa juebu. | The store opens on Monday (next). |
| Zajibu mamila gá ádjoba. | Last month it rained the most ever. |
| Ju zajub! | Until tomorrow! |
| Gla dropeki swa je jabi aroúco. | There were many wars during the 1900s. |
| Zoyejubánu juebu at so ivsej. | On monday of next week I will give a <br> party. |

Age expressions (jag = age)

| Mirad | English |
| :--- | :--- |
| Odjaga et ce? | How old are you? |
| At ce ele jaga. | I am 22 years old. |

At upta úlo jaga tob. $\left\lvert\, \begin{aligned} & \text { I met a } \\ & \text { man }\end{aligned} 90\right.$-year-old man.

## Forming chemical element names

To form words for chemical elements, use the following method: The first letter is the ordinal vowel for the number of electrons. The next letters are:

- m for metals
- mc for nonmetals
- al for gases
- il for liquids

| electron count | type | Mirad English |
| :--- | :--- | :--- |
| 47 | metal | ulém silver |
| 13 | metal | alim aluminum |
| 26 | metal | elám iron |
| 15 | nonmetal | elómc <br> phosphorus |
| 6 | nonmetal | ámc carbon |
| 1 | nonmetal gas | amc hydrogen |
| 7 | nonmetal gas | émcal azote |
| 8 | nonmetal gas ímcal oxygen |  |
| 80 | metal liquid | ílomil mercury |

## Codifyng new words based on mnemonics and analogy

Sometimes a word or group of words can have a connection with the meaning of a derived word. Such words are formed from this derived word by changing the generic final root consonant or sometimes other consonants of this word:

| teub mouth | $<$ teb head |
| :--- | :--- |
| teud utterance | d say |
| teuz voice | z precious/art,etc. |
| deuz song | d speak/write |


| taéb hair | tab human body |
| :--- | :--- |


| faéb leaf | fab tree |
| :--- | :--- |
| vocaéb petal | voc flower |
| potaéb mane | pot animal |
| pataéb feather | pat bird |
| petaéb fur | pet land animal |
| upetaéb | upet sheep |
| fleece | pit fish |
| pitaéb fin | pis |


| taób skin | tab human body |
| :--- | :--- |
| taóf leather | nof cloth |
| faób bark | fab tree |
| fáób rind | fáb fruit |
| pitaób scales | pit fish |
| petaób hide, <br> pelt | pet animal |


| cim chair | bimer to sit |
| :--- | :--- |
| cum bed | bumer to lie |
| cem <br> table | bemer to sit down at the <br> table |


|  | ceacer to appear <br> beacer to keep watch <br> neacer to target <br> teaper to visit <br> izeacer to show <br> váleacer to check <br> teacer to <br> see |
| :--- | :--- |
| óneater to discern <br> ágeacer to <br> contemplate <br> izeader to indicate <br> abeacer to survey <br> ijeacer to notice <br> teader to witness |  |

## Forming new words with prefixation

Prefixed elements (sometimes more than one) can be used to form new concepts
related to the root word.

Here are examples where morphemes are joined to der to say:

| prefixed morpheme | derived concept |
| :---: | :---: |
| ja before | jader to predict |
| já early | jáder to warn |
| ja ve before maybe | javeder to guess |
| jo after | joder to reply |
| eg again | egder to repeat |
| oz weak | ozder to whisper/hint |
| az strong | azder to insist |
| óz out | ózder to express |
| zí all around | zíder to broadcast |
| uj end | ujder to conclude |
| ka- find | kader to reveal |
| ko- hide | koder to keep secret |
| fi well | fider to eulogize |
| fu poorly | fuder to curse/damn |
| fia good | fiader to praise |
| fua $b a d$ | fuader to malign |
| fri wonderful | frider to flatter |
| fru terrible | fruder to insult |
| evfia if good | evfiader to critique |
| av for | avder to favor |
| ov against | ovder to object/oppose |
| ava favorable | avader to side with |
| ova opposed | vader to contradict |
| av od for what | avoder to question |
| va veg yes can | vavegder to permit |
| vo veg no can | vovegder to prohibit |
| vo va no yes | vovader to contest |
| az ov strong against | azovder to protest |
| va yes | vader to affirm/decide |
| ve maybe | veder to speculate |
| vo no | 'voder to deny' |
| fiva good yes | fivader to approve |
| o fi va not good yes | ofivader to disapprove |


| fu va bad yes | fuvader to condemn |
| :---: | :---: |
| az va strong yes | fivader to confirm |
| val certainty | valder to certify |
| vac assurance | vacder to assure |
| vag want | vagder to mean/express desire |
| ván truth | váder to swear |
| vón falsehood | vóder to lie |
| áva innocent | ávader to vindicate |
| óva guilty | óvader to indict |
| áva innocent | ávder to thank |
| óva guilty | óvder to blame |
| íva free | ívader to acquit |
| íva free | ívder to forgive |
| év judgement | évder to judge |
| éb between | ébder to discuss |
| ók surprise | ókder to improvisate |
| ág long | ágder to ramble |
| óg short | ógder to summarize |
| iva happy | ivader to thank |
| iva happy | ivder to congratulate |
| uva sad | uvder to complain |
| uva sad | uvader to apologize |
| jo uva after sad | jouvder to regret/mourn |
| ivcan merriment' | ivcder to joke |
| fu iva bad happy | fuivader to mock |
| ók surprise | ókder to improvisate |
| aj past | ajder to evoke |
| oj future | ojder to promise |
| naz value | nazder to evaluate |
| ók surprise | ókder to improvisate |
| dún name | dúnder to nominate |
| kua lateral | kuder to remark (aside) |
| kia sloped | kider to hint |
| dún name | dúnder to nominate |
| gra too much | grader to exaggerate |
| gro too little | groder to underplay |
| gan quantity | gander to quantify |


| Óva guilty | óvader to accuse |
| :---: | :---: |
| teab eye | teader to testify |
| cin picture | cinder to predict |
| kóa fixed | kóder to insist |
| o not | oder to keep silent |
| kebi choice | kebider to vote |
| tata holy | tatader to bless |
| fún fear | fúnder to express fear |
| vates belief | vatesder to express belief |
| vetes doubt | vetesder to express doubt |
| vika admiration | vikader to express admiration |
| fíl courage | fílder to encourage |
| ofíl not courage | ofílder to discourage |
| ga more | gader to say more/go on |
| ge equal | geder to agree |
| oge not same | ogeder to disagree |
| ék risk | ékder to dare say |
| ég obligation | égder to be obliged to say |
| ek play | ekder to pretend |
| iz straight | izder to say frankly |

## Forming new adjectival concepts with compounding

New adjectival concepts can be readily formed by compounding a noun or other rootword with an existing root adjective:

| tep intellect | aza strong | tepaza smart |
| :--- | :--- | :--- |
| tep intellect | oza weak | tepoza dumb |
| vag will | aza strong | vagaza strong-willed |
| vag will | oza weak | vagoza weak-willed |
| vag will | ána together | vagána consensual |
| vag will | óna apart | vagóna non-consensual |
| veg possibility | aza strong | vegaza likely |
| veg possibility | oza weak | vegoza unlikely |
| tep intellect | kía heavy | tepkía serious |
| tep intellect | kúa light | tepkúa light-hearted |
| tep intellect | káa variable | tepkáa scatter-brained |
| tep intellect | kóa fixed | tepkóa attentive |


| tep intellect | záa wide | tepzáa fair-minded |
| :---: | :---: | :---: |
| tep intellect | zóa narrow | tepzóa narrow-minded |
| tep intellect | íja open | tepíja open-minded |
| tep intellect | úja closed | tepúja close-minded |
| tep intellect | iga fast | tepiga quick-witted |
| tep intellect | uga slow | tepuga retarded |
| tep intellect | ána together | tepána like-minded |
| tep intellect | óna apart | tepóna dissenting |
| top spirit | íga hard | topíga cruel |
| top spirit | úga soft | topúga leninent |
| top spirit | vaa positive | topvaa optimistic |
| top spirit | voa negative | topvoa pessimistic |
| top spirit | ába high | topába up-beat |
| top spirit | óba low | topóba down-beat |
| top spirit | iva happy | topija jolly |
| top spirit | uva sad | topuja melancholy |
| nac money | ika full | nasika rich |
| nac money | uka empty | nasuka poor |
| áb up | ága long | ábága tall |
| ób down | ága long | óbága deep |
| áb up | óga short | ábóga short (vertically) |
| ób down | óga short | óbóga shallow |
| job time | ága long | jobága long (duration) |
| job time | óga short | jobóga short (duration) |
| mep way | iza straight | mepiza direct |
| mep way | uza crooked | mepuza convoluted |
| váb rule | aza strong | vábaza strict |
| váb rule | oza weak | váboza lax |
| dab government | ava for | dabava pro-government |
| dab government | ova against | dabova antigovernment |

## Word Classifiers

The following are common combinatory morphemes used to distinguish or classify entities. Many of them are abbreviated forms. If you were to produce a list of word rhyming with any of these morphemes, you would have a list of words that all fit within a similar taxonomic category. For example, all Unilingua words ending in pyot refer to wild animals. All those ending in il are liquids.

| classifier | meaning |
| :--- | :--- |
| am | building |
| em | place |
| im | room |
| ém | container |
| ut | agent |
| j | time |
| jig | rate |
| nog | degree |
| bén | manner |
| caun | kind |
| can | shape |
| gan | quantity |
| pat | bird |
| pet | land animal |
| pót | wild animal |
| pét | reptile |
| pelt | insect |
| peit | amphibian |
| piit | crustacean |
| pit | fish |
| fab | tree |
| fáb | fruit |
| vob | plant |
| vab | grass |
| vol | vegetable |
| voc | flower |
| voz | color |
| ar | instrument |
| par | vehicle |
| ir | machine |
| ur | motor |
| er | verb |
| ez | gem |
| tun | science |
|  | food |
| erientist |  |


| él | semi-solid |
| :--- | :--- |
| of | solid |
| uf | material |
| án | cylinder |
| ber | put |
| per | go |
| cer | be |
| ser | do |
| un | result |
| en | process |
| an | state |
| on | abstract thing |
| in | doctrine |
| ub | apendage |
| eb | head |
| euz | sound |
| dren | document |

## 4 Word Families

live version • discussion • edit chapter • comment • report an error

## Doing / making (ser)

| ser to do/act | seud agent seem agency sen action aasen initiative seyn act seun business seunud businessman seon fact seoj case sej event sejet incident seb boss sem studio casem factory jeser continue ánser to cooperate gèser to copy jaser to prepare zòser to undo igser to hurry up ojser to plan egser to redo aanser to unify seser to have (sth) done sener to activate senan activity senen activation |
| :---: | :---: |
| aser to act | as action <br> asud actor <br> alser to operate <br> als operation <br> alsud operator <br> alsea operational <br> arser to effectuate |
| saer to execute | saen execution |


|  | saud executor saena executive saler to accomplish sal accomplishment |
| :---: | :---: |
|  | is effect |
| iser to have an effect | ois zero effect ujis purpose |
|  | us cause |
| user to cause | usa causal ùser to motivate ùs motive ùsen motivation ùsea motivating ùsena motivational ulser to influence uls influence ulseá influential us và is cause and effect |
|  | es function |
| eser to function | esea functioning esena functional esud functionary esem office |
| éser to work | ésem worksite |
|  | éset job éser to work ésud worker |


|  | éstut engineer ésán handiwork éscén process ésnic salary ésnicud salaried emploée ésep strike ésepud striker oyés unemployment oyésud jobless person oésea lazy ésjub workday oésjub holiday ánés collaboration ánésa collaborative ánésud collaborator |
| :---: | :---: |
| sier to result | siun result osiun lack of result |
| suer to occasion | suler to provoke <br> sul provocation suleá provocative sulud provocateur |
| seer to behave | seen behavior <br> seena behavioral seler to conduct oneself séer to busy onself séler to practice séner to profess |
|  | ís use |
| íser to use | ísud user írser to exploit írs exploitation írseá exploitative fiíser to put to good use fuíser to misuse |
| úser to serve | ús service |

## Being/becoming (cer)

| cer to be | cat creature, cyd subject |
| :---: | :---: |
| acer to become |  |
| ocer to be nonexistent | ocun nothing, ocuner to annihilate |
| icer come about, happen | ic event, ijicer to originate, ujucer to end up, ujuc fate, destiny, fuic misfortune |
| ucer to make, create, cause | ucud creator, ucun a creation, ucunán (all of) creation, uceá creative |
| ecer to exist | ece there is/are, ecea available, ecen existence, oecea nonexistent |
| àcer to have, own, possess | àcun possession, àcud (owner), àca own, utàc property, àser to make available |
| òcer to lack, need | òc gap, òcea lacking, òser to deprive, òcler to need, òcleá necessary |
| can form, shape | caner to form, canòa shapeless, fucana malformed, canen formation, ózcan aspect, ficaner to reform, kácaner to transform, canáner to compose, áncaner to constitute, candrener to formulate |
| caun type,kind | aacaun prototype, vicaun model, vácaun original, utcaun example, ajcaun precedent |
| caser to fabricate | casem factory |
| ceser to build | cesen construction, cesud builder, cesem building site, oceser to destrò, ocesen destruction, oceseá destructive |
| cun thing (concrete) | cunán reality, ocuner to anihilate |
| acun element | acana elemental, acunéna elementary |
| con matter (abstract) | gícon problem, kocon secret, kacon revelation, kécon case, égcon crisis |


| cin picture | tecin figure, cìn mark, zocìn trace, utcìn character, pencìn <br> track, ciun sign, siunet signal, mancin photograph, <br> mancinar camera |
| :--- | :--- |
| cén fashion | utcén genre, secén procedure |
| cún object | cúnet article, cúfi effects |

## Putting (ber)

|  | ber to put |  |
| :---: | :---: | :---: |
|  | bler to carry | brer to haul |
| aber to put on | eber to stop | ober to take off |
| áber to raise | éber to contain | óber to lower |
| baer to lean on | beer to hold | boer to hold up |
| barer to press (down on) | beler to keep | boler to support (from below) |
| báer to lift | béer to block | bóer to hang |
| báler to rouse | béler to hold back, retain/conserve' | bóler to suspend |
| álber to elevate | élber to hold steady | ólber to lower |
|  | ézber to insert | ózber to extract |
|  | ézbler to carry in | ózbler to carry out |
| obaer to relieve | obeer to release, let go | oboer to drop |
| obaler to relax | obeler to abandon | oboler to shirk |
|  | obéer to yield |  |
|  |  | obóer to depend |
| úzbaer to squeeze | úzbeer to embrace | úzboer to smash |
| úzbaler to pinch |  |  |
|  | obéer to release |  |
| iber to receive |  | uber to send |
| bier to take |  | buer to give |
| íber to take away |  | úber to bring near |
| zíber to diffuse | zeyber to transpose |  |
| zíbler to carry around | zèbler to carry across, transport |  |
| biner to pull | bener to hold | buner to push |

Word Families

| ézbiner to draw in | ézbener to hold in | ézbuner to push in |
| :---: | :---: | :---: |
| úbiner to attract | úbener to hold near | íbuner to repel |
| ózbiner to extract | ózbener to hold out | ózbuner to expel |
| ábiner to pull up | ábener to hold high | ábuner to push up |
| ónbiner to yank apart | ónbener to hold apart | ónbuner to shove apart |
| ánbiner to attract | ánbener to adhere | ánbuner to combine C |
| vabier to accept |  | vabuer to volunteer; |
| zébirer to yank through |  | zéburer to stab (shove through) |
| kebier to choose |  | kebuer to disperse |
| vobier to refuse |  | vobuer to deny |
| embier to occupy |  | embuer to give way |
| gorcbier to take part |  | gorcbuer to give out shares |
| pitbier to fish |  |  |
| jobier to borrow |  | jobuer to lend |
| émbier to replace |  | émbuer to resign |
| ánabier to collect |  | ónabuer to scatter |
|  |  | buér to remit |
|  |  | buler to accord |
|  |  | bùler to attribute |
|  |  | bùrer to concede |
| zòbier to take back |  | zòbuer to give back |
| ifbier to welcome |  | ifbuer to offer |
|  |  | vegbuer to delegate |
|  |  | ifbuler to consacrate |
|  |  | ifbùler to dedicate |
|  |  | ifburer to sacrifice |
| nucbier to bù |  | nicbuer to sell |
| nacbiler to expend |  | nacbuler to allocate |
|  |  | ifburer to sacrifice |
|  |  | bluér to confer |
|  |  | zíbuer to distribute |
| obier to relinquish |  | obuer to deprive |
| bin receipts |  | bun donation |


|  |  | ivbun gift |
| :---: | :---: | :---: |
| baner to gesticulate |  | boner be calm |
| baaner to shake |  | booner to be still |
| banler to shake |  |  |
| bànler to shudder |  |  |
| baneter to rock | baaneter to vibrate |  |
| abaner to caress |  |  |
| albaner to wipe |  |  |
| ovbaner to resist |  |  |
|  |  | bos quiet |
|  |  | obos trouble |
|  |  | bòs quiet |
|  |  | obòs worry |
|  |  | óbos care |
|  |  | óbós anxiety |
|  | bén manner |  |
|  |  | búer to reach (out to) |
|  |  | búner to touch |
|  |  | brúner to contact |
|  | bemer to maintain |  |

## Going (per)

|  | per to go |  |
| :---: | :---: | :---: |
| aper to get on | eper to stop | oper to get off |
| paer to stand | peer to stay | poer to hang |
| áper to get up | éper to intervene | óper to get down |
| álper to rise/ascend | élper to block | ólper to sink'/descend' |
| âlper to climb up | ôlper to bow |  |
| árper to soar |  | órper to tumble |
| áprer to scamper up | ... | óprer to collapse |
| páer to jump | péer to stand still | póer to drop |
| páner to leap | péner to seize | póner to dive |
| párer to shoot up | pénuer to attack | pórer to plummit |
| iper go (away) |  | uper to come |

Word Families

| emiper to emigrate |  | emuper to immigrate |
| :---: | :---: | :---: |
| igiper to flee | igeper to stop suddenly | iguper to rush (toward) |
| jauper to come before, precede |  | jouper to come after, succeed |
| aíper to off with/take along |  | aúper to come along with/bring along |
|  |  | zoâuper to pick up (and bring back) |
| zoíper to go back |  | zoúper to return (come back) |
| íper to go away |  | úper to approach |
| ílper to escape |  | úlper to come home |
| íbemper to go in exile | ... ... | ... ... |
| pier to depart |  | puer to arrive |
| jopier to get a headstart |  | jopuer to arrive ahead of/beat |
| igpier to flee |  |  |
| piler to quit |  |  |
| cper to carry |  |  |
| ézcper to import | zècper to transport | ózcper to export |
| zòciper to take back | zícper to propagate | zòcuper to bring back |
| zàper to advance | zàper to cross | zòper to retreat |
| ánper to go together |  | ónper to separate |
| izper to head (straight) |  | uzper to veer, turn |
| zíper to tour |  | zúper to rotate |
| japer to precede | jeper to go along | joper to follow |
| zaper to go in front | zeper to go in the middle | zoper to go in back |
| ézper to enter | zéper to go through | ózper to exit |
| igper to run | zoigper to chase after | ugper to amble |
| ízper to pass up | uzper to curve | úzper to go around |
| kiper to limp | képer to stagger | 'kuper to avoid, sidestep |
| egézper to reinter | azézper to invade | egózper to reemerge |
| ifper to stroll | ifpoper to tour | ifpiper to cruise |
|  | zéper to penetrate |  |
| poper to travel | képoper to shuttle back and forth | zípoper to travel around |
| papier to take off | paper to fly | papuer to land |


| (flying) |  |  |
| :---: | :---: | :---: |
| pepier to ride off | peper to ride | pepuer to park |
| pipier to set sail | piper to sail | pipuer to dock |
| tôaper to walk, step | tuáper to crawl | tôuper to tiptoe |
| pan motion | pen seizure | pon rest |
| paz dance |  |  |
| paner to move | pener to seize | poner to rest |
| pazer to dance |  |  |
| opaner to freeze | opener to release | oponer to stir |
| paaner to shake | peener to catch | pooner to stay |
| apaner to massage | paaneter to vibrate |  |
| alpaner to rub |  |  |
| ópaner to reverse |  |  |
| kipaner to stumble |  | kupaner to slide |
| ónpaner to break |  |  |
| papaner to soar | pepaner to skate | pipaner to swim |
| ovpaner to block |  |  |
| paneter to balance |  |  |
| puner to throw | punrer to hurl | pùner to launch |
| púner to bump into |  |  |
| prúner to crash into |  |  |
| apéner to hit | apéneter to batter |  |
| apêner to tap |  |  |
| apénler to beat |  |  |
| ópéner to knock down |  |  |
| ónpéner to break |  |  |
| ónpêner to crack |  |  |
| ónpléner to smash' |  |  |
| ónpléner to burst |  |  |
| ónpréner to explode |  |  |
| pénuer to attack | ovpénuer to counterattack | opénuer to defend |
| páner to leap (up) | péner to lunge | póner to dive |
| ézpáner to jump in | zépáner to jump through | ózpáner to jump out |
| zàpáner to leap forward | zèpáner to leap across | zòpáner to leap backward |

Word Families

| pénarer to whip | páneter to skip | peneter to step |
| :--- | :--- | :--- |
|  | pòn respite | pos peace |

## Saying/talking (der, daer)

| dier to ask | der to say | duer to propose |
| :---: | :---: | :---: |
| updier to invite | ebdier to discuss |  |
| dider to question | doder to be silent | duder to answer |
| vader to affirm | veder to quibble | voder to deny |
| váder to swear |  | vóder to lie |
| ávder to excuse | évder to judge | óvder to accuse |
| fivader to approve |  | fuvader to condemn |
| fider to praise |  | fuder to curse |
| avder to advocate |  | ovder to oppose |
| frider to glorify |  | fruder to blaspheme |
|  |  | fúder to offend |
|  |  | flúder to insult |
|  |  | frúder to outrage |
|  |  | ufúder to threaten |
|  |  | fuébder to dispute |
| azder to shout | egder to repeat | ozder to whisper |
| jader to predict | jeder to narrate | joder to recount |
| ivder to thank |  | uvder to complain |
| ijder to introduce |  | ujder to conclude |
| fiader $t o$ recommend |  | fuader to criticize |
| ajder to evoke |  | ojder to foretell |
| tider to understand |  | tuder to explain |
| ágder to elaborate |  | ógder to summarize |
| diler to beseech | deler to announce | duler to submit |
| direr to require | dèler to declare |  |
|  | daer to speak |  |
|  | ágdaer to ramble |  |
|  | ébdaer to converse | fuébdaer to quarrel |


| dad language | daun speech | dod silence |
| :--- | :--- | :--- |
| din history | dìn story | diin recitation |
| dún name | zadún first name | abdún last name |
| dun word | dlun phrase | drun sentence |

## Writing/reading (drer, déder)

| drer to write | védrer to correspond, dúndrer to sign, abdrer to inscribe, gèdrer to copy, ézdrer to register, zèdrer to transcribe, tuúdrer to type, tuúdra typewritten, tuúdrud typist, cindrer to draw, drecìn letter (of the alphabet), dresìna literal, drecìnán alphabet, drecìnána alphabetical drecìnánser to alphabetize, dra written, odra unwritten |
| :---: | :---: |
| droer to erase | droun erasure, droar eraser |
| dren script | dreud writer, drenet article, drenetán series of articles, ébdren letter, ébdrenán mail, tuádren manuscript, jadren preface, jodren postscript, dedren prose, candren formula, vádren spelling, védren correspondence, vidrenán literature (belles lettres), drenán scripture, dreden report, cunándren program |
| drèn text | drèna textual, óbdrèn subtext, zúdrèn context, zúdrèna contextual |
| déder to read | dédud reader, dédudán readership, zídéder to scan, déd lecture, dédim lecture hall, dédar scanner |
| dén book | dénám book collection, dénánam library, dénunam bookstore, déngorc chapter, dénifud bookworm, dénabkum bookcover, dénembelar bookmark, déndúnán bibliography, dénet booklet, dindén storybook, novel, tiundén textbook |
| dreun document, file | dreunán dossier, documentation, dreuner to document, file |
| drec note | drecer to note, dodrec bulletin |
| drecin drawing, design | dreciner to draw, drecinud designer, drecinam design studio |
| drez poem | drezán poetry, drezet verse, drezut poet, drezéna poetic |
| dreván grammar | drevána grammatical, drevánut grammarian |
| dréner to print | drén print, drénar printer, drénam printshop, jubdrén newspaper, jubdrénán the press, jubdrénud journalist, jobdrén |


|  | magazine, cindrén illustration, zídrén poster, zídrénet <br> prospectus, drénet ticket, ózdréner to publish, ózdrénam <br> publishing house, dréncìn type, character (of a font), dréncìnán <br> font, dréncinnánam foundry |
| :--- | :--- |
| drar pen | drear pencil, dril ink |
| dof <br> cardboard |  |
| daf card | mircindaf map, ekdaf playing card, ébdrendaf postcard, dafán <br> stack of cards |
| def paper | defán stationary, defánam stationary shop, defet scrap of paper, <br> defcasam paper mill |
| dáf <br> notebook | dáfet book (of tickets, etc.), agdáf register |
| dúf sheet <br> (of paper) | dúfbuar sheetfeeder |
| dúv page | dúván ream of paper, mirmepán dúv web page, zàdúvper to <br> page forward |

## Society (dot)

|  | dota societal, dotcer to socialize (intr.) <br> dotin socialism, dotinat socialist <br> odota savage, barbaric, odotan savagery, barbarism, odotat <br> savage, barbarian <br> dotús social welfare <br> dotvàcan social security <br> dotbén custom, more (n.) <br> dotbéna customary |
| :--- | :--- |
| dat friend | ajdotbén tradition <br> ajdotbéna traditional <br> dotcén civilization, dotcéner to civilize |
|  | data friendly, datcer to befriend, datan friendship <br> dàt girlfriend <br> daat buddy, daater to buddy around, daatan buddyship <br> ifdat sweetheart, ifdatan romance, ifdata romantic <br> odat enemy, odata inimical, ovdata hostile, ovdatan <br> hostility <br> datibut host, dàtibut hostess, datibéa hospitable, datibéan <br> hospitality <br> datupud guest, visitor, datupudim guestroom, datupudem <br> reception area, datuper to be a guest, to visit, datup' visit |


| det comrade, <br> companion, <br> associate | detan comraderie, association, detcer to associate <br> àdet companion, àdetan company |
| :--- | :--- |
| dit citizen | dita civil, ditan citizenship, ditán citizenry <br> ditbén civility <br> doita civic |
| dut sir, Mr. | dùt madam, Mrs., dután messieurs <br> dutet master, lad <br> dùtet miss, mademoiselle, young lady <br> duut sire <br> ditús civil service |
| dout bourgeois | douta bourgeois (adj.), doutan bourgeoisie, doután <br> bourgeoisie (coll.) |
| aut person | auta personal <br> autbén personality <br> agaut personnage, v.i.p. <br> aután group, autána collective <br> autgran crowd, autgrana crowded, autgrancer to form a <br> crowd |
| aut individual | auta individual, autan individuality <br> anuta private, anutan privacy <br> aután group |
| áud commune | áuda communal, áudan community, áudana comunity- <br> related <br> áudin communism, áudinat communist |
| áut collective | áuta collective <br> áutan collectivity <br> áutser to collectivize, áutin collectivism, áutinat collectivist |
| át everyone | áta everyone's |
| tán people | tána popular, tánikcer to populate, tánikca populated, <br> tánika populous, tánukser todepopulate, also: tánòser to <br> depopulate, tánuka unpopulated, deserted <br> táncág population, táncágtut demographics <br> tân populace <br> tánin populism, táninat populist <br> tánifa popular, tánifan popularity, tánifser to popularize, <br> otánifa unpopular <br> tánbén custom, tánbéna customary |
| ter |  |

## State (dob)

| realm | chief | female counterpart |
| :--- | :--- | :--- |
| dob state | deb leader |  |
| adob empire | adeb emperor | adèb empress |


| edob kingdom | edeb king, monorach | edèb queen |
| :--- | :--- | :--- |
| idob principality | ideb prince | idèb princess |
| udob <br> marquisate | ideb marquis | idèb marquise |
| ódob earldom | ódeb count | ódèb countess |
| ádob barony | ádeb baron | ádèb baroness |
| édob duchy | édeb duke | édèb duchess |
| ídob domain | ídeb lord | ídèb lordess |
| údob tribe | údeb tribal chief |  |
| tándob republic | tándeb president (of the <br> republic) |  |

## Government (dab)

|  | daber to govern <br> dabdren ordnance <br> daba government <br> dabzem government center, capital <br> dab government <br> nacdab plocracy <br> abdaber to domacy <br> revolt, dabovpen abdabin <br> dabtun politics, dabtut polititician |
| :--- | :--- |
| deb chief, | daaber to administer <br> daaba administrative |
| leader | deber to lead, command <br> andeb dictator, autocrat <br> deban leadership <br> debán leadership (coll.) <br> debveg authority, debvegdren authorization <br> debòser to depose <br> debovper to rebel, debovpud rebel, debovpen rebellion, <br> vodebder to prohibit, vodebden prohibition, debden order |
| doob nation | dooba national <br> dooban nationality <br> doof flag |
| dub minister | duba ministerial, dubam ministry <br> ózdub ambassador, ózdubam embassy <br> ózdubet consul, ózdubetam consulate |
| dek combat | deker to combat <br> dekpan fight, dekpaner to fight, dekpanud fighter <br> dopek battle, dopekem battlefield <br> dropek war, dropeker to wage war, dropekud warrior, <br> dropekéna bellicose |


| damem <br> metropolis | damema metropolitan <br> obdamam colony, obdamemser to colonize, obdamemsud <br> colonialist |
| :--- | :--- |
| domem | domeam province/state, domeameb governor <br> domeem department (eg. of France), domeemeb prefect <br> domeim canton <br> domeum commune |
| dom city | doma urban, domaser to urbanize <br> dombén polity <br> úzdom suburb, domag metropolis <br> debdom capital, midom port, domgon district, domgob <br> quarter, domeb mayor, domam mayor's office, domab <br> municipality, domaba municipal <br> dòm town <br> doam borough <br> doem village <br> doim hamlet <br> domcin cityscape |
|  | domèp avenue <br> domeap street <br> domeep lane <br> mepet alley <br> gacmep intersection <br> omep impasse, cul-de-sac, deadend |
| ábmep highway <br> igmep expressway <br> abzèmep bridge, overpass <br> obzèmep underpass <br> zémep tunnel |  |
| ízmep bypass, detour <br> úzmep beltway <br> embdoma mep interstate highway (lit: intercity road) |  |
| doulevard | domzúm circle |
| domém square |  |

## Knowing (ter)

| tier to study |
| :--- |
| tiud student |
| titam school |
| atitam |
| elementary |
| school |
| etitam high |
| school |
| ititam |
| college |

ter to know
oter to ignore
keter to be curious
jàter to guess
egter to recognize
vater to be sure
veter to wonder
voter to doubt
ten knowledge, information
tuer to teach
tuud teacher
tutam institute
tutamán university
tut expert, scholar, scientist
tun science, -ology

| tin doctrine, -ism |  |  |
| :---: | :---: | :---: |
| ticer to learn ticun lesson | tecer to perceive, sense tecun data | tucer to instruct tucun instruction |
| tiser to agree | teser to think tújteser to dream ijtes idea jotes afterthought | tuser to convince |
| akteser to remember |  | okteser to forget |
| vateser to assume | veteser to suppose | voteser to discount |
| váteser to believe | véteser to wonder, weigh | vóteser to doubt |
| ánteser to agree |  | ónteser to disagree |
| avteser to favor | evteser to quibble | ovteser to oppose |
| fiteser to thank |  | futeser to regret |
| jàteser to plan |  | jòteser to reflect |
| kateser to recall | keteser to search one's memory | koteser to forget (deliberately) |
| keter to be interested | keten curiosity, ketea curious, ketenàa interesting, ketenukser to interest, oketer to be uninterested |  |
|  | tújteser to dream |  |
| tep mind | tepa mental | tepén attitude,aztepa intelligent, vátepa wise, tepbén method, tepbéna methodical, otepa imbecile |
| tèp spirit | tèpa spiritual | agtep genie |
| tez culture | teza cultural | óbtez subculture, tezser to cultivate |
| tén industry | téna industrial | joténa post-industrial,téntun technique, téntuna technical |
| tun science | tuna scientific | tut scholar |
| tin doctrine | tina doctrinal | tinéna doctrinaire |
| tún idea | túna ideal | túncer conceive of, túnca |


|  |  | conceptual, túnán ideology, <br> túnánud ideolog |
| :--- | :--- | :--- |
| tekóer to pay <br> attention | tekóa attentive | otekóa inattentive |

## Family (tod)

| tod family | toda familial <br> tòd home, tòda domestic <br> todana familiar |
| :--- | :--- |
|  | tàd wife <br> tadán household <br> tadcer to get married, tadca married, tadcen marriage, <br> tada marital <br> tatadca unmarried, otadcat bachelor <br> tadòcat widower, tadòcàt widower, tadóncer <br> to divorce, tadóncat divorcee, tadónc divorce <br> tadán husband and wife team, jatad fiance, jatàd fiancee <br> tadceat groom, taddceat bride, taddceata bridal <br> tadet brother, tadeta fraternal, tadetan fraternity, <br> tadetán fraternity (group), tàdetán sorority <br> tàdet sister <br> taodet brother-in-law <br> taódet sister-in-law |
| ted parent, father | teda parental, paternal <br> ted mother, tèda maternal <br> teda <br> tedòa orphaned, tedòat orphan, tedòan orphanhood, <br> tedòcer to be orphaned, tedòatam orphanage <br> tedet son, tedeta filial <br> tèdet daughter <br> teodet son-in-law <br> teódet daughter-in-law |
| tid uncle | tidéna avuncular <br> tid aunt <br> tidet cousin <br> tidet cousin (female)' |
| tud brother-in-law | tùd sister-in-law <br> tudet nephew <br> tùdet niece |
| tód father-in-law | tôd mother-in-law <br> tódet son-in-law <br> tôdet daughter-in-law |
|  |  |

Word Families

| tád grandparent, grandfather | tádéna grandfatherly tâd grandmother, tâdéna grandmotherly tádet grandson tâdet granddaughter tádán grandparents tádetán grandchildren |
| :---: | :---: |
| téd relative | téda related, tédan kinship tédcer to be related, tédán kin(folks), otéda unrelated |
| tíd god-parent, godfather | tídet godson tîdet goddaughter' |
| ajted ancestor | ajteda ancestral, ajtedán ancestry |
| jat ascendant |  |
| jot descendant | jòtan descendance |

## Human being (tob)

tob human being
tab body
taab lymph
taaba lymphatic
taabocet lymph gland
taeb muscle
taeba muscular
taib bone
taibán skeleton
taibána skeletal
taibàa bony
taibcer ossify
taibcen ossification
taibòa boneless
taibòser to debone
taob flesh
taoba carnal
egtaobcen reincarnation
taobàa fleshy
taobtelea flesh-eating
potaob meat
potaobtelea carnivorous
taub cartilege
tauba cartilagenous
taób skin
taóbil sweat
taóbiler to sweat
taóbilàa sweaty
petaób hide
taóf leather
taófud leatherer
taóféna leathery
tàab fat
tàaba fat-related
tàabòa fat-free
tàabél lard
tàabil oil
tàbiler to oil
tàabilém oilcan
tàabilàa oily
tàabàa fatty
taéb hair
tàabàa hairy
taébòa bald
taébòcer to go bald
taébòat bald person
taébòan baldness
taébòser to depilate
taêb fuzz
taêbàa fuzzy
pataéb feather
pataébán plumage
petaéb mane
pitaéb scales
pitaébàa scaly
taéf wig
taíb nerve
taíba nervous
taíbaanea nerve-rattling
taíbzem nerve-center
tap physique
tapa physical
íztapa metaphysical
taptun physiology
taptut physiologist
taf suit [of clothes]
tàf dress
teb head
tebném cranium
tebnéma cranial
teboc brain
teboca cerebral
ábteb forehead
óbteb chin
obteb neck
obteba cervical
zaobteb throat
zoobteb nape
tebzan face

Word Families
tebzana facial
tebzanábs face-lift
tebzanòa faceless
teab eye
teaba ocular
teabéb eyebrow
teabil tear
teabiler to weep
teabéb eyebrow
fateab eyelid
fateabéb eyelash
zeteab pupil
anteaba one-eyed
teac sight
teacer to see
oteaca blind
oteacan blindness
oteacat blind person
oteacacer go blind
oteacaser to blind
teacoker gain one's sight
teacoker lose one's sight
teacar eye glasses
teas look
teaser to look
igteaser to glance
ágteaser to stare
uzteaser to look askance
izteaser to look directly in the eye
teabzúen eyeball
teaczéc eye socket
teeb ear
teeba aural
fozteeb ear lobe
teec hearing
teecer to hear
teeca auditory
teecier to listen
teeciud listener
teeciudán audience
teecien audition
teeciar listening device
oteeca deaf
oteecser to deafen
oteecseá deafening
oteecat deaf person
oteecan deafness
teecar hearing aid

[^1]Word Families

teubib jaw<br>teubiser to chew<br>teupib tooth<br>teupiba dental<br>teupibut dentist<br>teupibutam dentist's office<br>teupicer to bite<br>teupicoger to nibble<br>oteupiba toothless<br>teupibán denture<br>tef hat<br>tefet cap<br>tefud haberdasher<br>tefam haberdashery<br>tep mind<br>tepa mental<br>tepcan sentiment<br>tepcana sentimental<br>tes thought<br>teser to think<br>ágteser to ponder<br>tesa cognitive<br>tesen cognition<br>teseá conceivable<br>oteseá inconceivable<br>tesoker to forget<br>otesokeá unforgetable<br>tesaker to remember<br>ter to know<br>oter to ignore<br>ota unknown<br>otea unaware<br>tuer to teach<br>tuna scientific<br>tut scientist<br>tuen teaching<br>tuena didactic<br>tuut teacher<br>tuután academe<br>tun science<br>tuun lesson<br>tier to learn<br>titam school<br>atitam grade school<br>etitam high school<br>ititam college<br>tiud student<br>tiudán student body

tiun study
tiuna scholastic
tiunán studies, scholastics</i
tin doctrine
tina doctrinal
tez culture
teza cultural
ten knowledge
tena awareness-related
teá known
tea aware
tean awareness
trer to recognize
tren cognizance
treá recognizable
trea cognizant
éztrer be conscious
éztren conscience
éztrea conscious
oéztrea unconscious
otra incognito
otrea incognizant
tec perception
tecer to perceive
teceá perceptible
tecpan emotion
tecpana emotional
tecpanea emotive
tecpanean emotivity
tecpaneá excitable
tecpaner to emote
tib trunk
zetib waist
tetibgan waist size
zotib back
zotiba dorsal
zotibók back pain
tiab chest
tilab breast
tilabil, bil milk
tilabiler to lactate
tilabila lactic
tilabilbier to milk
tilabilbuer to give milk
tilabiléna milky
tieb lung
tieba pulmonary
tieser to breathe
éztieser to inhale

Word Families

óztieser to exhale<br>tiebok pneumonia<br>tieboser to cough<br>tiib heart<br>tiiba cardiac<br>tiibil blood<br>tiibiler to bleed<br>tiibilàa bloody<br>tiibiloker to lose blood<br>tiibilotila blood-thirsty<br>tiibila sanguinary<br>tiibilánam bloodbank<br>tiibuf artery<br>tiibufa arterial<br>tiibufog arteriole<br>zòtiibuf vein<br>zòtiibufa venal<br>tiub belly<br>tiuba ventral<br>tiùb abdomen<br>tiùba abdominal<br>zetiub navel<br>zotiub buttock<br>tiób kidney<br>tióba renal<br>tióbok kidney disease<br>tióbil urine<br>tióbiler to urinate<br>tióbilem urinal<br>tióbila urinary<br>tiáb penis<br>tiába penile<br>tiáb vagina<br>tìába vaginal<br>ébtiába sexual<br>tiábcan phallus<br>tiábcana phallic<br>tiábòser to castrate<br>tiábòcat castrato<br>tiáv condom<br>tikob esophagus<br>tikoba esophageal<br>tikab stomach<br>tikaba gastric<br>tikeb liver<br>tikeba hepatic<br>tikebok hepatitis<br>tikebil bile

[^2]Word Families
tulob fingernail
tulocer to scratch
tulop claw
tuloper to claw
tuúb palm
tuúpaner to slap
tulib knuckle
tulipaner to knock
tób leg
tóab hip
tóaper to sit
tóeb thigh
tóib knee
tóiper to kneel
tóub shin
tôab foot
tôabektun podiatry
tôabektut podiatrist
tôaper to walk
tôapud pedestrian
tôapem sidewalk
tôapar walker
igtôaper to run
igtôapem racetrack
tôapúner to kick
tôapaner to stomp
tôabar pedal
tôaf shoe
tôafser to cobble
tôafsud shoemaker
tôafsam shoemaker's shop
tôafber to shoe
tôafba shod
apetôaf horseshoe
tôafmacil shoe polish
tôafnífet shoelace
tôafodet shoetack
tôeb heel
tôepaner to supplant
tôib sole
tôub toe
tôuper to tiptoe
tólob toenail
toba human
tobaser to humanize
otobaser to dehumanize
toban humanity
tobin humanism

[^3]tobeténa boyish
tobetan boyhood
tobog kid, midget
tobòg kiddie
tobóg brat
tobag giant
tobagéna gigantic
tobág monster
tobágéna monstrous
toc sense
toca sensorial
tocan sensation
tocer to sense
toceá sensible
tocea sensitive
boc organ
boca organic
bocán organism
bocet gland
boceta glandular

## Bodily functions (tab...er)

| body part | body function <br> tab bodyóbtaber to bow, stoop <br> áztaber to prostrate oneself <br> ábtaber to stand erect |
| :--- | :--- |
| teb head | óbteber to duck <br> tebciner to nod |
| tep mind | ter to know, etc. [see Mental Activities] |
| teacer eye | teaser see <br> teaser to look <br> teabiler to weep <br> zóteaber to squint <br> ágteaser to stare <br> igteaser to glance <br> igteacer to glimpse <br> teabciner to wink <br> teabigíjer to blink |
| taéb hair | taébòcer to bald |
| taób skin | taóbiler to sweat <br> taóboker to shed |
| taíb nerve | taíser irritate <br> iftaíser to tickle <br> taícer to itch |


| teeb ear | teecer hear teeser listen |
| :---: | :---: |
| teib nose | teicer to smell teiser to sniff teiseucer to snore teibiler to run at the nose teibilpuner to sneeze teibukser to blow the nose |
| teub mouth | teubiler to salivate teubilpuner to spit ézteuber swallow teubíjer to yawn teuder to shout |
| teubob lip | teubocer to kiss éztèbober to suck teubozer to smile teucozer to laugh |
| teubab tongue | teubaber to lick teucer to taste |
| teubib jaw | teubiser to chew |
| teipid tooth | teupicer to bite |
| tilab breast | tilabiler to lactate |
| tikab stomach | tikabilpuner to vomit |
| tieb lung | tieser to breath éztieser to inhale óztieser to exhale tiebil phlegm tiebukser to cough |
| tiib heart | tiibiler to bleed |
| tiób kidney | tióbiler to urinate |
| tuab shoulder | tuaber to shoulder |
| tuib elbow | tuiber to elbow |
| tuáb hand | tuábier to grab tuábuer to hand tuáser to manipulate ébtuáber to shake hands tuáciner to wave tuápéner to slap tuápéneter to pat tuálpaner to massage |
| tuúb finger | tuúcer to feel tuúpéneter to tap tuúdrer to type iztuúber to point |

Word Families

|  | ivtuúcer to tickle <br> tuúbginer to poke <br> tuúser to strum, fiddle |
| :--- | :--- |
| tôab foot | tôapéner to kick <br> tôaper to walk <br> igtôaper to run <br> kitôaper to hobble |
| tôob knee | tôocer to kneel <br> tôoper to crawl |
| tôeb heel | tôepéner to stomp |
| tôub toe | tôuper to tiptoe |
| tulob nail | tuloser to scratch |

## Bodily fluids and other liquids (tab...il)

| object | fluid |
| :---: | :---: |
| tab body | tabil humor |
| teab eye | teabil tear |
| teib nose | teibil mucus, snot |
| tilab breast | bil milk (tila dropped) |
| teub mouth | teubil saliva, spit |
| tiib heart | tiibil blood |
| tiób kidney | tióbil urine, piss |
| tikeb liver | tikebil bile |
| tikub intestine | tikubil feces, shit |
| taób skin | taóbil perspiration, sweat |
| tieb lung | tiebil phlegm, sputum |
| tobij seed | tobijil semen |
| mam sky | mamil rain |
| vafáb grape | vafil wine (vafáb shortened to vaf) |
| voz color | vozil paint |
| dr- write | dril ink |
| mag fire | magil petroleum |
| mag fire | maagil fuel |
| mag fire | maegil gasoline |
| mag fire | maigil kerosene |
| meg rock | megil cement |
| magmeb volcano | magmebil lava (fire mountain liquid) |
| án together | ánil glue |
| mel ground | meil mud |


| tel food | telil soup |
| :---: | :---: |
| ovob cereal | ovobil meal, porridge |
| bil milk | biel cream |
| fáb fruit | fábil juice |
| afáb apple | afábil apple juice |
| ufáb prune | ufábil prune juice |
| lafáb orange | lafábil orange juice |
| afáb apple | afil cider (afáb shortened to af) |
| kafáb olive | kafábél olive oil |
| vol vegetable | volél vegetable oil |
| levol beet | levolil beet juice |
| fab tree | fabil sap |
| ávob hop | ávil beer (ábov shortened to áv) |
| levaf ... | levafil liqueur |
| level sugar | levil syrup (el < tel food, il < til drink) |
| tul plate | tulil sauce |
| m- nature | mil water |
| mil water | miil liquid |
| óm ice | ómil dew |
| óm ice | ómbiil ice cream |
| t- human/animal | til drink |
| bek treatment | bekil medicine |
| bok illness | bokil poison |
| mag fire | magil fuel |
| cafaéb tea leaf | cafaél tea (-b organism to -1 liquid) |
| cefáb coffee bean | cefál coffee |
|  | él oil |
|  | fél wax |
| apelat bee | apelatel honey (-el food) |
| apelat bee | apelatél wax (-él oil) |
| c metaloid | cil acid |
| ílom 80-electron metalloid | ílomil mercury |
| mam sky | mal air (mam shortened to ma) |
| mal air | meal gas |
| mal air | mial vapor |
| amc 1-electron metalloid | amcal hydrogen (-al gas) |
| ímc 8-electron metalloid | ímcal oxygen |

Word Families
émc 7-electron metalloid émcal azote
Health (bak)

| bak health |
| :--- |
| baka healthy |
| baker to be healthy |
| bakcer to heal' |
| bakser to cure |
| baktun hygiene |
| baktut hygienist |
| bakam sanatorium |
| bakat healthy person |
| baktel health food |
| baktelam health food |
| place |
| baak sanitation |
| baaka sanitary |
| obaaka unsanitary |
| baakser to sanitize |
| tabak physical health |
| tebak mental health |
| bàk safety |
| bàka safe |
| bàker to save |
| bàkser to make safe |
| bàksud savior |
| obàk danger, peril |
| obàka unsafe, <br> dangerous <br> obàkser to endanger |


| bek treatment, remedy, cure | bok illness |
| :---: | :---: |
|  | boka sick |
| beka clinical | boker to be sick' |
| beker to treat | bokcer to fall ill |
| bekcer to heal [intr.] | bokser to sicken' |
| bekser to heal [tr.] | boktun pathology |
| bekler to cure, to remedy | boktut pathologist |
| beklacer to be cured | boktuna pathological |
| bektun medecine (practice of) | bokus pathogen |
| bektut doctor | bokam hospital |
| bekam clinic, hospital, care facility | bokamber to hospitalize |
|  | bokat patient |
| bekim hospital room | book fatigue |
| bekat patient | booka tired |
| bekut care-giver, nurse | bookcer to grow tired |
| bekil medecine, drug | bookser to tire |
| bekel pill | bookseá tiresome |
| bekila medicinal | bokil poison |
| bekilam pharmacy | bokiler to poison |
| bekiler to medicate | bokiléna poisonous |
| tebektun psychiatry | obokilam detox facility |
| tebektut psychiatrist | ombok cold |
| bekleá curable | teibok influenza, flu |
| obekleá incurable | vúrbok infection |
| obekeá untreatable | ambok inflammation |
| fubek mistreatment, abuse | tebok mental illness |
| fubeker to mistreat, to abuse | teboka mentally ill |
|  | tebokam insane asylum |
|  | tebokat mentally ill person |
|  | tebook boredom |
|  | tebooker to bore |
|  | tebookcer to grow bored |
|  | tebookca bored |
|  | oboker to cure, to heal, to save |
|  | obokut savior, healer |
|  | egbokcer to relapse |


| bik care | buk wound | bók pain |
| :---: | :---: | :---: |
| bikea careful | buka wounded | bôk ache |
| biker to care for | buker to wound | bôkcer to ache |
| biktun nursing | bukcer to be wounded | bóker to hurt |
| biktut nurse | bùk sore | (someon |
| bikam care facility | buket scratch | bókcer to be in pain |
| bikat care patient | buketer to scratch | bókeá painful |
| bikof bandage | bukof patch | bókòa painless |
| bikofer to bandage | bukofber to patch up | bókòsil painkiller |
| obik lack of care | bukat trauma patient, | bôker to ache |
| obiker to leave uncared for | victim | bóokcer to suffer |
| tebiker to care (about) | buuk harm | brók agony |
| otebik apathy, lack of | buuker to harm | bróker to torture |
| concern | buukeá harmful | brókeá torturous |
| otebiker to be unconcerned | buukòa harmless | brókcer to agonize |
| about | buukék danger | tebók anguish |
| obikea careless |  | tebókcer to anguish |
| otebikea unconcerned, apathetic |  |  |
| igéga bik urgent care |  |  |
| igéga bikim emergency room |  |  |

## Clothes (tof)

| body part | heavier material | lighter material |
| :--- | :--- | :--- |
| tob man | tof apparel | tov underwear |
| tab body | taf suit | pontav pijama |
| teb head | tef hat | tev scarf |
| teib nose | teif nose cover | teiv <br> handkerchief |
| teób neck | teóf tie | teóv collar |
| tuab |  |  |
| shoulder | tuaf shawl |  |
| tib trunk | tif vest |  |
| zetib waist | zetif belt | zetiv sash |
| tiab chest | nefiaf sweater | tiav shirt |
| tiub belly | tiuf corset | tiuv underpants |
| tilab breast |  | tilav brassiere |


| tiáb penis |  | tiáv loin cloth |
| :--- | :--- | :--- |
| tób leg | tóf pants |  |
| tôab foot | tôaf shoe | tôav sock |
| tuáb hand | tuáf mit <br> tuáfém pocket | tuáv glove |
| tiúb tail | tiúf train |  |

Habitation (tom)

| tom habitation | tomer to live, tomud inhabitant <br> tòm home, tòma domestic <br> toem place of residence <br> toom accommodation, lodging, toomer to accommodate <br> tomet apartment, tometán apartment building <br> tomof tent <br> utom property <br> tomtun architecture, tomtut architect, tomtuna <br> architectural <br> tombuer to lease,tombuud landlord, dren tombuena lease <br> tombier to rent, let, tombiud renter, lessee <br> tomnoc rent <br> tombel housekeeping, tombelud concierge ábtom hi-rise |
| :---: | :---: |
| tém residence | témer to reside témud resident téma residential vegdren témuda resident's permit otémud non-resident |
| tam house | tameb master of the house taam villa agtam chateau ivagtam palace ogtam cottage tamet cabin ogtamet hut potam hotel, igpotam motel zútam tower azcatam castle tamán housing complex tamózem yard tameézem courtyard abtamac roof zatam facade telam restaurant |


|  | epam station tilam bar tuzam museum dénam library titam school tutam institute nunam store cesam factory avolam bakery bikam hospital totam church spanam gym milbam bathhouse pemtam garage beelam warehouse vobésam farm |
| :---: | :---: |
| tàm building | tàmser to build, otàmser to demolish, otàms ruins, tàmsud builder <br> tamcer to found, tamc foundation mamtàm skyscraper |
| tem space | abtem attic <br> obtem basement <br> ágtem gallery <br> pemepem parking lot <br> ponem rest stop <br> ifekem playground <br> dropekem battleground <br> maparem airport <br> ózem yard, outdoors <br> ázem flat space <br> úbem neighborhood <br> íbem the far side <br> kum side <br> abem top <br> obem bottom <br> zam front <br> zom back <br> zem middle <br> zém indoors <br> kunadam frontier <br> kim slope <br> ábem upstairs <br> óbem downstairs <br> zém tunnel <br> zèm bridge <br> ifpem promenade <br> mimkum beach |

$\left.\begin{array}{||l||} \\ \\ \\ \\ \\ \hline \begin{array}{ll}\text { ifpopem resort } \\ \text { tujémem cemetery } \\ \text { tatem shrine } \\ \text { zúm zone } \\ \text { ubem destination } \\ \text { ibem origin } \\ \text { pum destination } \\ \text { pimstarting point } \\ \text { epem station } \\ \text { ijem starting point } \\ \text { ujem endpoint }\end{array} \\ \hline\end{array} \begin{array}{ll}\text { miltim bathroom } \\ \text { éstim bureau } \\ \text { datim salon, living room } \\ \text { zótim hall, corridor } \\ \text { tjujim bedroom } \\ \text { telim dining room }\end{array}\right\}$

## Places and containers

The "place" suffixes am, (e)m, im, ém, and éb are short for and recall tam house, tem space, tim room, ném box, and céb container.

## Buildings (-tam, -am)

| t- human-related | tam house |
| :--- | :--- |
| nun merchandise | nunam store |
| nac money | nacam bank |
| apelat bee | apelatam beehive |
| pancin cinema | pancinam <br> moviehouse |
| tel food | telam restaurant |
| til drink | tilam bar |
| tier to study | titam school |
| tuer to instruct | tutam institute |
| tata holy | tatam church |
| dénán book collection | dénánam library |

Word Families

| cuzán art collection | cuzánam museum |
| :--- | :--- |
| bekil drug | bekilam pharmacy |
| ep stop | epam station |
| pon rest | ponam hotel |
| bek treatment | bekam clinic |
| bok illness | bokam hospital |
| bik care | bikam nursing home |
| bak health | bakam sanatorium |
| avol bread | avolam bakery |
| dez show | dezam theatre |
| daz dance | dazam dance studio |
| cefál coffee | cefálam café |
| belud guard | beludam guardhouse |
| apet horse | apetam stable |
| koer to hide | koam shelter |
| def paper | defam stationery |
| túj sleep | tújam dormitory |
| voc flower | vocam floristry |
| par vehicle | param garage |
| pat bird | patam nest |
| vab grass | vabam grange |

## Places and spaces (-tem, -em)

| $\mathbf{t}$ - human-related | tem hall |
| :--- | :--- |
| ep stop | epem stopping point |
| tij birth | tijem birthplace |
| és work | ésem factory |
| ek play | ekem playground |
| dropek war | dropekem battlefield |
| koer to hide | koem hideaway |
| pier to depart | piem departure point |
| puer to arrive | puem arrival point |
| ab on | abem top |
| ob under | obem' bottom |
| áb up | ábem upstairs |
| ób down | óbem downstairs |
| éb between | ébem interstice |
| éz in | ézem interior |


| óz out | ózem exterior |
| :---: | :---: |
| ib from | ibem origin |
| ub to | ubem destination |
| ij start | ijem starting point |
| uj end | ujem endpoint, goal |
| úb near | úbem vicinity |
| íb far | íbem distance |
| za before | zam front |
| zo behind' | zom back |
| ze middle' | zem center |
| ák wait | akem waiting area |
| úz around | územ environment |
| zú round | zúm zone |
| uka empty | ukem vacant lot |
| kua lateral | kum side |
| kua lateral | kuem sidelines |
| kia oblique | kiem slope |
| kes trial | kesem proving ground |
| vab grass | vabem prairie |
| áza flat | ázem plain |
| íja open | íjem open area |
| zé through | zém transit area |
| zè across | zèm crossing/bridge |
| záa wide | zám expanse |
| zóa narrow | zóm tight spot |
| pon rest | ponem rest area |
| tapek sport | tapekem sports arena |
| ifzíp tour | ifzípem tourist site |
| ánup meeting | ánupem meeting venue |
| tujém coffin' | tujyemem cemetery |
| ézmelben burial | ézmelbem burial ground |
| tata holy | tatem shrine |
| tesbeler to memorialize | tesbelem memorial (site) |
| nun merchandise | nunem marketplace |
| hea which | hem where? |
| háa every | hám everywhere |
| héa any | hém anywhere |

Word Families

| hoa no | hom nowhere |
| :--- | :--- |
| hua this | hum here |
| hia that | him there |
| gea same | gem the same place |
| teler to eat | telem refectory |
| ób under | óbtem cellar |
| úja open | újtem court |
| ága long | ágtem gallery |
| áb above | ábtem attic |
| zaóz front outside | zaóztem front porch |
| zaéz front inside | zaéztem lobby |
| tier to study | titem study hall |
| tuer to teach | tutem class |

## Rooms (-tim, -im)

| t- humanrelated | tim room |
| :---: | :---: |
| tjujer to sleep | tjujim bedroom |
| teler to eat | teltim dining room |
| mageler to cook | magelim kitchen |
| és work | ésim bureau |
| mil water | miltim bathroom |
| tata holy | tatim chapel |
| vi nice | vitim salon |
| ák wait | áktim waiting room |
| za front | zatim lobby |
| zo back | zotim backroom |
| daer to talk | datim parlor |
| tapek sport | tapektim exercise room |
| teacibar $t . v$. | teacibarim t.v. den |
| mover to smoke | movim smoking den |
| ón apart | óntim compartment |
| éz in | éztim chamber |
| zóa narrow | zótim corridor/hall |
| tuer to teach | tutim classroom |
| cim chair | bimer to sit |
| cum bed | bumer to lie down |

Enclosures (-tém, -ném, -ém) and containers (-céb, -éb, -éf)

| t- human-related | tém residence |
| :---: | :---: |
| aza strong | azém safe |
| koer to hide | koém shelter |
| pon vacation | poném suitcase |
| $\boldsymbol{m o g}$ ash | mogém ashtray |
| óm ice | ómém ice chest |
| voc flower | vocém flower bed |
| voc flower | vocéb flower pot |
| il liquid + neer reserve | ilneéb tank |
| il liquid | iléb bottle |
| il liquid | ilcéb carafe |
| til drink | tiléb glass |
| til drink | tilcéb cup |
| el food | elcéb pot |
| tol food | toléb casserole |
| áz flat+tol consumables | áztoléb pan |
| telil soup | teliléb bowl |
| ber put | bém position |
| tab body | tabém posture |
| tes thought | tesbém method |
| tep mind | tebém attitude |
| eber to stop | ebém situation |
| uka empty | ukém slot, vacancy |
| nac money | nacém cashbox |
| noz jewel | nozém jewelry box |
| n- commercial | ném box |
| nac money | nacéf purse |
| n- commercial | néf bag |
| néf weave | néfém basket |
| faof wood | faoféb barrel |
| mak electricity | nakéb battery |

## Building structures and furniture (com)

```
moc floor [stage] amoc ground floor
```

|  | emoc second floor imoc third floor obmoc basement abmoc penthouse ébmoc mezzanine mocpar elevator (also: álbur) |
| :---: | :---: |
| mac wall | abmac roof obmac foundation ézabmac ceiling ézobmac floor uzabmac vault abzamac balcony abkumac ledge macsud mason mactén masonry (industry) macán masonry ózmac outer wall ézmac inner wall úzmac fence mefa mac brick wall macet fence ónsmac partition màc screen |
| mec door | mecag entrance-way zamec threshold |
| mic window | micet ticket window, porthole micof blinds micov curtain abmic sunroof micog skylight |
| muc stairs | mucnog step <br> mùc ladder zúpea muc escalator mucim stairwell igózpen muc fire escape |
| com item of furniture | comber to furnish comán furniture comser to make furniture comsud furniture maker milcom sink comiper to move |
| cam closet | telarcam buffet tofcam clothes closet déncam bookcase macam cupboard |


|  | comoc shelf tovcam linen closet ècam alcove |
| :---: | :---: |
| cem table | drecem desk <br> cèm pulpit <br> cemném drawer <br> cemof table cloth <br> cemób table leg <br> cemet board <br> úscemet serving tray <br> tilcem bar <br> cágcem counter <br> cemaper to sit down at the table (also: bemer) |
| cim chair | cìm seat agcim armchair ágcim couch <br> ciim bench ècim stool tôabcim footstool cimub arm rest cimzom seat back baanetcim rocking chair zoólbcim recliner milnef cim bucket seat cimbier to occupy a seat cimbuer to seat (someone) cimober to unseat cimaper to sit down (also: bimer) |
| cum bed | ```cuam cushin cuàm pillow cuem mattress cuav bedspread cuev sheet cuef cover cuim box springs cumnán litter cumaper to go to bed, lie down (also: bumer)``` |

## Food (tol)

| tol foodstuffs | toler to feed <br> tola alimentary <br> tolcéb pot <br> toléb casserole <br> áztoléb pan <br> tolam grocery store, market, tolamud grocer |
| :--- | :--- |
|  |  |

$\left.\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { tolar eating utensil, tolarán dishes } \\ \text { tolnún produce, groceries }\end{array} \\ \hline & \begin{array}{l}\text { teler to eat } \\ \text { otel hunger, otelcer to hunger, otela hungry, otelag famine, } \\ \text { oteltujer to starve (to death) } \\ \text { telun edible (item) } \\ \text { vitelyd gourmet } \\ \text { vitelea gourmand } \\ \text { telam restaurant, telamet cafe, telamseb restauranteur } \\ \text { telém buffet } \\ \text { teléb plate, telébar serving tray }\end{array} \\ \hline \text { tel (prepared) } \\ \text { food } & \begin{array}{l}\text { telar fork, telarán place setting, cutlery } \\ \text { telim kitchen }\end{array} \\ \text { telten culinery } \\ \text { telsur cooker } \\ \text { telsud cook }\end{array}\right\} \begin{array}{ll|}\text { telseb chef } \\ \text { telil soup, teliléb soup bowl } \\ \text { magtelur stove } \\ \text { teleá edible, oteleá inedible }\end{array}\right\}$

|  | ébtul snack <br> tuléb platter <br> tulil soup <br> tulánag banquet <br> tuldren menu <br> tulusud waiter, tulusudán wait staff, tulusdeb head waiter, maitre $d^{\prime}$, tulúsnac (restaurant) tip <br> tuljób mealtime |
| :---: | :---: |
| -ol/ól (solid) | taol meat,taolam butcher shop, taolud butcher, taolil stew, úgtaol beef steak, ápetaol sausage, ápetól ham <br> mimol salt, mimolika salty <br> vavol salade, greens <br> avol bread, avolet bread crumb, abavol crust, avolek flour, <br> avolam bakery, avolud baker <br> ébcavol sandwich <br> cabavol slice of bread <br> ázavol pancake, flatbread, pizza <br> úzavol wrap, burrito <br> góavol crepe <br> leavol pastry <br> leávol cake <br> aleavol brioche <br> umleavol cookie <br> umcavol cracker, biscuit <br> uzleavol croissant <br> afleavol fruit pie <br> taoleavol meatpie <br> leavolser to make pastry <br> leavolsud pastrymaker <br> leavolam patisserie |
| -el/él/ál (semisolid) | eopel beef, gocra eopel ground beef, gocra eopel ébcavol hamburger <br> uopel mutton <br> ápel pork <br> él oil <br> kafabél olive oil <br> gevobél corn oil <br> magél cooking oil <br> tàal fat, grease <br> mageler to cook <br> magéler to fry <br> level sugar, levela sweet, leveler to sweeten, lèvel candy, levil syrop, lèvelud confectioner, lèvelam confectionary elcéb pot <br> ápel pork, ápelán pork meats, ápelam pork butchery |
| -il (liquid) | iléb bottle tuil sauce |


|  | tulil soup <br> vafil wine <br> ígvafil vinegar <br> afil cider <br> ávil beer <br> levafil liqueur <br> bil milk, bilam dairy, bilíg cheese, bilúg butter <br> bilúgl yoghurt <br> abil cream <br> fáblevil compote <br> fábil fruit juice <br> taobil gravy, jus <br> levil syrup <br> apelatil honey |
| :---: | :---: |
| mag- | mageler to cook, magelur cooker magiler to boil, magilur boiler màgiler to broil, màgilur broiler magler to roast, maglúr roaster abmagler to grill, abmaglur grill magéler to fry, magélur frier magoler to bake, magolur oven magler to roast, maglur roaster magtelur stove magsur burner |
| gopar knife |  |

## Time (job)

| job time | joba temporal ponjob vacation ógjob short while, ógjoba temporary ívjob leasure ágjob longtime, ágjoba chronic jejoba chronic zé job over time ádjob eternity, ádjoba eternal gonjoba part-time jobúgc delay, jobúgser to delay, jobúgca delayed jobigc haste, jobigcer to hurry kóca (jonabca) jobem |  |  |
| :---: | :---: | :---: | :---: |



|  | jileb December |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| jub day | juba daily éjub week, éjuba weekly juab Monday jueb Tuesday juib Wednesday juub Thursday juób Friday juáb Saturday juéb Sunday ponjub holiday ívjub day off ádjubu every day, ádjuba daily jubdén diary jubdrén newspaper, jubdréna journalistic, jubdrénud journalist zojub yesterday udjub today zajub tomorrow ivjub feast, ivjuber to feast, ivjuber to celebrate tijub birthday agtijub Christmas zòtujub Easter |  |  |  |  |
| jób <br> hour | jóba hourly jóbar clock tíjóbar alarm clock tubjóbar wrist watch jóbándaf schedule |  |  |  |  |
| jáb <br> minute | jâb moment, jâba momentary |  |  |  |  |
| jéb second | jêb instant, jêba instantaneous |  |  |  |  |
| maj daytime | maja diurnal <br> ijmaj dawn <br> imaj morning <br> ujmaj dusk <br> umaj evening <br> èmaj noon <br> joèmaj afternoon <br> fimaj good day! <br> fiumaj good evening! | ádmaju every morning | udmaju this morning | zomaju <br> yesterday morning | zomaju tomorrow morning |



## Time expressions

| expression | example |
| :--- | :--- |
| ja before | Yujo mani ja et pio. Turn out the lights before you <br> leave. |
| je while | Tobob tuja je tújá. The child died while sleeping. |

Word Families

| jo after | Jo teacera mavi it igípa. After seeing the flames, he fled. |
| :---: | :---: |
| ji since | Aita tijé ga fià ji dropek úja. We have been living better since the war ended. |
| ju until | Ju et agco, et ho tido. Until you grow up, you won't understand. |
| já early | Ga já ga fi. The earlier the better. |
| jé on time | Valco puer jé. Be sure to arrive on time. |
| jó late | Ho puo já! Don't arrive late! |
| zojubu yesterday | Hè mamila zojubu? Did it rain yesterday? |
| udjubu today | Iyt deuzo udjubu. She is going to sing today. |
| zajubu tomorrow | At ikso dén zajubu. I will finish the book tomorrow. |
| zomoju last night | Hè et fi túja zomoju? Did you sleep well last night? |
| udmoju tonight | Udmoju ho eco màri mamu. Tonight there will be no stars in the sky. |
| zamoju tomorrow night | Tijuba vitul aco zamoju. The birthday feast will occur tomorrow night. |
| jazojubu the day before yesterday | Vab gorfàa jazojubu. The grass had been mowed the day before yesterday. |
| jozajubu the day after tomorrow | Avolam íjco jozajubu. The bakery will open the day after tomorrow. |
| jà already | Uvà eta ted jà pia. Sadly, your father has already left. |
| gaj still | Hè pati gaj tijea? Are the birds still alive? |
| jù yet | Hè et jù teuca hia pancin? Have you seen this movie yet? |
| aju in the past | Uti sá hubén aju. People used to act that way in the past. |
| eju at present | Eju ait ukce mil. At present, we are out of water. |
| oju in the future | Et fi to oju. You'll know better in the future. |
| ji idjob since then, thenceforth | Ji idjob eca hoga sejeti. Since then, there have been no further incidents. |
| jo udjob from now on, henceforth | Jo udjob at éso ga tepazà. From now on I will work more diligently. |
| ju idjob until then | Ju idjob at ho teacàa ídcuni. Until then, I had not seen such things. |
| ju udjob until now, up to now, so far | Hot ózpa ju udjob. Nobody has emerged so far. |
| $\mathbf{i j u}$ first | At vagó iju ivader et av updier at. I would first like to thank you for inviting me. |
| jò next | Jò ait teeco drez Sekspira. Next we shall hear a |


|  | poem by Shakespeare. |
| :---: | :---: |
| uju finally | Elánidpar uju pua. The train has finally arrived. |
| gloja recently | Iit gloja tadca. They recently married. |
| glojo soon | Jobipar co him glojo. The taxi will be here soon. |
| glaja a long time ago | Hua pancin ózpa glaja. That movie came out a long time ago. |
| glajo a long time hence | Dropek ujco glajo. The war will come to an end a long time from now. |
| gója just | At gója ijeaca eta vóon. I just now noticed your error. |
| úbji just | At úbji ijeaca eta vóon. I just now noticed your error. |
| úbju almost | At úbju aka. I almost won. |
| ja ago | Keus aca ja e jub. The accident occurred two days ago. |
| glaj for a long time | At ésa hum glaj. I worked there for a long time. |
| gloj for a short time | At ésa him anà gloj. I worked here only for a short time. |
| ókbénà suddenly, all of a sudden | Yokbénà teuzibar ceusa. Suddenly the phone rang. |
| igjobu suddenly, all of a sudden | Igjobu teuzibar ceusa. Suddenly the phone rang. |
| odjobu? when? | Odjobu et sa uda cizun? When did you do this painting? |
| adjobu when (relative) | At sa cizun adjobu at ca joga. I did the painting when I was young. |
| ji odjob? since when? for how long? | Ji objob et ce tadca? How long have you been married? |
| ju odjob until when?, how long | Ju odjob et drecéo eta dén? How long will you be writing your book? |
| idjubu then, at that time | Et ca via idjubu. You were beautiful then. |
| udjubu now, at this time | At ése ge tuut udjubu. I work as a teacher now. |
| ádjubu always, all the time | Iyt ádjubu teubòze. She always smiles. |
| údjubu sometime | Iyt egteapo údjubu. She'll visit again someday. |
| ódjubu never | Ata épet ódjubu épede. My dog never barks. |
| ju ádjub forever | Iit áke beer tadca ju ádjub. They hope to remain married forever. |
| édjubu ever, anytime | Et vege teaper édjubu et vage. You can visit anytime you like. |
| údjubu sometime | At teapo et údjubu úboju. I will visit you sometime in the near future. |


| ogedjubu some other time | Et égo uper ogedjubu. You'll have to come some other time. |
| :---: | :---: |
| ídjubu at such a time | Ait ége doer ídjubu. We must be silent at such a time. |
| gedjubu at the same time | Yad e nidpari pua gedjubu. Both trains arrived at the same time. |
| vo...gaj no longer, anymore | At vo vage gaj teacer et. I don't want to see you any longer. |
| odjopi? how often? | Odjopi et pe pancinu? How often to you go to the movies? (jop instance in time) |
| ajop once | Et ége utmilabaner ajop jubè. You must bathe once a day. |
| ejopi twice | At vísa par ejopi. I washed the car twice. |
| glajopi often | Ait deuze ánà glajop. We often sing together. |
| glojopi seldom | At glojopi teaca ídcun. Seldom have I seen such a thing. |
| gaijopi sometimes, at times | Iyt ceace geijopi jó. She sometimes shows up late. |
| ojop never | At ojop vóde. I never lie. |
| ídjop so often | Et ídjop abdabe ébdaen. You dominate the conversion so often. |
| gejopi as often | Upo gejopi vé et vage. Come as often as you like. |
| gajopi more often | Ata ted datupe gajopi vé ja. My father visits more often than before. (vé than) |
| gojopi less often | At zípe gojopi udjubi. I travel less often these days. |
| géjopi quite often | Nun ce géjopi nasaga. The merchandise is quite often expensive. |
| grajopi too often | Et tile grajopi. You drink too often. |
| grojopi too infrequently | At ózpe tam grajopi. I get out of the house too infrequently. |
| gájopi as often as possible | Et ége milaber voci gájopi. You should water the flowers as often as possible. |
| gójopi as seldom as possible | At ázte maru gójopi. I lie in the sun as seldom as possible. |

## Beginning and ending (ijer, ujer)

The following table shows $\mathbf{j}$ (time) words that forms parallels on the basis of the $\mathbf{i}$ $\Rightarrow \mathbf{u}$ ordinal vowel opposition:

| ijer to begin | ujer to end |
| :--- | :--- |
| $\mathbf{i j}$ beginning | $\mathbf{u j}$ end |


| ija initial | uja final |
| :---: | :---: |
| tijer to be born | tujer to die |
| tij birth | tuj death |
| tija natal, born | tuja mortal, dead |
| tijser to birth | tujser to kill |
| majij dawn | majuj dusk |
| tobij ovum> |  |
| vabij seed |  |
| patij egg |  |
| magijer to spark | magujer to extinguish |
| manijer to light | manujer to turn off |
| esijer to set in motion | esuj to terminate |
| tesij idea |  |
| jabij new year's | jabuj year's end |
| íjer to open | újer to close |
| íj opening | új close |
| íja open | úja closed |
| íjar key | újar lock |
| íjem passageway | újem dead end |
| íjofer to unfold | újofer to fold |
| íjden introduction | újden conclusion |
| tíjer to wake | tújer to sleep |
| tíj wakefulness | túj sleep |
| tíja awake | túja asleep |


| aj past | aju in the past, then | ajer to delay | taj former <br> life | ja <br> before | já early |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ej present | eju at present, now | ejer to wait | tej life | je <br> during | jé on <br> time |
| $\mathbf{0 j}$ future | $\mathbf{0 j u}$ in the future | $\mathbf{o j e r}$ to <br> preempt | toj afterlife | jo after | jó late |
| ij <br> beginning | $\mathbf{i j u}$ in the beginning, <br> at first | ijer to begin | tij birth | ji since |  |
| $\mathbf{u j}$ end | uju in the end, at last | $\mathbf{u j e r}$ to end | tuj death | $\mathbf{j u}$ until |  |

## Natural phenomena (mor, mar, etc.)

| mòr cosmos | mòra cosmic, mòrtun cosmology |
| :---: | :---: |
| mar sun | mara solar, marnad sun ray |
| màr star | màra stellar, màrán constellation, màránag galaxy, màrtun astronomy |
| mer planet | mear Mercury meer Venus meir Earth meur Mars meór Jupiter meár Saturn meér Uranus meír Pluto |
| mir world | mira global <br> amir north, amira nordic omir south, omira southern imir east, imira oriental umir west, umira occidental emir equator, emira equatorial |
| mur moon | mura lunar <br> mùr satellite <br> muar comet <br> muer meteor <br> muerog meteorite |
| mol nature | mola natural, omola artificial |
| mul matter | mula material, multun physics <br> mulet particle <br> amul atom <br> amulán molecule <br> amulet atomic particle <br> amula atomic, amulzem nucleus, amulzema nuclear <br> emul electron <br> imul proton <br> umul neutron <br> umulet neutrino <br> ámul quark |
| mal air | mala aerial màl gas maal atmosphere mael troposphere mail stratosphere maul ionosphere maól exosphere malp airwave |
| mam sky | mama celestial, mamnad horizon, mamèzún rainbow, mamceus thunder |

Word Families

|  | mamevan weather mamevantun meteorology |
| :---: | :---: |
| maem space | maema spatial, paem spacecraft, maempopud astronaut |
| map wind | maap gust maep breeze maip puff mapag cyclone mapaget storm maper to blow maiper to puff |
| maf cloud | maaf stratus maef nimbostratus maif cumulus mauf cumulonimbus maóf stratocumulus màaf allocumulus maéf allostratus maíf cirrocumulus maúf cirrostratus malof cirrus óbmaf nimbus mafàa cloudy mafòa cloudless |
| mel ground, earth | mela terrestrial, meltun geography ánmel continent, ánmela continental ónmel island, ónmela insular |
| mem country | meam region meem land meim countryside memcin scenery memud peasant ázmem plain ázmeam valley ázmeem dale ukmem desert ènukmem steppe vabem prairie vabemet meadow ébmem isthmus ézmelber to bury |
| mep way | mèp route meap road meep path meip lane, track meup pass mepet alley |


|  | uzmep detour izmep bee-line kumep sidewalk domep highway óbmep subway |
| :---: | :---: |
| meb mountain | mebán mountain chain <br> ázmeb plateau <br> miekmeb dune <br> magmeb volcano, magmeba volcanic, magmebil lava <br> mèb mount <br> meab hill <br> meabet hillock |
| met garden | zamet front yard, zomet back yard, kumet side yard, vocmet flower garden |
| med park | potmed $z o o$, fabmed arboretum, pemed parking lot |
| mom underground | moma subterranean <br> mompar subway <br> momesem mine, momesud miner |
| mob precipice | mòb abyss moab canyon moeb ravine moib cave moub ditch |
| mop tunnel |  |
| mim sea | mima marine mimag ocean miam lake miem pond miim marsh mióm swamp ézmim bay midom port mimkum shore mimázkum beach mimuzkum gulf ébmim strait mimpop ocean cruise mimbok seasickness mimanar lighthouse |
| mit basin |  |
| mip river | mipa fluvial, miper to flow, run miap river <br> miep stream <br> miip brook |


|  | mipet tributary <br> igmip torrent, igmipa torrential ébmip canal mipkum riverbank mimzèmep bridge mipugar dam mipàa riparian |
| :---: | :---: |
| mil water | mila aquatic <br> óbmila underwater <br> mamil rain <br> mamiler to rain <br> mileter to drip, milet drop, miletog droplet, mileteá drippy <br> umilóbiner to drown [intr.] <br> milpóer to drown [intr.] <br> miltujer to drown, miltujat drowning victim, miltuj drowning <br> milper to swim <br> milber to water, irrigate <br> milpón waterfall <br> milabaner to wash [tr.], utmilabaner to bathe, milaban bath, milabanim bathroom, milabanam bathhouse, milabaném <br> bathtub <br> miltim bath, washroom <br> milcom sink <br> ilper to flow, ilp flux, current <br> iligper to gush, stream <br> ilaper to float, ilapar flotation device <br> ilukser to flush, iluksar toilet <br> ilikser to flood, iliks inundation <br> gámiluper to flood, gámilup flood <br> ilóper to downpour <br> ilzíber to spray <br> ilpúner to squirt <br> ilpáner to gush <br> iloker to leak, ilok leak <br> ilpéner to splash <br> tiibiloker to bleed <br> ilzéper to leak, ilzép leak <br> ogilzéper to trickle, ogilzép trickle <br> zoílper to back up with water, zoílp reflux <br> ilpan wave <br> ilpanet ripple <br> ilápóper to undulate, ilápóp undulation, wave action <br> mimupip tide, mimupipa tidal <br> mimbin tide, mibina tidal <br> mimpán surf, mimpánud surfer, mimpán faof surfboard <br> ilbuner to pump, ilbunar pump <br> milbiner to pump, draw water, milbinar pump, milbinéc well ilaber to pour |


|  | utmilzíber to take a shower <br> milbím spring <br> tilcom drinking fountain <br> milbíc fountain <br> mimper to navigate, sail, mimpar ship <br> mimpoper to sail, travel by sea, mimpop cruise, sea voyage, <br> mimpopud sea voyager, mimpopar cruise ship |
| :--- | :--- |
| ima wet | imcer to get wet,imsrer to drench, ìmser to dampen, iman <br> wetness, iman humidity, olimsar dehumidifier |
| uma dry | uman dryness, umser to dry, umsar dryer, umca dried |
| ama hot | aman heat, amanàg temperature, àma warm, àman warmth, <br> amser to heat, amsar heater |
| oma cold | oman cold, òma cool, omser to cool, omsur refrigerator, <br> omser to refresh, omsea refreshing, omsun refreshment |
| óm ice | óma frozen, ómser to freeze, ómsur freezer <br> óm frost, óoma frosted, óomcer to frost over, olóomser to <br> defrost, ovóomil antifreeze |
|  | maer to shine <br> manet glimmer, maneter to glimmer <br> manser to light up <br> maníjer to turn on the light <br> manújer to turn off the light <br> manager to illuminate <br> màna clear, mànser to clarify, mànan clarity <br> lomàna opaque <br> manig sparkle, maniger to sparkle |
| kumaner to reflect |  |
| zòmaner to mirror, zòmanar mirror |  |$|$| magar match, magam fireplace |
| :--- | :--- |
| magser to burn, maggar burner |
| magcer to burn (intr.), magca burned, magcun a burn |
| mageler to cook, magelud a cook, magelun cuisine, magelar |
| oven, magelur frying pan |
| magújer to extinguish a fire, magújud fireman, magújam' |
| fire department |


| mak electricity | maka electrical, makser to electrify, makéna electronic, maktun electronics, makveg electric power, makvegam electric power plant |
| :---: | :---: |
| mov smoke | mover to smoke, movikca smoke-filled, movet plume |
| mon dark | mona dark, moncer to grow dark, monser to darken (tr.) otmon shadow, otmonéna shadowy mòn shade, mòna shady, obscure, mònan obscurity |
| meg stone | megéna (made of) stone, megàa rocky, megunkum cinder block <br> megag boulder <br> megog pebble <br> meag marble <br> meeg slate <br> meig granite <br> meug clay <br> meóg clay <br> meág chalk <br> meég limestone <br> meíg alabaster <br> meúg rubble stone <br> mealog sandstone <br> megóg gravel <br> mieg pebble <br> mameg coal <br> maameg anthracite <br> èmameg coke <br> maemeg peat <br> maimeg lignite |
| mek dust | mék powder méik paste mékar mill mékam mill meil mud |
| mef brick | abmef tile |
| mev porcelaine |  |
| mez gemstone | ```amez diamond emez topaze imez ruby ómez sapphire ámez amethyste vamez emerald mezán jewelry, mezánam jewelry shop``` |

## Money (nac)

$\left.\begin{array}{|l|l|}\hline \text { naz } \\ \text { value }\end{array}\left|\begin{array}{l}\text { nazer to be worth, nazika valuable, nazuka worthless, nazder to } \\ \text { evaluate, nazter to esteem, utnaz merit, utnazer to deserve, } \\ \text { utnazika meritorious, onazteá inestimable, nazta esteemed }\end{array}\right| \begin{array}{|l|l|}\hline \text { nas } \\ \text { price }\end{array} \begin{array}{l}\text { nasaga expensive, nasoga cheap, nasán rates, nasuka priceless } \\ \text { nàs cost, nàser to cost, nàsaga costly, nàsóa cost-free, nàsán costs, } \\ \text { nàsder to cost out }\end{array}, \begin{array}{l}\text { nacet change, nacetéb coin purse, nacdref check, jonacdref bill, } \\ \text { nacán capital, ánac funds, ánàc sum, nactun finance, donactun } \\ \text { economy, nacam bank, nacika rich, nacuka poor, úsnac gratuity, } \\ \text { tip, nasak profit, nacok loss, gornacdren stock, gornacdrenam } \\ \text { stock market, yebkyanac commission, nacyeg debt, nacyegaya } \\ \text { indebted, nacyeger to owe money }\end{array}\right\}$

## Merchandise (nun) and materials (nof)

| nun <br> merchandise | nunam store, nunàm boutique, nunamet shop, nunamán <br> shopping center, nunem market, nunud merchant, nunébkán <br> commerce, nundel advertisement, nunemtun marketing, nuler <br> to acquit, |
| :--- | :--- |
| noz jewel | nozud jeweler, nozam jewelry shop, nozán jewelry, nozika <br> bejeweled, tuóz bracelet, obtez necklace, tuúz ring, tiaz broche, <br> teez earring, tez crown, teiz nose ring, nozkobilud jewel thief |
| nof material | nofser to weave, nofsar loom, nofán textiles |
| tof clothes | taf suit <br> tif vest, etc. |
| nov linen | nòv sheet <br> novet rag <br> milnov towel <br> milnovet handtowel <br> milov wash cloth |
| naf cloth | naaf drape/curtain, naafán drapery <br> naef canvas |

Word Families

|  | naif velvet nauf net |
| :---: | :---: |
| nef knit, yarn | nefser to knit, yarn neef lace |
| nif thread, wire | nifser to thread, wire <br> nìf string <br> nifet filament <br> nifar needle <br> nivar pin, ánifer to sew, ánifur sewing machine, ániftén couture, nifòa wireless, maknif electrical cord |
| náf knot | náfser to knot |
| níf cord | nífet lace nífetog braid |
| néf sack, bag | ném box, némag case, poném suitcase, áznéfem basket |
| nóf film | nóv ribbon |
| núf button | núfec buttonhole (zéc hole) |
| fuf pipe | fùf tube <br> tilfuf drinking straw <br> tiibuf artery (fub branch) |
| zúf post | zúfet column, pimzúf mast, zézúf cross-beam |
| zúv stick | zúvet cane, ágzúv pole |
| faof board | faocéb barrel (fab tree + nof material + céb container) |
| mez crystal | meg stone + naz value |
| zéf glass | zév glass <br> cinzéf mirror, cimzéf window pane (zéteaser see through + nof material) |
| utaéf wool | upet sheep |
| apeéf silk | apeét worm |
| favof cotton | favob cotton plant |
| fivof hemp | fivob hemp plant |
| fuvof jute | fuvob jute plant |
| favov cotton wool | favob cotton plant |
| taóf leather | taób skin + nof material |
| taéz fur | taéb hair + naz value |


| nog degree | anoga primary <br> enoga secondary <br> inoga tertiary <br> unoga quaternary |
| :---: | :--- |


|  | henoga to what degree, how? <br> nogper to step, zànogper to advance, progress, step ahead, zònogper to step back, regress, ábnogper to step up, be promoted, advance, óbnogper to step down, be demoted, nogà by degrees <br> nòg grade, step, nogéna gradual, ujnògper to graduate, ujnògpud graduate <br> noog stage, level, status, enooga bi-level, two-staged, ábnooga high-status, dotnoog social status, class, óbdotnooga low-class, kódotnoog caste |
| :---: | :---: |
|  | anaga one-dimensional enaga two-dimensional inaga three-dimensional glanaga multi-dimensional |
|  | nàg measure, size', nàger to measure, genàga commensurate, onnàgeá immeasurable, zenayga moderate, ozenayga immoderate, zenaygaser to moderate, naygar meter (measuring device), nayga metric, naygpar taxi |
| neg level | genega even, ogenega uneven, odd, glanega multiplanar, negar level (planing device), enega bi-level, ébnega interplanar |
| nég space | néga spatial, onég void, glanéga spacious, ónanég interval, ónanégser to space out, tomnég Lebensraum, cf. néb container |
| nib row, rank | nibser to arrange, nibcer to adapt, niber to array, oniber to disarray, óniber to topple, nibémer to dispose, ábniba highranking |
| nip order, turn, sequence, queue | nipber to order, onip disorder, onipber to mess up, nipba ordered, orderly, neat, sequential, onipba out of sequence, out of order, messed up, Heta nip ce? Whose turn is it?, jonipa next, janipa prior, niper to queue up, to line up, to get in order, zínipber to sort, vánip proper order, order |
| nud column | nuda columnar, nibnubi coordinates, nibnubcan grid, matrix, row-column format |
| nod point | zenod mid-point, center, zénod hub, intersection, ábnod highpoint, climax, apex, óbnod low-point, nadir, ijnod starting point, ujnod endpoint, butt, terminal, drenod period, dot |
| ned surface, plane, face | neda superficial, planar, záned stretch nedet facet, glaneda multifaceted |
| nid line (cf. nif wire) | nida linear, teacnid light of sight, nidber to align, obnider to underline, nidar ruler, elánid rail, jopnid track, kunid edge, border, rim, zyunid circumference, boundary, zyeiznid perpendicular (line), zyeiznida perpendicular, mamnid horizon, yaztanida horizontal, yabtanida vertical, kinid diagonal, zeynid transversal, kinida diagonal, zenid midline, |


|  | nidcer to line up, queue up, form a line, iznid straight line, geizana nid parallel line, ébnida interlinear, drenid line of text, zanid front-line, frontier, forward line, óznid limit, íbnid limit nìd ray, radius, nìdcer to radiate, marnìd sun ray, nìda radial niid trait |
| :---: | :---: |
| néd volume (cf. néb container) | nédàa voluminous, zúnéd sphere gekumnéd cube |
| cag number | caga numeric, cager to number, cág count, cáger to count, cáag calculation, cágar computer, cáagar calculator, cágud accountant, cágán account |
| nan time (frequency) | anan one time enan twice glanan often, glanana frequent glonan seldom henan how often? |

## Geometry

| kín weight |  |
| :--- | :--- |
| azan strength |  |
| igan velocity |  |
| íban distance |  |
| izan direction |  |
| ágan length |  |
| záan width |  |
| óban depth |  |
| ában height |  |
| zúan girth |  |
| bar pressure |  |
| kítan gravity |  |
| gáan thickness |  |
| ígan solidity |  |
| zeban density |  |
| maan |  |
| brightness |  |
| nangan |  |
| frequency | egan repetition, nan time(s) |
| jag age |  |
| voz color |  |
| gan quantity |  |
| fin quality |  |


| cág number | meaning count; number is cag |
| :---: | :---: |
| nog degree |  |
| nébgan volume | nég volume, meaning a solid |
| végan ratio |  |
| nas cost |  |
| naz value |  |
| zènidgan diameter | as a line: zènid |
| zúnidgan circumference |  |
| ènzègan radius | as a line: nìd |
| nag dimension |  |
| neg level |  |
| nib row |  |
| nip order | also: turn, sequence |
| nub column | (on a grid) |
| can shape |  |
| néd volume, solid | zúnéd sphere, gekumnéd cube, zúfnéd cylinder, defábnéd cone, aginéd cone |
| nid line | kunid border, zúnid contour, zénid transverse, zéiznid perpendicular, kinid diagonal, áztanid horizontal, ábtanid vertical, zenid midline, iznid vector, uznid curve, curved line, geizana nid parallel |
| gun angle | gegun right angle, gagun obtuse angle, gogun sharp angle, igun triangle, ugegun rectangle, uogegun rhomboid |
| nod point | zenod midpoint, zúnod turning point, zénod intersection |
| kum side | ágkum hypotenuse, abkum topside, obkum bottom, gekuma equilateral, ekuma bilateral, glakuma multilateral, ugekum square |
| ned plane | eneda biplane, glaneda multifaceted |
| zúc circle | èzúc semi-circle, zûc oval |
| zúfuf cylinder |  |
| gin tip, point | aginéd cone |

## Instruments and Machines (-ar, -ir, -ur)

The -ar suffix is used for instruments and devices in general. The -ir suffix is used for machines, while -ur is used for motors and engines. The distinction is only made when necessary.

## Vehicles (par)

| zíp travel | zíper to travel, zíptam hotel, zípem travel destination, zìpud <br> traveler, ifzíp tourism, ifzípud tourist, zípdren passport, zípmep <br> itinerary, zípém suitcase or zípa ném suitcase |
| :--- | :--- |
|  | para vehicular, parupip traffic, pareper to park, parepam <br> garage, parepem parking lot <br> nunpar truck |
| éspar truck <br> nunparet van <br> makabnifpar tram(electrified overhead wire car) <br> binifpar trolley, cable car (pulled cable car) <br> elánidpar train (iron rail car), elánidpar epam railway station <br> nidpar train <br> ágpar train |  |
| par vehicle |  |
| gorsémpar train (compartmented vehicle) |  |
| dompar bus (city vehicle), dompar epam bus station, bus stop |  |
| dompar epem |  |
| tánpar bus (people vehicle) |  |
| zípar bus (roundabout vehicle) |  |
| ébdompar motorcoachintercity behicle) |  |
| paret cart |  |
| wheelbarrow |  |
| curezúcpar motorcycle, parizber to drive/pilot, parizbud |  |
| driver/pilot, parizbuda vegdren driver's license, pilot's license |  |
| jobnucpar taxi, cab |  |,

## Tools

| c- object | car tool carán toolset tuábcar handtool éscar work tool carném toolbox egcarser to retool, repair egcarsud repair technician |
| :---: | :---: |
| c- object | càr instrument càrán instrumentation càréna instrumental càrcer to be instrumental |
| c- object | cur device curán equipment curbàser to equip dopcurán ordnance |
| c- object | cúr apparatus, system cúra systemic cúraser to systematize |
| c- object | cir machine cirán machinery cira mechanical cirud mechanic ciraser to mechanize |
| c- object | cír motor, engine círàa motorized círàser to motorize |
| c- object | cìr mecanism |
| p- 90 | par vehicle, car <br> para vehicular <br> parupip traffic <br> parepam garage <br> parepem parking lot <br> círpar motor vehicle <br> círezúcpar motorcycle (also: círezúc <br> motorbike) |
| goper to cut | gopar knife goparer to stab |
| ígfagoper to saw | ígfagopar saw |
| gofer to shear | gofar scissors, shears |
| grorber to shave | grorbar shaver, razor |
| úzbaler to pinch | úzbalar pliers úzbalaret tweezers |

Word Families

| zúfod screw | zúfodar screwdriver |
| :---: | :---: |
| apéner to hit | apénar hammer apénarer to hammer |
| mamil rain | ovmamilar umbrella |
| póner to fall | ovpónar parachute |
| mar sun | ovmarar parasol |
| biner to pull | binar handle |
| mobser to dig | mobsar excavator |
| uklan hollow | uklar shovel |
| zéc hole | zécbar bore |
| nofázer to iron | nofázar iron nofázenfaof ironing board |
| aman heat | amsar heater |
| oman cold | omsar refrigerator |
| óm ice | ómsar freezer |
| ánifer to sew | ánifur sewing machine |
| nif thread | nifar needle nivar pin |
| mék powder | mékar mill, grinder |
| taéb hair | taébar comb taébarer to comb |
| vícer to clean | vícar brush, sweep <br> 'vícarer to brush, sweep |
| albaner to wipe | albanar mop albanarer to mop |
| álber to lift | álbur elevator |
| teler to eat | telar fork |
| tiler to drink | tilar spoon |
| iber to receive | ibar receiver |
| uber to send | ubar transmitter |
| íjer to open | íjar key, opener |
| azújer to lock | azújar lock |
| céb container | cébíjar opener (for cans, bottles, etc.) |
| dopa military | dopar weapon doapar gun <br> dopur rifle igdopur machine-gun dopir canon doapir bazooka |


| mageler to cook | magelar cooker |
| :--- | :--- |
| magiler to boil | magilar boiler |
| magler to roast | maglar roaster, oven |
| abmagler to grill | telébar platter |
| tel food + éber to hold | telarán milbar dishwasher |
| telarán dishes | ilújar faucet |
| il liquid + újer to close | mipugsar dam |
| mip river + ugser to brake | miluksar toilet |
| mil water + ukser to flush | drar pen <br> drear pencil |
| drer to write | ugsar brake |
| uga slow | úgcrar spring |
| úgcra elastic | ekar toy |
| eker to play | cágar calculator <br> cágir computer |
| cág count | mancinar camera |
| mancin photo | panmancinar movie camera |
| panmancin movie | ceusdrar recorder |
| ceus sound | ceusibar radio |
| ceus sound + iber to receive | cinibar television |
| cin image + iber to receive | teuzibar telephone |
| teuz voice + iber to receive | makcéfet teuzibar cellphone |
| mak electricity + cyefet cell | manifa teuzibar wireless phone |
| nif wire | paneá teuzibar mobile phone |
| pan motion | ébtunkálsar modem |
| tuúb finger + drer write | tun datum + káls |
| conversion |  |

## Animals (pot)

All animal terms contain the notions of mobile (p) and organism (t).

## Summary

| pot | animal (in <br> general) |
| :--- | :--- |
| pót | wild beast |
| pat | bird |


| pet | animal (land) |
| :--- | :--- |
| pét | reptile |
| pelt | insect |
| pit | fish |

## Domesticated animals (pet)

| male | female | child | home | noise | other |
| :---: | :---: | :---: | :---: | :---: | :---: |
| pot animal | pòt female animal | potob baby animal | potmet zoo | poder to make an animal noise | potun zoology potuna zoological potmet zoo potuj hunt, potujud hunter, potujer tohunt potaéb mane poteub muzzle poteib snout potub paw potuúb claw tiúb tail teúb horn tampot pet, poténa animalistic, potán animalia, potan animality |
| apet horse | apèt <br> mare | apetob <br> foal | apetam stable | apeder to neigh | apeta equine apetapen equitation apetigpek horse race aopet gelding |
| epet bull | epèt <br> cow | epetob calf | epetam <br> bull pen | epeder to snort, epèder to moo | epeta bovine eapet buffalo eopel beef |
| ipet ass | $\begin{aligned} & \text { ipèt she- } \\ & \text { ass } \end{aligned}$ | ipetob donkey |  | ipeder to bray, hehaw | iapet mule |
| upet ram | upèt ewe | upetob <br> lamb |  | upeder to <br> bleat | uopet sheep, uopetbelud shepherd utaef wool íopel mutton |
| ópet goat | ópèt <br> nanny- <br> goat | ópetob <br> kid |  |  | ópetbelud goatherder ótaéf goat's hair |


| ápet hog | ápèt <br> sow | ápetob piglet | ápetam pigpen | ápeder to squeal | ápeta porcine ápetôafud 'pig's foot ápel pork ápetól ham ápetaol sausage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| épet $d o g$ | épèt <br> bitch | épetob pup | épetam doghouse | épeder to bark | épeta canine, êpetob puppy |
| ípet cat | ípèt shecat | ípetob <br> kitten | ípetam cathouse | ípeder to meow, îpeder to purr | ípeta feline, ípetobán litter |
| úpet rabbit | úpèt doe rabbit | ípetob baby rabbit | úpetam rabbit cage |  | úpetôafud rabbit's foot úlpet hare |
| tapet monkey | tapèt female monkey |  |  | tapeder to make monkey noises | taapet chimpanzee, tapetag ape |
| gapet elephant |  | gapetob elephant cub |  |  | gapeit hippopotamus |
| gepet <br> rhinoceros |  |  |  |  |  |
| vapet stag, hart | vapèt doe, hind | vapetob <br> fawn |  |  |  |
| vepet deer |  |  |  |  |  |
| vipet roebuck |  |  |  |  |  |
| vupet chamois |  |  |  |  |  |
| vópet llama |  |  |  |  |  |
| vápet antilope |  |  |  |  |  |
| vépet gazelle |  |  |  |  |  |
| vípet elk, moose |  |  |  |  |  |
| fapet camel | fapèt shecamel |  |  |  |  |
| fepet dromadery |  |  |  |  |  |

Word Families

| kapet <br> squirrel |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| kepet <br> polecat |  |  |  |  |  |
| kipet <br> badger |  |  |  |  |  |
| kupet otter |  |  |  |  |  |
| kópet <br> weasel, <br> stone <br> marten |  |  |  |  |  |
| kápet <br> beaver |  |  |  |  |  |
| képet <br> ermine, <br> stoat |  |  |  |  |  |
| sapet <br> hedgehog |  |  |  |  |  |
| sepet <br> porcupine |  |  |  |  |  |
| sipet mole |  |  |  |  | zapeit turtle <br> zataób turtle shell |
| zapet <br> tortoise |  |  |  |  |  |
| klapet rat |  | klapetob <br> baby rat | klapetam <br> rat's nest |  | klapeder <br> to squeek |
| klepetar mouse <br> (computer device) |  |  |  |  |  |
| klepet <br> mouse <br> mouse |  |  |  |  |  |

## Wild animals ( pyot )

| male | female | child | home | noise | other |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ápót boar |  |  |  |  |  |
| rapót lion | rapôt <br> lioness | rapótob lion <br> cub | rapótam <br> lion's den | rapóder to roar |  |
| repót tiger | repôt <br> tigress | repótob <br> tiger cub | repótam <br> tiger's den | repóder to <br> growl |  |
| ripót <br> leopard | ripôt <br> female <br> leopard | ripótob <br> leopard dub |  |  | riapót <br> panther <br> riepót <br> jaguar <br> riipót <br> puma <br> riupót |


|  |  |  |  |  | lynx |
| :---: | :---: | :---: | :---: | :---: | :---: |
| rupót wolf | rupôt shewolf | rupótob wolf cub | rupótam wolf's lair | rupóder to howl | rupóta <br> lupine |
| rópót fox | rópôt vixen | rópótob fox cub | rópótam <br> foxhole |  |  |
| gápót <br> hyena | gâpót shehyena | gápótob baby byena |  | gápóder to laugh like a hyena | gáapót <br> jackal |
| tapót orangutang |  |  |  |  |  |
| tepót bear |  | tepótob bear cub | tepótam bear cave | tepóder to growl (like a bear) |  |

## Reptiles (pyet) and amphibians (pyeit)

| male | female | child | home | noise | other |
| :--- | :--- | :--- | :--- | :--- | :--- |
| pyet <br> reptile |  |  |  |  | pyeta reptilian |
| gapyet <br> crocodile |  |  |  |  | gaypyet alligator |
| gepyet <br> cayman |  |  |  |  |  |
| kepyet <br> lizard |  |  |  | lopyeder <br> to hiss | lopyeper to slither |
| lopyet <br> snake |  |  |  |  |  |
| lapyet boa |  |  |  |  |  |
| lepyet <br> cobra |  |  |  |  |  |
| lipyet <br> viper |  |  | lipyetam <br> viper's nest |  |  |
| sipet mole |  |  |  |  |  |
| apyeat bat |  |  | apyeatam <br> bat's cave |  |  |
| epyeat <br> vampire |  |  |  |  |  |
| fapyet <br> grass <br> snake |  |  |  |  |  |
| fepyet <br> slug |  |  |  |  |  |

Word Families

| fipyet <br> leech |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| vapyet <br> snail |  |  |  |  | vapyel escargot <br> vapyetigyena sluggish, at <br> a snail's pace, vapyeper to <br> move at a snail's pace |
| apyeit <br> toad |  |  | apyeitam <br> toadstool |  |  |
| epyeit <br> frog |  |  |  |  | epyeiper to leapfrog |
| ipyeit tree <br> frog |  |  |  |  |  |

## Insects (pelt)

| male | female | child | home | noise | other |
| :--- | :--- | :--- | :--- | :--- | :--- |
| pelt <br> insect |  |  |  |  | peltán swarm, ovpeltil <br> insecticide, peltujsil <br> insecticide, pelteleat <br> insectivore, pelper to crawl <br> around |
| kopelt <br> vermine |  |  |  |  |  |
| kapelt <br> louse |  |  |  |  | kapeltika lousy |
| kepelt <br> flea |  |  |  |  | ovkepeltof flea collar, <br> kepeltika flea-bitten |
| kipelt <br> bug |  |  |  |  | ovkipeltil bug spray |
| apelat <br> bee |  |  | apelatam <br> beehive | apelader <br> to buzz | apelatil honey, apelatél <br> wax, apelatán swarm of <br> bees |
| epelat <br> wasp |  |  | epelatam <br> wasp's nest |  |  |
| ipelat <br> horsefly |  |  |  |  | ovupelatar fly-swatter |
| upelat fly |  |  |  |  | ovópelanef mosquito net |
| opelat <br> mosquito |  |  |  |  |  |
| lapelat <br> maybug |  |  |  |  |  |
| lepelat <br> beetle |  |  |  |  |  |


| tapelat <br> cicada |  |  |  | tapelader <br> to chirp |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| gapelat <br> butterfly |  |  |  |  | ápelaper to flit about |
| fapelt ant |  |  | fapeltam <br> anthill |  | fapeltán swarm of ants |
| peét <br> worm |  |  |  |  | peétéc wormhole |
| apeát <br> silkworm |  |  |  |  |  |

## Birds (pat)

| male | female | child | home | noise | other |
| :---: | :---: | :---: | :---: | :---: | :---: |
| pat bird |  |  | patam <br> bird's <br> nest | pader to chirp | patijob egg, patijser to hatch, patper to fly, patpier to fly off, pateub beak, patub wing, pataéb feather, patulob claw, patésun aviculture, patém farmyard, patán poultry |
| apat rooster, cock | apàt <br> hen | apatob chick | apatam chicken coop | apader to crow | apàtog chicken |
| epat duck, drake | epàt hen | epatob duckling |  | epader to quack | epatob duckling |
| ipat turkey | ipàt <br> turkey hen |  |  | ipader to gobble |  |
| upat goose |  |  |  |  | upatijob goose-egg |
| ópat guinea-fowl |  |  |  |  |  |
| ápat pigeon | ápàt <br> dove |  | ápatam pigeon house | ápader to coo |  |
| rapat eagle |  | rapatob eaglet |  |  |  |
| repat <br> vulture |  |  |  |  |  |
| ripat kite |  |  |  |  |  |
| rupat <br> buzzard |  |  |  |  |  |
| rópat hawk |  |  |  |  |  |

Word Families
$\left.\begin{array}{|l|l|l|l|l|}\hline \begin{array}{l}\text { rápat } \\ \text { falcon }\end{array} & & & & \\ \hline \text { fapat raven } & & & & \\ \hline \text { fepat } \text { crow } & & & & \\ \hline \begin{array}{l}\text { fipat' } \\ \text { magpie }\end{array} & & & & \\ \hline \begin{array}{l}\text { gapat } \\ \text { ostrich }\end{array} & & & & \\ \hline \begin{array}{l}\text { gepat } \\ \text { peacock }\end{array} & & & & \\ \hline \text { dapat stork } & & & & \\ \hline \begin{array}{l}\text { dapait } \\ \text { heron }\end{array} & & & & \\ \hline \begin{array}{l}\text { depat } \\ \text { marabou }\end{array} & & & & \\ \hline \begin{array}{l}\text { depait } \\ \text { crane }\end{array} & & & & \\ \hline \begin{array}{l}\text { zapat } \\ \text { swallow }\end{array} & & & & \\ \hline \begin{array}{l}\text { zepat } \\ \text { martinet }\end{array} & & & & \\ \hline \begin{array}{l}\text { tapat } \\ \text { parrot }\end{array} & & & & \begin{array}{l}\text { tapader } \\ \text { to parrot }\end{array} \\ \hline \begin{array}{l}\text { tepat } \\ \text { budgie }\end{array} & & & & \\ \hline \begin{array}{l}\text { vapat } \\ \text { nightingale }\end{array} & & & & \\ \hline \begin{array}{l}\text { vepat } \\ \text { yellow } \\ \text { canary }\end{array} & & & & \\ \hline \begin{array}{l}\text { 'vipat } \\ \text { canary }\end{array} & & & & \\ \hline \begin{array}{l}\text { vupat } \\ \text { chaffinch }\end{array} & & & & \\ \hline \text { vápat robin } & & & & \\ \hline \begin{array}{l}\text { fapat } \\ \text { thrush }\end{array} & & & & \\ \hline \begin{array}{l}\text { fepat } \\ \text { warbler }\end{array} & & & & \\ \hline \begin{array}{llll|}\text { fipat } \\ \text { sparrow }\end{array} & & & & \\ \hline \text { to warble, } \\ \text { yodel }\end{array}\right)$

| sapat <br> partridge |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| sepat quail |  |  |  |  |  |
| sipat <br> woodcock |  |  |  |  |  |
| supat lark |  |  |  |  |  |
| sópat <br> pheasant |  |  |  |  |  |
| sápat <br> grouse |  |  |  |  |  |
| lapait swan |  |  |  |  |  |
| apait <br> cormorant |  |  |  |  |  |
| epait gull |  |  |  |  |  |
| gapait <br> penguin |  |  |  |  |  |

## Fish (pit)

| pit fish | pitán school of fish, pitub fin, pitaéb scale, pitésun <br> pisciculture, pitun ichthyology, pitut ichthyologist, pitpin <br> fishing, pitpinud fisherman |
| :--- | :--- |
| rapit shark |  |
| repit dolphin |  |
| ripit sperm <br> whale |  |
| rupit walrus |  |
| rópit <br> porpoise |  |
| rápit |  |
| swordfish |  |
| répit tuna |  |
| rípit <br> sturgeon |  |
| rúpit cod |  |
| lapit ray |  |
| lepit turbot |  |
| lipit salmon |  |
| lupit sole |  |
| capit herring |  |
| cepit barbel |  |

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Word Families

| cipit <br> anchovie |  |
| :--- | :--- |
| cupit gilt- <br> head |  |
| apit sardine |  |
| epit perch |  |
| ipit pike |  |
| upit carp |  |
| ópit tench |  |
| ápit gudgeon |  |
| épit <br> stickleback |  |
| ípit marline |  |
| gapit whale |  |
| vapit eel |  |
| apiet seal |  |
| epiet sea-lion |  |

## Crustaceans (piit)

| piit shellfish |  |
| :--- | :--- |
| apiit lobster |  |
| epiit crayfish |  |
| ipiit prawn |  |
| upiit |  |
| crawfish |  |
| ópiit prawn |  |
| ápiit shrimp | ápiitpin shrimping |
| lapiit crab | lapiitpin crabbing |
| apiét oyster | piétaób shell, piéz pearl, piètésun ostreiculture |
| epiét mussle |  |
| ipiét clam | ipiétpinud clamdigger |

## Vegetation (fob)

## Summary

| fob | Vegetatio <br> $n$ |
| :--- | :--- |
| fab | tree |


| fáb | fruit |
| :---: | :--- |
| vob | plant |
| vol | legume |
| voc | flower |
| voz | color |
| vab | grass |

## Trees and fruits

| fob vegetation | fobtun botany, fobtut botanist, fobéstun agronomy, fobésun agriculture, fobésuna agricultural, fobésud farmer, fobésem farm |
| :---: | :---: |
| fab tree | fàb shrub, fàbet bush, fàbán shrubery, fabán forest, fabánésun forestry, fabánésud forester, fabánàca forested, fabánet woods, fabánog grove, copse, fàbánet scrub, fàbán thicket, fabmed orchard |
| fib trunk |  |
| fub branch, limb | fubet $t w i g$ |
| faéb leaf | faébán foliage, faébet bud |
| fáb fruit | fábéna fruity, fábél jam, fâbél jelly, marmalade, fábóm sherbet, fábtul fruit cocktail, fábzeb pit (of fruit), fâob peel |
| fób root | radicule, fóbober to deracinate |
| faob wood | faoba wooden |
| faab sap |  |
| faób bark |  |
| afab apple tree | afáb apple, afabet boxer tree |
| efab pear tree | efáb pear, efabet spindle-tree |
| ifab cherry tree | ifáb cherry, ifabet privet |
| ufab prune tree | ufáb prune |
| ófab apricot tree | ófáb apricot |
| áfab peach tree | áfáb peach |
| éfab quince tree | éfáb quince |
| ífab walnut tree | ífáb walnut |
| úfab hazelnut tree | úfáb hazelnut |

Word Families

| alofàb <br> blackberry vine | alofáb blackberry |
| :---: | :---: |
| lafab orange tree | lafáb orange |
| lefab mandarin tree | lefáb mandarin |
| lifab lemon tree | lifáb lemon |
| lufab grapefruit tree | lufáb grapefruit |
| fefab date tree | fefáb date |
| fifab banana tree | fifáb banana |
| fufab cononut tree | fufáb coconut |
| fófab pomegranite tree | fófáb pomegranite |
| fífab fig tree | fífáb fig |
| vafàb grape vine | vafáb grape, vafàbem vineyard, vafábil grape juice, vafil wine, vafilsam winery, ígvafil vinaiger, vafilifud oinophile |
| cafàb tea plant | cafaéb tea leaf, tea, cafil tea (drink), cafilam tea house |
| cefàb coffee plant | cefáb coffee bean, coffee, cefil coffee (drink), cefilam cafe |
| cifàb <br> blackcurrant bush | cifáb blackcurrant |
| cufàb raspberry bush | cufáb raspberry |
| cófàb currant bush | cófáb currant |
| sifàb pepper plant | sifáb pepper, sifáber to pepper, sifábika peppery |
| kafab olive tree | kafáb olive, kafábél olive oil |
| rafab oak tree | rafáb acorn |
| refab beech tree | refaob beechwood |
| rifab chestnut tree | rifáb chestnut |
| rufab plane tree |  |


| rófab poplar tree | 'rófaob poplar wood |
| :---: | :---: |
| ráfab birch tree | ráfaob birchwood |
| réfab locust tree |  |
| rífab chestnut tree | fífáb chestnut |
| rúfab willow tree | rúafab weeping willow |
| ralafab lime tree, linden | ralafáb lime |
| ralefab maple tree | ralefaob maplewood |
| ralofab elm tree | ralofaob elmwood |
| dofab evergreen tree | dofáb cone |
| dafab fir tree |  |
| defab pine tree | defáb pine cone, defaéb pine needle, defaob pine (wood) |
| dufab cypress tree | dufaob cypress wood |

Plants, vegetables, grains, and legumes

| vob plant | vober to plant, vobem plantation, vobud planter, vobier to <br> harvest, vobijob harvest (time), vobésam farm, vobyesud <br> farmer |
| :--- | :--- |
| vab grass | vabem grassland, prairie, vabema rural, vabgorcer to mow, <br> vabemet lawn, vabán grass (lawn), vabij germ, vabóg moss, <br> vabib crop, harvest, vabiber to reap, vabam barn |
| veb ear, tuft, <br> spike |  |
| vib stem |  |
| vaob hay |  |
| vub blade, <br> sprig, twig |  |
| váb seed | vábet seedling, váber to seed |
| vâb grain, <br> bean |  |
| vulob thorn, <br> spine | vulobika thorny |
| ovob cereal |  |

Word Families

| avob wheat | avol bread, avolek flour |
| :---: | :---: |
| evob rye |  |
| ivob barley |  |
| uvob buckwheat |  |
| óvob oat | óvolek oatmeal |
| ávob hop | ávil beer |
| évob rapeseed, colza |  |
| ívob rice |  |
| gavob sunflower | gaváb sunflower seed |
| gevob corn, maize | geváb kernel, gevobek cornmeal |
| givob tobacco | givoc cigar, givocet cigarette, givov tobacco smoke |
| favob cotton | faváb cottonseed, favof cotton fabric |
| fevob flax |  |
| fivob hemp | fuvov marijuana, pot |
| fuvob jute |  |
| zavob <br> strawberry <br> bush | zaváb strawberry |
| cavob fern |  |
| cevob thistle |  |
| civob nettle |  |
| savob <br> mushroom |  |
| zevob basil |  |
| zivob thyme |  |
| zuvob rosemary |  |
| ováb legume, bean |  |
| aváb green bean |  |
| eváb lentil |  |
| iváb pea |  |
| uváb broad bean |  |
| óváb lima bean |  |


| vol vegetable | volinud vegetarian, volem vegetable garden, volcer to <br> vegetate |
| :--- | :--- |
| lovol tuber |  |
| lavol potato |  |
| levol beet | level sugar, levela sweet |
| livol radish |  |
| luvol carrot |  |
| lávol artichoke |  |
| lóvol turnip |  |
| favol leek |  |
| fevol onion |  |
| fivol shallot |  |
| fuvol garlic |  |
| pavol cabbage |  |
| pevol |  |
| cauliflower |  |
| bavol tomato | bavil tomato juice |
| bevol eggplant |  |
| bivol squash |  |
| buvol |  |
| cucumber | ígza buvol pickle |
| bávol |  |
| artichoke |  |
| bóvol gherkin |  |
| vavol lettuce |  |
| vevol spinach |  |
| vivol sorrel |  |
| vuvol |  |
| dandelion |  |
| vávol <br> watercress |  |
| vóvol chicory |  |
| gavol pumpkin |  |
| gevol melor |  |
| watermelon |  |

## Flowers and colors

| voc flower | voca floral, vocer to flower, vocen flowering, vocud florist, <br> vocán bouquet, vocaéb petal, vocém flowerbed, vocésun <br> horticulture |
| :--- | :--- |
| avoc lily | avoza white |
| evoc narcissus | evoza yellow |
| ivoc poppy | ivoza red |
| uvoc rose | uvoza pink |
| óvoc cornflower | óvoza blue |
| ávoc hydrangea | ávoza mauve |
| évoc lilac | évoza lilac |
| ívoc violet | ívoza violet |
| úvoc carnation |  |
| lovoc daisy |  |
| lavoc lily of the <br> valley |  |
| levoc jonquil |  |
| livoc geranium |  |
| luvoc forget-me- <br> not |  |
| lávoc tulip |  |
| lévoc dahlia |  |
| lóvoc hyacinthe |  |
| elavoc iris |  |
| elevoc primrose |  |
| elivoc <br> chrysanthemum |  |

## Colors (voz)

Change -oza to -òza to get -ish as in whitish (avòza).
Change -oza to -óza to get dark ... as in dark red (ivóza).

| voz color | vooz tint, hue |
| :--- | :--- |
| avoza white | from avoc lily |
| evoza yellow | from evoc narcissus |
| ivoza red | from ivoc poppy |
| uvoza pink | from uvoc rose |
| óvoza blue | from óvoc cornflower |


| ávoza mauve | from ávoc hydrangea |
| :--- | :--- |
| évoza lilac | from óvoca lilac |
| ívoza violet, <br> purple | from ívoc violet |
| vaza green | from vab grass |
| moza black | from mon darkness or moj <br> night |
| maza sky blue | from mam sky or maj day |
| èmoza gray | from è half + moza black |
| meza khaki | from mel soil |
| lafáza orange | from lafáb orange |
| rifáza maroon | from rifáb water chestnut |
| rífyza brown | from rífáb chestnut |
| vápeza beige | from vápet antilope |

## Some Cross-thematic Analogies in Vocabulary



Word Families


## 5 GRamMAR

live version • discussion • edit chapter • comment • report an error

## Spelling

The author of Unilingua, Agapoff, uses a double quote to signal capitalization and thus dispenses with all majuscules. In this Mirad textbook, however, majuscules (upper case graphemes) are used and capitalization adheres to the American English model.

In this book, the mostly Cyrillic single-grapheme characters used by Agapoff for yodified vowels are replaced with the following system:

Pre-yodified vowels, that is, those preceded by a y-glide sound, take an acute accent:

| plain vowel | pre-yodified vowel |
| :--- | :--- |
| $\mathbf{a}$ | á $(y a)$ |
| e | é $(y e)$ |
| i | í $(y i)$ |
| o | ó $(y o)$ |
| u | ú $(y u)$ |

Post-yodified vowels, that is, those followed by a y-glide sound, take a grave accent:

| plain vowel | post-yodified vowel |
| :--- | :--- |
| a | à $(a y)$ |
| $\mathbf{e}$ | è (ey) |
| $\mathbf{i}$ | ì (iy) |
| o | ò (oy) |
| u | ù (uy) |

Circum-yodified vowels, that is those that are both preceded and followed by a yglide sound, take a circumflex accent:

| plain vowel | circum-yodified vowel |
| :--- | :--- |
| $\mathbf{a}$ | $\hat{a}$ (yay) |
| $\mathbf{e}$ | $\hat{\mathbf{e}}$ (yey) |
| $\mathbf{i}$ | $\hat{\mathbf{1}}$ (yiy) |
| $\mathbf{o}$ | $\hat{\mathbf{o}}$ (yoy) |
| $\mathbf{u}$ | $\hat{\mathbf{u}}$ (yuy) |

A pre-yodified vowel always begins a new vowel syllabic nucleus, whereas a postyodified vowel ends a vowel syllabic nucleus.

Upper-case vowels take the yodifying accents just as the lower-case values do (thus Á, È, Ô, etc.

## Punctuation

The punctuation marks in Mirad are the same as in English. For example, a question mark (?) is used at the end of a sentence or sentence fragement to signal an interrogation.

## Nouns

## Structure

All nouns in their base form end in a consonant. This distinguishes them from adjectives and conjugated verbs, which end in a vowel.

## Pluralization

Nouns are made plural by adding the suffix -i.

| singular | plural |
| :--- | :--- |
| tob man | tobi men |
| dat friend | dati friends |
| car <br> instrument | cari <br> instruments |

## Femininization

Although nouns do not have inherent gender, the feminine or female-related counterpart of a noun can be formed by post-yodifying the ordinal (inner) vowel, that is, by adding the grave accent ` to the vowel. If the vowel is already preyodified (with an acute accent), then the the acute accent is replaced with a circumflex ( $\wedge$ ) (circum-yodification) to show that it is both pre-yodified and postyodified.

| male-related | female-related |
| :--- | :--- |
| tad father | tàd mother |
| tob man | tòb woman |
| tóáv sock | tóâv stocking |
| epet bull | epèt cow |

## Case Tagging

Nouns can take the following case endings, which are shortcuts for prepositional phrases:

| case <br> ending | category | base | cased form |
| :--- | :--- | :--- | :--- |\(\left|\begin{array}{lll|}\hline -a \& \begin{array}{l}genetive/possessive/relative/ <br>

ablative [origin]\end{array} \& tob man <br>
\hline toba of the man, human <br>
(adj.), man's, from the man\end{array}\right|\)

Examples of the genetive/possessive case:
Meira zem ce gra ama. = The earth's core is very hot.
Ata ted tome íbà. = My father lives far away.
Ed et te dad ifana? = Do you know the language of love?
Examples of the locative/dative case:
Pu tamu! = Go home!

At teaco et uda moju. = I'll see you this evening. ( $=$ at this evening)
Buu dén atu! = Give the book to me!
Ev ud ce atu? = Is this for me?
Examples of the comitive case:
Upu atà! = Come with me!
Ud ca ekpan tija tujà. = This was a life-and-death struggle.
At ubeé uda ébdren ifanà. $=I$ am sending you this letter with love.
Examples of the instrumental case:
Et vege nacikcer anà esè. $=$ You can get rich only through work.
It aksa koenè ván. $=$ He succeded by hiding the truth.
Ágpar pa Parisè. $=$ The train went through Paris.
Examples of the privative case:
Et vò vege akser nacò. = You cannot succeed without money.
Tij ifanò vò naze ser. = Life without love is not worth living.
Od et su atò? $=$ What would you do without me .

## Pronouns

## Forms

All animate pronouns (those referring to people) end in $\mathbf{t}$ in their base form, while all inanimate pronouns (those referring to things) end in $\mathbf{d}$ in their base form. Pronouns can be singular or plural. All plural pronouns take the plural suffix $\mathbf{i}$.

| animate | animate |
| :---: | :---: |
| singular | plural |
| ot? who?, whom? | oti? who all? |
| at $I$, me | ati we, us |
| et you | eti* you (pl.), you all |
| it he, him, that person | iti they, these persons |
| it she, her | ìti they (fem.) |
| ut this person, he | uti those persons, they |
| ót nobody, no one | óti none |
| át everyone, everybody, each person | áti all |
| ót another, someone else | éti others |
| ít such a person | íti such people |
| ét whoever, anyone | óti any |
| út someone, somebody | úti certain people |
| oát not a single person, nobody, no one |  |
| get the same person | geti the same ones |
| oget someone else | ogeti others |
| gat another one | gati several |
| singular | plural |
| od what | odi what things |
| ad that (relative), the one | adi the things that |
| id that | idi those things |
| ud this | udi these things |
| ód nothing | ódi nothing |
| ád everything, each | ádi all things |
| ód something else, another | édi other things |
| íd such a thing | ídi such things |
| éd whatever, anything | édi any |
| úd something | údi some things, certain things |


| oád not a single thing, nothing | oádi none |
| :--- | :--- |
| ged the same thing | gedi the same things |
| oged something else | ogedi other things |
| gad another one | gadi several things |

Note: Agapoff prefers ait, eit, iit for ati, eti, and iti.

## Inflection

All pronouns can take cases, just as nouns do:

| genetive/posse ssive ("of") ablative ("from") adjectival | dative ("to/in/on/at") locative | comitive ("with") | instrumental ("by/through/via ") | privative ("without") |
| :---: | :---: | :---: | :---: | :---: |
| ata $m y$, of $m e$, from me | atu to me | atà with me | atè by me | atò without me |
| eta your, of you, from you | etu to you | età with you | etè by you | etò without you |
| ita his, of him, from him | itu to him | ità with you | itè by him | itò without him |
| ita her, of her, from her | ìu to her | ìtà with her | ìtè by her | ìtò without her |
| atia our, of us, from us | atiu to us | atià with us | atiè by us | atiò without us |
| ota whose?, of whom?, from whom? | otu to whom | otà with whom | otè by whom | otò without whom |
| áta everyone's | átu to everyone | átà with everyone | átè by everyone | átò without everyone |
| oda which, of what, from what | odu to which, at which, in which | odà with what? | odè by what?, how? | odò? without what? |
| ida that, of that, from that, those | idu to that, at that, in that | idà with that | idè by that, thus | idò' without that |
| uda this/these, of this, from this | udu to/at this, therefore | udà with this | udè by this, thus | udò without this |
| áda every, each, all | ádu to everything, in everyting | ádà with everything | ádè by everything, by all means | ádò without everything |
| óda not, not a | ódu to nothing | ódà with | ódè by nothing | ódò without |


|  |  | nothing |  | nothing |
| :--- | :--- | :--- | :--- | :--- |
| oáda not a <br> single, no | oádu in not a <br> single one, to <br> none | oádà with <br> nothing | oádè by nothing, <br> in no way | -- |
| éda any, <br> whichever | édu to <br> anything | édà with <br> whatever | édè by whatever, <br> however | édò without <br> whatever |
| úda some, a <br> certain | údu at a <br> certain thing | údà with <br> something | údè by <br> something, <br> somehow | údò without <br> something |
| geda same, the <br> same | gedu to the <br> same thing | gedà with <br> the same <br> thing | gedè by the same <br> thing | gedò without <br> the same <br> thing |
| ogeda <br> different, the <br> other, another | ogedu to <br> another thing | ogedà with <br> another <br> thing | ogedè by <br> something else | ogedò <br> without <br> another thing |

## Possessive Pronouns

Any of the above pronominal adjective forms can be substantivized by adding -c. The resulting possessive pronouns can then take the plural affix and case endings.

| singular | plural |
| :---: | :---: |
| atac mine | ataci mine |
| etac yours | etaci yours |
| itac his | itaci his |
| ìtac hers | ìtaci hers |
| atiac ours | atiaci ours |
| etiac yours | etiaci yours |
| itiac theirs | itiaci theirs |
| ìtiac theirs | ìtiaci theirs |
| utac one's | utaci one's |
| otac? whose? | otaci whose |
| átac everyone's | átaci everyone's |
| ótac nobody's | ótaci nobody's |
| odac? which one | odaci which ones |
| ódac the other one | ódaci the other ones |
| udac this one | udaci these |
| idac that one | idaci those |
| ádac each one | ádaci all of them |
| édac any one, whichever one | édaci whichever ones |

Any of the above substantival pronouns can take case endings:

| Mirad | English |
| :--- | :--- |
| ataca | of mine |
| otacà | with whose |
| átacu | to everyone's |
| udacò | without this <br> one |

Examples:

| Mirad | English |
| :--- | :--- |
| Uda tam ce atac. | That house is mine. |
| Oda déni et dédaé? | Which books have you read? |
| Ída tej aju vò teacâe. | Such a life has not been seen before. |
| Buu atu udi! | Give me those! |
| Áda tej nazace. | Every life counts. |
| Ádac nazace. | Each one counts. |
| Áta tej nazace. | Everyone's life counts. |
| Átac nazace. | Everyone's counts. |
| Áda évcunuti kode. | All lawyers lie. |
| Áti kode. | All of them lie. |
| Át kodeé. | Everyone is lying. |
| Ád ce kod. | Everything is a lie. |
| Mar ce zem áda. | The sun is the center of everything. |
| Ót ége kaer if ádu. | One can find pleasure in everything. |
| If ége uper bi éd. | Pleasure can come from anything. |
| Ud ce ga fia vél id (or: ga fia idu). | This is better than that. |
| Od ce eta dún? | What is your name? |
| At vage éd et vage. | I want what(ever) you want. |
| At vò ta ev it upo. | I didn't know whether he would come. |
| At ta ad it upo. | I knew (that) he would come. |
| Ad tej ce gúa vò vege vodé. | That life is hard cannot be denied. |
| Ev it íztejo vò twe. | Whether he will survive is unknown. |
| At vò te ev it íztejo. | I don't know if he'll survive. |
| Ad ìt sa ce ota seun. | What she did is nobody's business. |
| Atac ce ga aga vé etac. | Mine is bigger than yours. |
| Odac ce etac. | Which one is yours? |
| Édac cu fia atu. | Whichever one would be fine for me. |
| Otac ce ud? | Whose is this? |
|  |  |


| Otaci ce udi? | Whose are these? |
| :--- | :--- |
| Ev et co ata dat? | Are you going to be my friend? |
| Oádad ifca atu. | I did not like a single one. |
| Odè ìt tujswa? | How (by what) was she killed? |
| Otà et pa? | With whom did you go? |
| ...otacò ait vò vegu íztejer. | ...without whose we could not survive. |
| Odu et sa id? | Why (for what) did you do it (that)? |
| Iti údè kaa mep. | They somehow found the way. |
| Ébdren drwa atà otè? | The letter was written to me by <br> whom? |
| Ota tamu et peé? | To whose house are you going? |
| Otacu et peé? | To whose are you going? |

## Correlatives

By "correlatives" is meant a set of functional words in the languages than can be arranged in a matrix, all sharing a set of "deictic" or "specifier" prefixes. For example, the English words "which, what, where, why, when, how, who, whether, etc." can be considered part of a matrix of correlatives, because they all ask a question about topics such as "place", "time", "manner", and are therefore called "interrogative correlatives." The situation is similar in Unilingua. Note, however, that some of the correlative words in the chart below are slightly different from those invented by the original author of Unilingua.

## Deictic morphemes (specifiers)

| category | deictic morpheme |
| :--- | :--- |
| interrogative | od- which, what |
| relative | ad- the, the one <br> which |
| proximal | ud- this |
| distal | id- that |
| intensive | íd- so, such a |
| generic | úd- some, a certain |
| distributive | ád- all, every, each |
| indeterminate | éd- any, whatever |
| negative | ód- no, not any |
| identical | ged- same, selfsame |
| non-indentical | oged- different, other |

## Dimensional Classifiers

The above deictic morphemes combine with the following dimensional classifiers to form a whole matrix of functional deictic correlatives:

| category | classifier | short version |
| :--- | :--- | :--- |
| person | -t |  |
| thing | -d |  |
| place | -em | m |
| time | -job | j |
| manner/means | -̀ |  |
| quality/kind | -én |  |
| quantity | -gan |  |
| degree | -nog |  |
| frequency | -jig |  |

Matrix of Deictic Correlatives

| thing | person | adject ive | place | time | manner | kind | frequency | quantity | degree |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| od what | ot who | oda which | dmu <br> wher <br> $e$ | odju whe $n$ | odè how | odén <br> a <br> what <br> kind <br> of | odjigu how often | odganu how much | odnog u how |
| ud <br> this | ut this person | uda <br> this | dmu <br> here | udju now | udè this way | udén <br> a <br> this <br> kind <br> of | udjigu this often | udganu this much |  |
| id that | it that person, he | ida <br> that | idmu there | idju then | idè that <br> way, <br> thus | idén <br> a <br> that <br> kind <br> of | idjigu that often | idganu that much |  |
| íd <br> such <br> a <br> thing | ít such a person | ída such, such a | ídmu <br> at <br> such <br> a <br> place | ídju <br> at <br> such <br> $a$ <br> time | ídè in such a way, so |  | ídjigu so often | ídganu <br> so much | $\begin{aligned} & \text { ídnog } \\ & \mathbf{u} \text { so } \end{aligned}$ |
| úd somet hing | út someo ne | úda <br> some, <br> a certai | ú <br> dmu <br> some <br> wher | údju <br> som <br> etim <br> $e$ | údè someho w | údén <br> a <br> some <br> kind | údjigu sometimes | údganu some | údnog <br> u <br> somew <br> hat |


|  |  | $n$ | $e$ |  |  | of |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ád every thing | át <br> everyo <br> ne | áda every, each | á dmu every wher $e$ | ádju <br> ever $y$ <br> time <br> alwa ys | ádè in every way | ádén <br> a <br> ever <br> y <br> kind <br> of | ádjigu at all times | ádganu all of | ádnog <br> u <br> comple tely |
| éd <br> what ever, anyth ing | ét <br> whoeve <br> $r$, <br> anyone | éda <br> which ever, any | $\begin{aligned} & \hline \text { é } \\ & \mathbf{d m u} \\ & \text { wher } \\ & \text { ever, } \\ & \text { anyw } \\ & \text { here } \end{aligned}$ |  | édè however , in any way | $\begin{aligned} & \text { édén } \\ & \text { a } \\ & \text { what } \\ & \text { ever } \\ & \text { kind } \\ & \text { of } \end{aligned}$ | édjigu however often | édganu however much, any | édnog <br> uto <br> any <br> extent |
| ód nothi ng | ót nobody | óda no, not a | ó dmu nowh ere | ódju neve $r$ | ódè in no way | ódén <br> a no kind of | ódjigu not once | ódganu <br> not any, <br> no | ódnog <br> u not at all |
| ged the same thing | get the <br> same person, self | geda the same, the very | g edm u at the same place | gedj <br> u at the <br> sam <br> $e$ <br> time | gedè in <br> the <br> same <br> way | gedé <br> na <br> the <br> same <br> kind <br> of | gedjigu as often | gedganu <br> , ge as much | gedno gu, ge to the same degree , as |
| oged somet hing else | oget <br> someo <br> ne else | ogeda <br> the <br> other, <br> anothe <br> $r$ | oged <br> mu <br> elsew <br> here | gedj u at anot her time | ogedè elsewise | oged éna anot her kind of | ogedjigu at a different frequency | ogedgan u not as much | ogedn ogu otherw ise |

## Basic deictic adjectives / Determiners

| category | determiner | example |
| :--- | :--- | :--- |
| indefinite/unary | a $a$ | a tam a house |
| definite/relative | ada the | ada tam the house, ada tami the <br> houses |
| interrogative | oda which | oda dén which book, oda déni <br> which books |
| proximal | uda this, these | uda pat this bird, uda pati these <br> birds |
| distal | ida that, those | ida pat that bird, ida pati those <br> birds |
| negative | óda no | óda mep no road, óda mepi no <br> roads |


| totalative | áda every, all, each | áda mep every road, áda mepi all <br> roads |
| :--- | :--- | :--- |
| indeterminate | éda any, whichever | éda voz any color, éda vozi <br> whichever colors |
| intensive | ída such a, such | ída dún such a name, ída dúni <br> such names |
| partitive | úda some, a certain, <br> certain | úda tob some man, úda tobi <br> certain men |
| identical | geda same | geda dún the same name |
| non-identical | ogeda different, other | ogeda dún different name, another <br> name |
| quasi-identical | gèda similar | gèda ceus a similar sound |
| superior | ga more | ga nac vé at more money than I |
| equal | ge as much, as many | ge job vé et vage as much time as <br> you want |
| inferior | go less, fewer | go és less work |
| majorative | gla a lot, much | gla if a lot of fun |
| quasi- |  |  |
| majorative | glà $a$ goodly portion of, <br> several | glà jubi several days |
| excessive | gra too much, too many | gra tel too much food |
| maximal | gá most | gá poti most animals |
| sufficient | gé enough, quite a bit | gé job enough time |
| minorative | glo very little, very few | glo auti very few individuals |
| insufficient | gro too little, too few | gro ék too little effort |
| minimal | gó the least | gó ék the least effort |

Note: Nouns in Mirad are not normally accompanied by a definite article (the) or an indefinite article (a/an). The word tob can mean man, a man, or the man, depending on circumstances. Where further definition is required, $\mathbf{a}$, the numeric or deictic adjective one, can be used for the indefinite article, while ada, the deictic adjective the can be used for the definite article.

## Deitic pronouns

## Inanimate pronouns

| singular | plural |
| :--- | :--- |
| od? what? | odi? what (things) |
| ad the thing (that) | adi the things (that) |
| ud this | udi these |
| id that | idi those |


| ád everything | ádi all things |
| :---: | :---: |
| éd anything, whatever | édi any things |
| íd such, such a thing | ídi such things |
| ód nothing | ódi none |
| úd something | údi certain things |
| ged the same thing | gedi the same things |
| oged another, something else | ogedi other things |
| gèlac a similar thing | gèlaci similar things |
| gac more | gaci more things |
| gec as much | geci as many things |
| goc less | goci fewer things |
| glac a lot, much | glaci many things |
| glàc a goodly portion | glàci several things |
| grac too much | graci too many things |
| gác the most | gáci most things |
| géc enough, quite a bit | géci quite a few things |
| gloc very little | gloci few things |
| groc too little | groci too few things |
| góc the least | góic as few things as possible |

## Animate pronouns

| singular | plural |
| :--- | :--- |
| ot? who? | oti who (pl.) |
| at $I$ | ati we |
| et you | eti you (pl.) |
| ut this person, this one | uti these |
| it that person, that one | iti those |
| át everyone | áti all people |
| ét anyone, whoever | éti any people |
| ít such a person | íti such people |
| ót not a single person, noboby | óti none |
| út somebody | úti certain people |
| get the same person, self | geti the same people, <br> themselves |
| oget' the other person, someone <br> else | ogeti others, other people |
| it that female,she, her | iti they (f.), them |


| ùt this female, she, her | ùti they $(f$.$) , them$ |
| :--- | :--- |
| aut person, individual | auti persons, people |
| out nobody, no one | outi no people, none |
|  | ga auti more people |
|  | ge auti as many people |
|  | go auti fewer people |
|  | gla auti many people |
|  | glà auti several people |
|  | gra auti too many people |
|  | gá auti most people |
|  | gé auti quite a few people |
|  | glo auti few people |
|  | gro auti too few people |
|  | gó auti as few people as <br> possible |
|  |  |

Note: As with all pronouns and nouns, the above pronouns can appear in the genetive/ablative/possessive case (-a) or dative/locative case (u). For example: otu to whom, ota whose, áta everyone's, gla autia most people's, ata my, etu to you. The possessive adjective forms can, in turn, be substantivized by adding -c (thing): atac mine, atacu to mine, otac whose, getac the same person's, etc.

## Determiners of Place

## place

odmu? where?, whither? (also: odma? from where?, whence?) udmu here (also: udma from here, hence)
idmu there (also: idma from there, thence)
admu at/in/to the place where (relative)
ódmu nowhere
ádmu everywhere
édmu anywhere, whereever
ídmu at/in/to such a place

## ogedmu elsewhere (ogedem alibi)

údmu somewhere
gedmu $a t / \mathrm{in} /$ to the same place (also: gedma from the same place)
gèdmu at/in/to a similar place (also: gèdma from a similar place)

## Determiners of Time

| time |
| :--- |
| odju? when? (also: odja whence?, ji odjob since when?, etc.) |
| udju now (also: udja hence) |
| idju then (also: idja thence) |
| adju when, at the time when (relative) |
| ódju never |
| ádju each time, everytime, always, ever |
| édju anytime, whenever |
| ídju at/in/to such a time |
| údju sometime |
| gedju at the same time |
| ogedju at another time |

## Determiners of Quality

| kind |
| :--- |
| odéna? what kind of? |
| udéna this kind of |
| idéna that kind of |
| adéna the/what kind of (relative) |
| ódéna no kind of |
| ádéna every kind of |
| édéna any/whatever kind of |
| ídéna such |
| údéna some kind of |
| gedéna the same kind of |
| gèdéna $a$ similar kind of |
| ogedéna another kind of |

## Determiners of Degree

## degree

odnogu? how (...big, ...little, etc.)?, to what extent?
udnogu this, to this degree
idnogu that, to that extent
adnogu how, to what degree, to the extent (that...) (relative)
ódnogu not at all, to no extent
ádnogu completely, to the full extent
édnogu however, to whatever extent
ídnogu so, to such an extent
údnogu in some way, somehow
ge, genogu equally, to the same degree, as
oge, ogenogu unequally, to a different extent
gè, gènogu similarly, to a similar extent
ga, ganogu more, to a greater extent
gla, glanogu very, greatly, very much so
gra, granogu too, to too great an extent, overly, extremely
go, gonogu less, to a lesser extent
glo, glonogu slightly, to a small extent
gro, gronogu to too small a degree, under
gá, gánogu maximally, to the greatest extent possible
gó, gónogu minimally, to the smallest extent possible gé, génogu enough, rather, pretty, sufficiently, quite ogé, ogénogu insufficiently
fià, finogu to a good extent, well fuà, funogu to a bad extent, poorly végà, véga nogu proportionately
vácà, váca nogu to the right extent, properly, duly
vócà, vóca nogu to the wrong extent, disproportionately, unduly anogu primarily
enogu secondarily
uja nogu ultimately

## Determiners of Manner, Means

| manner |
| :--- |
| odè? how?, in what way? |
| udè this way, thus |
| idè that way, thus |
| adè how, in the way that, as |
| ódè in no way |
| ádè in every way |
| édè in whatever way, however |
| ídè so, in such a way |
| údè somehow' |
| gedè in the same way, also |
| ogedè otherwise |

gèdè similarly, likewise

## Determiners of Quantity

The noun following the determiner is in the singular if a mass noun (odganu dril how much ink) or in the plural if a countable noun (odganu jubi how many years).

| quantity |
| :--- |
| odganu?* how much, how many |
| udganu this much, this many |
| idganu that much, that many |
| adganu how much, how many, the amount/number that |
| ódganu no, not any, no amount of |
| ádganu all |
| édganu any, however much, however many |
| ídganu so much, so many |
| údganu a certain amount of, some, some number of' |
| ge, geganu as much, as many |
| oge, ogeganu a different quanity of |
| ga more |
| go less, fewer |
| gla a lot (of), much, many |
| glà a goodly amount (of), quite a few |
| glo little, too many |
| glò barely, scarcely, hardly |
| gá most |
| gro too little, too few |
| gó as little/few as possible |
| gé a fair amount (of), enough, quite a lot (of) |
| gê several |

* Literally: in what quantity, as in Odganu nac et àce? How much money do you have?. Used substantively, Odganu becomes Odgan, as in Odgan et àce? How much do you have? If followed by a mass noun, gla means much; if followed by a counting noun, gla means many; if followed by an adjective or adverb, it means very. All of the ga...ge...go words are multifunctional in this way.


## Determiners of Frequency

frequency (jig = rate, frequency
odjigu? how often?(lit: on how many occasions)
udjigu this often
idjigu that often
adjigu as often as, the rate that
ódjigu never
ádjigu every time
édjigu however often, anytime
ídjigu so often
údjigu with some frequency, sometimes'
gejigu as often
ogejigu at a different rate
gajigu more often
gojigu less often
glajigu (very) often, frequently
glojigu seldom, rarely, not very often
grajigu too often
gájigu as often as possible
grojigu too seldom
gójigu as seldom as possible
géjigu quite often, rather often, frequently enough

## Prepositions and relational adverbs

| positive |  | middle |  | negative |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ab | on, at the top <br> of | eb | between | ob | off, at the bottom of |
| áb | above, up | éb | amid, among | ób | below, down |
| bà | with, along | bè | by, via | bò | without |
| ib | away from | --- |  | ub | toward |
| íb | far from | --- |  | úb | near to |
| bi | from, of | be | at | bu | to |
| bí | starting with, <br> since | --- |  | bú | ending with, up to, as <br> far as |
| án | together | --- |  | ón | apart |
| za | in front of | ze | in the middle <br> of | zo | behind |
| zà | forward | zè | across | zò | back |
| áz | flush with | éz | in | óz | out |
| iza | straight | --- |  | uza | roundabout |


| $\mathbf{i ́ z}$ | beyond | --- |  | úz | around, about |
| :--- | :--- | :--- | :--- | :--- | :--- |
| zi | right | --- |  | zu | left |
| zí | all over | zé | through | zúa | round |
| ja | before | je | during, while | jo | after |
| jà | ahead (in time) | jè | throughout | jò | back (in time) |
| ji | since | -- |  | ju | until |
| av | for | ev | if | ov | against |

## Compound prepositions

Prepositions can be compounded for more detailed senses:

| compound preposition | example |
| :--- | :--- |
| ézbu into | It tôapa ézbu tim. He walked into the room. |
| ézbi in from | At upa ézbi mamil. I came in from the rain. |
| ézbe in (location) | Dén ce ézbe ném. The book is inside the box. |
| ózbu out to | Po ózbu ekem. Go out to the playground. |
| ózbi out of, out from | It upea ózbi ita ésim. He was coming out of his <br> office. |
| ózbe out in (as in: out in the <br> backyard $)$ | Potòg ce ózbe mamil. The pet is out in the rain. |
| ábzè over | Mampar pa ábzè tam. The plane flew over the <br> house. |
| óbzè under | At tôapa óbzè domep. I walked under the <br> highway. |
| zèbu across to | At tôapa zèbu ogeda kum. I walked over to the <br> other side. |
| zèbi across from | It beme zèbi at. He sits across from me. |
| zòbu back to | Ait pee zòbu Berlin. We are going back to <br> Berlin. |
| zòbe back at | Ait ce zòbe tom. We are back at home. |
| zòbi back from | Ait ce zóbi Berlin. We are back from Berlin. |
| zàbu ahead to | Teaso zàbu eta oj. Look forward to your future. |
| zàbi ahead of | Ed et ce zàbi at? Are you ahead of me? |
| ónbi apart from | Pa ónbi ogeti. It went apart from the others. |
| ánbe together with | Upo ánbe at. Come along with me. |
| izbu straight to | Po izbu ótotem! Go straight to hell! |
| izbi straight from | Ìt upa izbi nunem. She came straight from the <br> market. |
| izbe right at | At ca izbe zem. I was right at the center. |
| zabi in front of | At ce zabi et. I am in front of you. |


| zobi in back of | Et ce zobi at.' You are in back of me. |
| :--- | :--- |
| abu onto | Bo dén abu cem. Put the book onto the table. |
| abe on (at) | Dén ce abe cem. The book is on the table. |
| obi off of | Bio dén obi cem. Take the book off of the table. |
| obe on the underside of | Ece úd obe cem. There is something on the <br> underside of the table. |
| ábu up to | Po ábi eta tim. Go up to your room. |
| ábe $u p$ in | Od ce íd ábe mam? What is that up in the sky? |
| ábi up from | It upa ábi aaned. He came up from the first <br> floor. |
| ábè up (via) | At tôapa ábè meb. I walked up the mountain. |
| óbu down to | Upo óbu momtim. Come down to the basement. |
| óbe down in | At ce óbe momtim. I am down in the basement. |
| óbi dowm from | Upo óbi mamtim. Come down from the attic. |
| óbè down (via) | It igpa óbè meb. He hurried down the mountain. |
| óbézbu down into | Pa óbézbu mom. He went down into the <br> underground. |
| úzbu around to | Po úzbu ogeda kum tama. Go around to the <br> other side of the house. |
| úzbè around (via) | Par pa úzbè tam. The car went around the <br> house. |
| ízbi past, beyond | Par pa ízbi ait. The car went past us. |
| ízbu on to | At pa ízbu Kanad. I went on to Canada. |

## Postpositions / Cases

The following case endings or postpositions are shortcuts for prepositions:

| short form | long form |
| :--- | :--- |
| -a of, from | bi |
| $-\mathbf{u}$ to, on, at | bu to or be $a t /$ in $/$ <br> on |
| -à with | bà |
| -̀̀ without | bò |
| -è by, via, through, per | bè |

For example, the following expressions are equivalent:

| short form | long form |
| :--- | :--- |
| be tam bi $X$ at the house of $X$ | tamu Xa |
| bi dom bu dom from town to <br> town | doma domu |


| tej bò if life without pleasure | tej ifò |
| :--- | :--- |
| bè Paris by way of Paris | Parisè |
| bà at with me | atà |

## Other Prepositional Constructions

vélu regarding, concerning, about, with respect to
gè ov despite
kumu next to, beside, along, on the side of
ón bi apart from
án bu together with
gal in addition to, plus, including, besides
gol minus, except
gar times, multiplied by
gor divided by
zamu...-a in the face of (also: be zamu bi)
cànu ...-a in the guise of
canu ...-a in the form of
debanu ...-a under the auspices of
ûb in the presence of, in the face of
dida ...-è at the request of
iju...-a at the end of
tecu...-a in the sense of
av búun...-a for the sake of
... thanks to
... along the lines of
izanu...-a in the direction of
zág along
kumnidu ...-a on the edge of, on the brink of
genidu ...-a in line with, parallel to
úbanu ...-a in the vicinity of, around
gáanu ...-a in excess of
bi abem...-a off the top of
bi kumnidu...-a from the brink of
dudea...-u in response to
ovbea in opposition to
... in contrast to
lovanu...-a in spite of

| oejanu...-a in the absence of |
| :--- |
| usu ...-a because of |
| usu ...-a on account of |
| gè ov notwithstanding |
| ...-è per |
| zé via |
| vél than, compared to, relative to |
| adju ...-a at the time of |
| admu ...-a at the place of |

## Using prepositions

Prepositions go between the two elements they link, just as in English. Here are some examples:

| Mirad | English |
| :--- | :--- |
| Odju et po bu déntam?(or: déntamu) | When are you going to the library? |
| Uda bun ce av et (or: etu). | This gift is for you. |
| Dyen ca ab cem (or: cemu). | The book was on the table. |
| Upu bay at (or: atà). | Come with me. |
| Iyt igpa ub titam. | She ran toward the school. |
| Et co éz gela titim. | You will be in the same class. |
| Tob tyoyapa ózbi tam. | The man walked out of the house. |
| Mampar zaymampa ábzè dom. | The plane flew over the city. |
| Nidpar pa bi him bu hum. | The train went from here to there. |
| Et voy ibo bun ju zemoj. | You won't receive the gift until midnight. |

## Prepositions prefixed to verbs

As adverbials, many prepositions can be prefixed to other words, especially to verb bases. The following is a list of per (go) and ber (put) verbs with prepositional prefixes. Note that prepositions ending in $\mathbf{b}$ drop the $\mathbf{b}$ before the verb bases per and ber.

| intransitive |  | transitive |  |
| :--- | :--- | :--- | :--- |
| aper | get on | aber | put on |
| eper | stop | eber | stop |
| oper | get off | ober | take off |
| áper | rise | áber | raise |
| éper | intervene | éber | block |
| óper | descend | óber | lower |


| iper | go (away) | iber | receive |
| :--- | :--- | :--- | :--- |
| uper | come | uber | send |
| úper | approach | úber | bring near |
| íper | go away | íber | take away |
| ézper | enter | ízber | bring in |
| ízper | surpass | take beyond |  |
| zéper | go through | zèber | pull through |
| zèper | transit | ánber | unite |
| ánper | meet | ónber | separate |
| ónper | separate | zúber | turn |
| izper | go straight/ head (for) | izber | guide |
| zúper | roll | ózber | take out |
| ózper | exit | zòber | take back |
| zòper | return, go back | zòbuer | give back |
| zòpuer | arrive back | zoteaser | look behind |
| zateaser | look forward | ízteaser | look beyond |
| zèteaser | look across | ózteaser | look out |
| zéteaser | look through | óbteaser | look down |
| ézteaser | look in | izteaser | look straight (ahead) |
| ábteaser | look up | zuteaser | look right |
| ibteaser | look away | ovdaer | speak against |
| ziteaser | look left | look askance | speak for |
| uzteaser | looser | avdaer | sper |
| avall |  | look around |  |
|  |  | around |  |

## Personal pronouns and pronominal adjectives

Personal pronouns have three persons (represented by the ordinal vowels a (1st), e (2nd), and $\mathbf{i}$ (3rd).

The plural forms have the suffix $\mathbf{i}$.
There are also three case forms, which are alternate ways of expressing prepositional relations: Add -a for the genetive/possessive (of, from); -u for the locative/dative (to, at, 'for); -à (short for bà) for with; è (short for bè) for through/by, and ò (short for bò) for without.

Note: These are the same case endings that can be added to any nouns. For example, tamu (to the house), taébò (without hair), teda (father's).

| nominative/ac |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| cusative | genetive/po <br> ssessive | dative/lo <br> cative | comitive | instrumental | privative |


| at (I, me) | ata (my, mine) | atu (to/for me) | atà (with me) | atè (through/by me) | atò (without me) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| et (you) | eta (your, yours) | etu <br> (to/for <br> you) | età (with you) | etè (through/by you) | etò (without you) |
| it (he, him) | ita (his) | itu (to/for him) | ità (with him) | itè (through/by him) | itò (without him) |
| ìt (she,her) | ìta (her, hers) | ìtu (to/for her) | ìtà (with her) | ìtè (through/by her) | ìtò (without her) |
| ati (we, our) | atia (our, ours) | atiu <br> (to/for us) | atià (with us) | atiè <br> (through/by us) | atiò (without us) |
| eti (you [all]) | etia (your, yours) | etiu (to/for you) | etià (with you) | etiè <br> (through/by <br> you) | etiò (without you) |
| iti (they, them (m. or m/f)) | itia (their) | itiu (to/for them) | itià (with them) | itiè <br> (through/by <br> them) | itiò (without them) |
| ìt (they (f.)) | ìtia (their) | ìtiu (to/for them) | ìtià (with them) | ìtiè <br> (through/by <br> them) | ìtiò (without them) |

Possessive pronouns are expressed with the addition of -c to the genetive/possessive ending:

| English | Mirad |
| :--- | :--- |
| This book is mine. | Uda dén ce atac. |
| Those books are ours. | Ida déni ce atiaci. |
| Theirs has not arrived. | Itiac vò puaé. |
| Theirs have arrived. | Itiaci puaé. |
| Is this yours or mine? | Ev ud ce etac vè atac? |
| Will you come to mine tomorrow? | Ev et upo atacu zajubu? |
| Nothing will happen without yours. | ód swo etacò. |

## Conjunctions

## Correlative Conjunctions/Adverbs

| positive | neutral | negative |
| :--- | :--- | :--- |
| va yes | ve maybe | vo no |


| và indeed | vè possibly | vò not |
| :--- | :--- | :--- |
| và...và both...and | vè...vè either...or | vò...vò neither...nor |
| av that, so that, <br> for | ev whether, if | ov lest, against |
| à and | è or | ò but |
| -à with | -è by, through, via | -ò without |
| ga more (than) | ge as, equal to | go less (than |
| gá most | gé enough | gó least |
| gà also, moreoever | gè even, |  |
| including | gò except, but |  |
| gla very | gle somewhat | glo slightly, little, not very |
| gra too (much) | gre just, exactly | gro too little |

Note: oev = unless; ad means that as the conjunction introducing a factual clause, not to be confused with av meaning so that introducing a subjunctive or unreal clause.

| English | Mirad |
| :---: | :---: |
| I do want to go, but I cannot. | At và vage per ò at vò vege. |
|  | Ev et te ev it upo? |
| It will either rain or snow. | Vè mamilo vè màlómo. |
| If it rains, I'll not come. | Ev mamilo at vò upo. |
| No, it's not true that he died. | Vo, vò ce váa ad it tuja. |
| My father and mother are still alive. | Ata ted $\underline{\text { à tèd gaju tejeé. }}$ |
| Is it true that you were you born here? | Ev et tija udmu? |
| We did not know (that) you were married. | Ati vò ta ad et ce tadca. |
| The fact that you work is not the issue. | Ad et ése vò ce kos. |
| Whether you work or play is more important. | Et vè ése vè eke ce ga kíta. |
| Unless you go to school you will never learn anything. | Oev et po titamu et ódju tio úd. |
| In order to learn you must study more. | Av ticer et ége ga tier. |
| Everyone except you is ready. | Yat gò et ce perfia. |
| Did you want me to come long?' | Ev et vaga $\underline{\text { av }}$ at àpu? |
| I want you not to leave. | At vage ov et piu. |
| Don't tell her what I did. | Ov du ìtu od at sa. |
| Are you for or against me? | Ev et av è ov at? |

## Other Conjunctional Expressions

| conjunction | example |
| :--- | :--- |
| ad that | Ati ta ad it upo. We knew (that) he would come. |
| av so that | At egdo id av et tico. I will repeat it so that you'll |


|  | understand. |
| :---: | :---: |
| avad because | It tuja bi us avad it vò abá ígtef. He died because he was not wearing a helmet. |
| ju until | Ju et uvdo at vò teapo et. Until you apologize, I will not visit you. |
| ji since | Ji et pua at cee iva. Since you arrived, I've been happy. |
| ánad even though, although | Ánad et oka, at gaju fítce et. Even though you lost, I still respect you. |
| ovad despite the fact that | Ovad et zageda, et vò upa. Despite the fact that you agreed in advance, you didn't come. |
| igjo as soon as | Igjo ìt pua at gafi teca. As soon as she arrived, I felt better. |
| váfà ge just as | Váfà ge at jada, ija mamiler. Just as I predicted, it started raining. |
| ge ev as if | Ìt teubozá ge ev ìt ca iva. She smiled as if she were happy. |
| ev whether | At vò te ev mamilo. I don't know whether it will rain. |
| ev if | Et zàpo ev et éko. You will advance if you try. |
| à and | Et à at ce gá fia. You and I are the best. |
| è $o r$ | Et vege jobier è kobier; ce eta kebi. You can borrow or steal; it's your choice. |
| kéà ad in the event that | Kéà ad mamilo, aúbio eta mamilovar. In the event that it should rain, bring along your umbrella. |
| fiákea av in the hope that | It nucbia drénet fiákea av it ako. He bought a ticket in the hope that he would win. |
| fúnea ov for fear that | It ézpa fúnea ov mamilo. He went inside for fear that it might rain. |
| ov lest | Bono ov et tíjso lopét. Stay calm lest you awake the snake. |
| ónad aside from the fact that | Yonad gaijop mamile, doma mamecan ce gla fia. Aside from the fact that it rains occasionally, the city's weather is very nice. |
| tea ad knowing that | At vage tujer tea ad at po totamu. I want to die knowing that I will go to heaven. |

## Verbs

Verbs in Mirad are conjugated for tense (present, past, future), mood (indicative, conditional/imperative/subjunctive/jussive), voice (active, passive), and finiteness. The verbal system is perfectly regular and predictable. The infinitive, which serves as the dictionary lookup form, always ends in -er. The stem, therefore, is the infinitive without the -er ending. For example, the stem of the verb buner (to push) is bun. The stem is used as the base of all conjugated verb forms.

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## Finite forms

Finite verb forms are modulated for tense based on the three-way vowel distinction $\mathbf{a}$ (present), $\mathbf{e}$ (past), and $\mathbf{o}$ (future).
A fourth ending, $\mathbf{u}$ is used for the equivalent of the English conditionals, subjunctives, and imperatives.
Verbs can be further modulated for progressive, anterior (perfect), and imminent senses through compounding.
Endings do not change depending on the subject person. For example, unlike in English where $a m$, are, and is are used in the present depending on the subject, the Unilingua verb cer has one present indicative form of to be for all persons: ce.

| Mirad | English |
| :--- | :--- |
| at ce | I am |
| et ce | you are |
| it ce | he is |
| it ce | she is |
| id ce | that is, it is |
| ud ce | this is |
| ot ce | who is? |
| ati ce | we are |
| eti ce | you (all) are |
| iti ce | they are |
| íti ce | they are |
| oti ce | who are $?$ |
| át ce | everyone is |
| ét ce | whoever/anyone <br> is |
| ód ce | nothing is |
| apeti ce | horses are |

## Simple tense forms

The simple tense verb forms are generated by adding the tense markers a, e, o, or the conditional marker $\mathbf{u}$ to the stem of the verb. For example, the stem of the verb ter to know is $\mathbf{t}$ and the inflected forms of the simple tenses are as follows:

## Active voice forms

| ending | meaning | example |
| :--- | :--- | :--- |
| e | present | It te. He knows. |


| $\mathbf{a}$ | past | At ta. I knew. |
| :--- | :--- | :--- |
| $\mathbf{o}$ | future | Et to. You will know. |
| $\mathbf{u}$ | conditiona <br> $l$ | Iti tu. They would <br> know. |

## Non-indicative forms

The $\mathbf{u}$ ending is not only used for the conditional as above, but also nonindicatives moods such as the imperative and and subjunctive. The conditional form without a subject is used for imperatives (direct commands). Positive subjunctives and jussives are expressed with the use of the affirmative jussive conjunction av (for, so that, let) followed by the subject and the verb in the conditional.

| pattern | meaning | example |
| :--- | :--- | :--- |
| Vu | direct <br> command | Aku! (short for Av et aku!) Win!. |
| av N Vu | may $N V$ | Av ati aku! May we win!. |
| av N Vu | let $N V$ | Av it upu. Let him come. |
| av N Vu | wishes, etc. | At vàge (av) et piu. I wish you would leave. |

Negative subjunctives and jussives are expressed with the use of the negative jussive conjunction $\mathbf{O v}$ (against, lest) followed by the subject and the verb in the conditional.

| pattern | meaning | example |
| :--- | :--- | :--- |
| ov Vu | direct <br> command | Ov oku!. Don't lose! |
| ov N Vu | may $N V$ | Ov ati oku! May we NOT lose!. |
| ov N Vu | lest $N V$ | Ov it upu. Don't let him come. |
| ov N Vu | wishes, etc. | At vayge ov et piu. I wish you would NOT leave (lit: I <br> wish lest you leave). |

Unreal conditionals are expressed with the conditional conjunction ev (if, whether) followed by the subject and the verb in the conditional (-u) in both the main and subordinate clause..

| pattern | meaning | example |
| :--- | :--- | :--- |
| ev N Vu, N <br> Vu... | if N were..., N <br> would... | Ev at cu edeb, at ívsu it. If I were king, I <br> would free him. |

## Illative patterns

## Interrogative

Beginning a sentence with the conditional conjunction ev (whether, if) makes the
sentence into a yes/no question:

| pattern | meaning | example |
| :--- | :--- | :---: |
| ev + VP | Is it true <br> that...? | Ev et aka? Did you win? |

## Negative

Use the negative adverb voy (not) in front a verb to negate it:

| pattern | meaning | example |
| :--- | :--- | :--- |
| vò + V | negative | Et vò ako. You will not win. |
| ev + negVP | negative <br> interrogative | Ev et vò akeé? Aren't you winning? |

## Affirmative

Similary, the positive adverb vay (indeed) is used in various combinations to qualify verbs. Like voy (not), this adverb immediate preceeds the verb form.

| ending | meaning | example |
| :--- | :--- | :--- |
| vay $+\mathbf{V}$ | affirmativ <br> $e$ | At vay aka. I did win. / I won <br> indeed. |

## Potential

Used the potential adverb vè (maybe) in front of a verb to qualify it as potential or possible (like English may):

| ending | meaning | example |
| :--- | :--- | :--- |
| vè + V | potential | It vè ako He may win!. |
| ev + VP | negative potential <br> interrogative | Ev et vè vò akaú? Might'nt you have <br> won? |

## Passive voice forms

The passive voice is formed by preceding the tense endings with $\mathbf{w}$.

| ending | meaning | example |
| :--- | :--- | :--- |
| $\mathbf{w + e}$ | present | It twe. He is known. |
| $\mathbf{w + a}$ | past | It twa. He was known. |
| $\mathbf{w + o}$ | future | It two. He will be known. |
| $\mathbf{w + u}$ | conditiona <br> $l$ | It twu. He would be <br> known. |

## Progressive aspect forms

The progressive or continuous tenses, which are optional and used only where the distinction is useful, are formed from the simple present forms by compounding with pre-yodified tense vowels.

| ending | meaning | example |
| :--- | :--- | :--- |
| $\mathbf{e + e ́}$ | present continuous active | At akeé. I am winning. (pronounced: $a-K E$ - <br> ye) |
| e+á | past continuous active | At akeá $I$ was winning. (pronounced: $a-K E-$ <br> ya) |
| $\mathbf{e + \mathbf { o ́ }}$ | future continuous active | At akeó. I will be winning. |
| e+ú | conditional continuous <br> active | At akeú. I would be winning. |
| we+é | present continuous <br> passive | At akweé. I am being beaten. |
| we+á | past continuous passive | At akweá I was being beaten. |
| we+ó | future continuous passive | At akweó. $I$ will be in the process of being <br> beaten. |
| we+ú | conditional continuous <br> passive | At akweú. I would be in the process of <br> being beaten. |

## Anterior tense forms

The anterior or perfect tenses, which are also optional, are formed from the simple past tense form by compounding with pro-yodified tense vowels.

| ending | meaning | example |
| :--- | :--- | :--- |
| a+é | present perfect active | At akaé. I have won. |
| a+á | past perfect active | Ati akaá We had won. |
| a+ó | future perfect active | Ati akaó. We will have won. |
| a+ú | conditional perfect active | Ati akaú. We would have won. |
| wa+é | present perfect passive | Iti akwaé. They have been beaten. |
| wa+á | past perfect passive | Iti akwaá. They had been beaten. |
| wa+ó | future perfect passive | Iti akwaó. They will have been beaten. |
| wa+ú | conditional perfect <br> passive | Iti akwaú. They would have been <br> beaten. |

## Imminent aspect forms

The so-called imminent tenses are formed from the simple future active tense forms in the same way.

| ending meaning | example |
| :--- | :--- |


| $\mathbf{o + e ́}$ | present imminent active | At akoé. I am going to win. |
| :--- | :--- | :--- |
| o+á | past imminent active | At akoá I was about to win. |
| wo+é | present imminent <br> passive | Et akwoé. You are going to be beaten. |
| wo+á | past imminent passive | Et akwoá. You were about to be <br> beaten. |

## Non-finite forms

| ending | meaning | example |
| :--- | :--- | :--- |
| er | active infinitive | Et áge aker You must win. |
| wer | passive infinitive | Et vò vagu akwer You would not want to be <br> defeated. |
| en | active verbal noun | Aken ce ád. Winning is everything. |
| wen | passive verbal noun | At vò ife akwen. I do not like being beaten. |
| ea | active present <br> participle | Akea ekut The winning player |
| aa | active past participle | Akaa ekut The player who won. |
| oa | active future participle | Tob ce tujoa. Man is mortal (about to die). |
| ua | active conditional <br> participle | Tob cua deb. The man who would be king. |
| wea | passive present <br> participle | Akwea ekut The player being beaten |
| waa | passive past participle | Magelwaa taol Cooked meat. |
| woa | passive future <br> participle | Teacwoa pancin the film to be seen |
| wua | passive conditional <br> participle | Oteacwua tob the invisible man |
| eà | present affirmative <br> gerundive | At teacibso pueà. I will call upon arriving. |
| eò | present negative <br> gerundive | At ija teò éd. I started without knowing <br> anything. |
| aà | past affirmative <br> gerundive | Teacaà at pia. Having seen, I left. |
| aò | past negative gerundive | At pila dom teacà̀ ád. I left the town <br> without having seen everything. |
| enè | present instrumental <br> gerundive | Et akso gla ésenè. You will succeed by <br> working hard. |

- Note: The -ua/wua ending approximates the English -able ending. oteacwua $=$ invisible, íztijua $=$ survivable, ogorwua $=$ 'indivisible, vegua $=$ capable, opanua $=$ immobile. Adding an -n forms the substantive, eg. ogorwuan $=$ indivisibility.


## Conditional constructions

In sentences with conditional clauses the conditional clause is in the same tense as the main clause, contrary to the practice in English:

- Ev mamilo at co uva. If it rains (= will rain), I will be sad.
- Ev mamilaú at caú uva. If it had rained (= would have rained), I would have been sad.
- Ev at cu nasika at ga zípu. If I were (= would be) rich, I'd travel more.
- Ev et tu dud, (av et) du id atu. If you (= would) know the answer, (= that you would) tell it to me.


## Sequence of tenses

Unlike in English, the tense of a consecutive clause is a real tense, not an adjusted tense relative to the main clause:

- It da ad it tadco at. He said he would (= will) marry me.
- It da ad it teaca it ejipu. He said he had seen (= saw) it twice.


## Impersonal constructions

Impersonal verbs are conjugated without the subject personal pronoun:

- Mamileé. It is raining.
- Amco. It will warm up.
- Eco dropek. There will be a war.
- Ége av et upu já. It is necessary that you come early.
- Ce fia. It's ok.


## The verb "to be"

In Mirad, the verb cer (to be) is not suppressed in the present tense as in some languages like Russian or Agapoff's original version of Unilingua. Also, there is no existential distinction as in Spanish between ser and estar. Furthermore, the progressive forms ceá and ceé can be used at times as in some of the examples below:

- Ati ce íva! We are free.
- At co idmu. I'll be there.
- Déni ca ab cem. The books were on the table.
- Cayo e jubi ji at ca dopu. It will have been two days since I was in the army.
- Cer ey voy cer. To be or not to be.
- At caú uva ev et vò upaú. I would have been sad if you hadn't
come.
- Et ceé gla fua. You are being very bad.
- At vò ceá ivcla.' I was not being funny.


## Reflexive constructions

Verbs can be made reflexive by adding the direct object get (self).

- At vímila get ja per majtulu. I washed up (washed myself) before going to breakfast.
- Tobet tuja get. The boy killed himself.
- At teasa get cinzéfu. I looked at myself in the mirror.
- Tu get! Know thyself!


## Modal or auxiliary verbs

| Mirad | English | Meaning | Example |
| :---: | :---: | :---: | :---: |
| íver | may | permission | Et íve iper. You may leave. |
| úver | must | requirement | Et úve iper. You must leave. |
| ûver | should | obligation | Et ûve iper. You should leave. |
| éger | have to | necessity | At ége iper. I have to leave. |
| êger | should | obligation | Et êge iper. You ought to leave. |
| vager | want to | volition | At vage iper. I want to leave. |
| vaager | long to | yearning | At vaage iper. I long to leave. |
| vàger | would like to | preference | At vàge iper. I would like to go. |
| vagrer | be eager to | eagerness | At vagre iper. I am eager to leave. |
| valter | intend to | intention | At valte iper. I intend to leave. |
| veger | can | ability | At vege ser id. I can do that. |
| voger | refuse to | refusal | At voge ser id. I refuse to do that. |
| áker | expect to | expectation | At áke aker. I expect to win. |
| áaker | hopeto | aspiration | At áake aker. I hope to win. |
| éker | try to | attempt | It vò éko iper. He won't try to leave. |
| ékler | dare to | dare | It vò éklo iper. He will not dare leave. |
| óker | to be surprised to | surprise | At óka aker. I was surprised to win. |
| ifer | to love to | love | It ife eker. He loves to play. |
| ìfer | to like to | liking | It ìfe eker. He likes to play. |
| ufer | to hate to | hate | It ufe eker. He hates to play. |
| ùfer | to dislike to | dislike | It ùfe eker. He dislikes playing. |


| iver | to be glad to | gladness | At ivo iper. I shall be glad to leave. |
| :--- | :--- | :--- | :--- |
| uver | to regret to | regret | At uva der id. I regretted saying it. |
| aver | to favor | espousal | At ave iper. I favor leaving. |
| over | to be opposed to | opposition | At ove eker. I am opposed to playing. |

As you see in the examples above, modal verbs are followed by the infinitive form (-er) of the main verb.

## Subordinate clauses introduced by ad

The positive complementizer particle ad (the fact that) is used to introduce a subordinate clause:

- At ta (ad) it upo. I knew THAT he would come.
- At ce vala (ad) et vádeé. I'm sure THAT you are telling the truth.
- Ad mamilo ce valan. THAT it will rain is a certainty.
- Ata tèd da (ad) iyt co tamu ojo èmaj. My mother said THAT she would be home by noon.

As in English, if the that can be dropped without any loss of meaning, it can be:

- At da at dro. I said I'd (= I'll) write.
- Et ta it sa id. You knew he had done (= did) it.

Unlike in English, a relative sequence of tenses is not applied. For example, English "I knew he would come." is rendered in Unilingua as "I knew he will come."

Do not confuse the particles ad and av. Clauses following ad are facts, whereas clauses following av are unreal wishes. Av should be thought of as so that.

- At pana av it ábtu. I moved so that he could (= would) sit down.
- At ta ad it ábto. I knew that he would (= will) sit down.


## Subordinate clauses introduced by ev

The conditional complementizer particle ev (whether) is used to introduce a subordinate clause of the type "whether...":

- At vò ta ev it upo. I did not know whether he would come.
- Ev it upo ca teskía atu. whether he would or would come was not important to me.


## Adjectives

Adjectives end in the suffix -a. They are invariable in form:

- aga big
- oga small
- aza strong
- oza weak
- taba bodily
- teaba ocular
- tea aware
- otea unaware

Adjectives used substantively to describe persons end in -t, while those used to describe things end in -c:

| adjective | animate substantive | inanimate substantive |
| :--- | :--- | :--- |
| yoga young / <br> new | yogat youth | yogac novelty |
| tuja dead | tujat dead person | tujac dead thing |
| fia good | fiat good person | fiac good thing |

Adjectives always preceed the noun they modify:

- aga tam a big house
- yaga drun the long sentence
- aza tob the strong man
- mona maf a dark cloud

Serial adjectives usually go in the same order as in English:

- ujna via jeeba jub the last beautiful summer day


## Degrees of Comparison in Adjectives and Adverbs

## Summary of Comparison Constructions

Note: vél is a preposition that comes from the verb véler to relate and is used to signal the object against which a relative comparison is being made (than, relative to).

| Mirad | English |
| :--- | :--- |
| ga...vél | more...than |
| ge...vél | as...as |
| go...vél | less...than |
| gá...vél | the most...in/of |
| gé...vél | rather...compared <br> to |

gó...vél the least...in/of

## The Comparative of Superiority

More than is expressed by the adverb ga, followed by the adjective, adverb, or verb and the preposition vél (in relation to, than, as) preceding the noun, pronoun, or predicate being compared:

| Mirad | English |
| :--- | :--- |
| Ata tadet ce ga aza vél et. | My brother is stronger than you. |
| At ga ése vél et. | I work more than you. |
| Ita tedet ga aga vél ata. | His son is taller than mine. |
| Uda dén ce ga ketlea vél idac. | This book is more interesting that that <br> one. |
| Mam ce ga aga vél et tese. | The sky is bigger than you think. |

The Comparative of Equality
As...as' is expressed by the adverb ge, following by the adjective, adverb, or verb and the preposition vél (in relation to, than, as) preceding the noun, pronoun, or predicate being compared.

| Mirad | English |
| :--- | :--- |
| Ìt ge te vél at. | She knows as much as I do. |
| At ge fi deuze vél et. | I sing as well as you do. |
| Ata tam ce ge aga vél eta. | My house is as big as yours. |
| Ece ge tobi vél tobomi. | There are as many grownups as <br> babies. |

## The Comparative of Inferiority

Less...than' is expressed by the adverb go, following by the adjective, adverb, or verb and the preposition vél (in relation to, than, as) preceding the noun, pronoun, or predicate being compared.

| Mirad | English |
| :--- | :--- |
| Ìt go te vél at. | She knows less than I do. |
| At go fi deuze vél et. | I sing less well than you do. |
| Ata tam ce go aga vél etac. | My house is less big than yours. |
| Ece go tobi vél tobomi. | There are fewer grownups than <br> babies. |

## The Superlative of Superiority

The most...of/in' is expressed by the adverb gya, followed by the adjective, adverb, or verb, and the compared noun or pronoun preceded by the preposition vyel.

| Mirad | English |
| :--- | :--- |
| Ud ce gya yobaga miam vyel mir. | This is the deepest lake in the world. |
| At gya fi deuze. | I sing the best. |
| Gya fia ticudi vyel ticudyan <br> akbuyo. | The best students in the class will be <br> rewarded. |
| At ce gya ivat vyel yati. | I am the happiest person of all. |

The Superlative of Inferiority
The least...of/in' is expressed by the adverb gyo, followed by the adjective, adverb, or verb, and the compared noun or pronoun preceded by the preposition vyel.

| Mirad | English |
| :--- | :--- |
| Uda ticud ce gó tepaza vél áda <br> ticudi. | This student is the least intelligent of all the <br> students. |
| At gó fi deuze. | I sing the least well. |
| Gó fia ticudi vél ticudyan <br> uóvfuso. | The worst students in the class will be <br> punished. |
| At ce gó ivat vél áti. | I am the least happy person of all. |

Idioms Using Adjectival/Adverbial Comparison Constructions

| Mirad | English | example |
| :--- | :--- | :--- |
| ga...ga | the more...the <br> more | Ga mamile ga ilirke. The more it rains, the more <br> it floods. |
| ga...go | the more...the <br> less | Ga iva at ce ga azà at dae. The happier I am the <br> louder I speak. |
| go...ga | the less...the <br> more | Go et tile ga fia ce. The less you drink the better. |
| go...go | the less...the less | Go et ézbue go et ózbie. The less you put in the <br> less you get out. |
| gá... | as much as <br> possible... | At tele gá ida telamu. I eat as much as possible in <br> that restaurant. |
| gá veá... the most possible | Puo gá já veá. Arrive as early as possible. <br> gó veá... <br> the least possibleBookco gó veá. Tire yourself out the least <br> possible. |  |

## vòga...v $\left.\right|_{\text {no more...than } \quad \mid A t ~ t i l a ~ o g a ~ v e ́ l ~ j u b e ́ n a ̀ . ~ I ~ d r a n k ~ n o ~ m o r e ~ t h a n ~} ^{\text {ut }}$ él usual.

Note: vél, as a preposition, originates from a verb, much like the prepositions gal plus and gar times:

| verb | preposition |
| :--- | :--- |
| galer to add | gal plus |
| garer to <br> multiply | gar times |
| goler to subtract | gol minus |
| gorer to divide | gor divided by |
| véler to relate | vél relative to, <br> than |

## Adverbs

## Formation

Adverbs can be formed from adjectives by post-yodifying the adjectival ending, that is, by changing -a to -à, for example:

| adjective | adverb |
| :--- | :--- |
| fia good | fià well |
| ana <br> single | anà only |
| gía easy | gíà <br> easily |

The adverbial ending -à is really the same as the comitive ending, meaning with. So, in effect, nouns in the comitive case are really adverbs. The same holds true for the instrumental ending -è by means of, through, by.

| noun | adverb |
| :--- | :--- |
| gúan <br> difficulty | gúanà with difficulty |
| ágan length | áganè lengthwise, by <br> length |
| bik care | bikà with care, carefully |
| at me | atè by $m e$ |

Similarly, a noun in the dative case (-u) can amount to an adverbial expression.

| noun | adverb |
| :---: | :---: |
| uda job this day | udjobu today |


| oda em which place | od(e)mu where? |
| :--- | :--- |
| tam house | tamu (at) home |
| mep way | mepu en route |

Some words are inherently adverbs:

- áb up as in go up
- ób down as in come down
- zà ahead as in run ahead
- zò back as come back
- úz around as in spin around
- ga more as in eat more
- go less as in eat less
- ge same, as as in as big or do the same
- gla very as in very good
- glo not so as in not so bad
- và indeed as in He is indeed our leader.
- vò not as in He is not our leader.
- vè possibly as in It's possibly true.


## Comparison

Adverbs are compared in the same way as adjectives:

| normal | equalitive degree | comparitive <br> degree | maximal degree |
| :--- | :--- | :--- | :--- |
| igà <br> quickly | ge igà (vél) as quickly <br> (as) | ga igà more <br> quickly | gá igà as quickly as <br> possible |
| ugà <br> slowly | ge ugà (vél) as slowly <br> (as) | go ugà less slowly | gá ugà as slowly as <br> possible |

## Syntax

Adverbs, like adjectively, normally precede the element in the sentence which they modify, however, this rule is a loose one and can be bent without peril in most cases.

- Igà upu! Come quickly!'
- At anà go te. I know only a little.
- Uda tam fià ceswa. This house was built well.
- Et vò sa ge fuà. You did not do as badly.
- Upu gá ubà. Come as closely as possible.
- At vò te ev it pa áb è ób. I don't know whether he went up or down.


## Shortcuts

Adverbs formed from adjectives ending in -ia or -ua can be shorted to -i and -u, respectively:

- Pu fi! Fare well!'
- vi swa beautifully done
- ésu gú! Work hard!


## 6 Conversation Lessons

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## Lesson 1: Greetings (Dotsini)

| Mirad |  |
| :--- | :--- |
| Cu baka! | Hello! [Lit: "Be healthy."] |
| Gè et. | Hi. (in return) [Lit: "Equally you."] |
| Fijub! | Good day! |
| Fimaj! | Good morning! |
| Fiumaj! | Good evening! |
| Fimoj! | Good night. |
| Upu và!! | Welcome! [Lit: "Come indeed"] |
| Et ce odéna? | How are you? [Lit: "You are what-like"] |
| Et ce odbéna? | How are you? [Lit: "You are in-what-situation."] |
| At ce baka. | I'm fine. [Lit: "I am well."] |
| At ce fibéna. | I'm fine. [Lit: "I am in-good-situation."] |
| At ce ficana. | I'm fine. [Lit: "I am in-good-form."] |
| Ev coni fipe? | How are things? [Lit: "Are things going well?"] |
| Yad fipe. | Everything is going well. |
| Et se odà? | How are you doing? [Lit: "You do how?"] |
| At se fià. | I'm doing well. [Lit: "I do well." |
| Vò fia vò fua. | So-so. [Lit: "Not good not bad."] |
| Naztwe! | Thanks! [Lit: "It is appreciated."][naz = value] |
| Atu ifca. | You're welcome. [Lit: "It was a pleasure for me."] |
| À ev et? | And you? [Lit: "And whether you?"] |
| At gè ce baka. | I'm fine, too. [Lit: "I likewise am healthy."] |
| Od ce joga? | What's new. [Lit: What is new?"] |
| Ód. | Nothing. |
| Eta tod ce odéna? | How is your family? [Lit: "You family is what-way?"] |
| Ata tod ce ficana. | My family is fine. [Lit: "My family is in good shape."] |
| Cu baka!! | Goodbye!, Farewell!! [Lit: "Be healthy."] |
| Gè et!! | Goodbye to you, too! [Lit: "Likewise you."] |

## Vocabulary Notes

- bak = health
- baka = healthy
- cer = to be
- cer baka = to be healthy, to be well
- Cu baka!! [future/imperative] = Be well! Farewell! Hello!
- At ce baka. = I'm fine. (=I am well.)
- gè = equally, also, too, likewise
- gè at = me too; $I$, as well
- gè fia = equally good, also good
- gebénu = in the same situation/manner
- $\mathbf{e v}=$ Whether?; Is it true that?
- od? = What?
- odà? = How? (-à = adverbial ending/"with")
- odéna? = How?, (Lit: what-wise?)
- odbéna? = How? (Lit: what-mannered?)
- odcana? = How? (Lit: what-shaped?)
- av = for (prep), let, so that (conj.)
- Av it bakcu. = Let him be well. [Lit: "So that he be healthy."]
- $\mathbf{a}=a n d(\grave{\mathbf{o}}=b u t$, è $=o r)$
- vo $=$ no (va = yes, ve $=$ maybe $)$
- vò = not (và = indeed, certainly, vè = possibly, may)
- vò fua = not bad
- At vè ce boka. = I may be ill.
- It và ce ficana. $=H e$ is really in good shape.
- ód = nothing (ád = everything)
- at $=I$, me
- atu = to me, for me
- ata $=m y$, mine
- et = you
- etu = to you, for you
- eta = your
- $\mathbf{i t}=$ he, him
- $\mathbf{i t u}=$ to him, for him
- $\mathbf{i t a}=$ his
- can = shape, form, condition, state, status
- fican = good shape, good form, good condition
- ficana $=$ in good shape, well, in good condition
- ficana cer / fincancer = to be in good shape, to be fine
- fucan = bad shape, bad condition
- fucana cer / fucancer = to be in bad shape, to be unwell
- odcana = in what shape, how
- odcana ce... = How is...
- bén = manner, situation
- $\mathbf{f i a}=\operatorname{good}(\mathbf{f u a}=b a d)$
- fibéna $=$ in a good situation, fine
- odbéna? = in what situation?, in what manner?, how?
- ge = equal, same, as
- gebéna $=$ in the same situation, unchanged
- naz = value
- ter = to know
- twer = to be known
- nazter = to appreciate, to know the value, to be thankful
- naztwe. $=(I t)$ is appreciated [passive voice], thank-you, thanks
- Gla naztwe. = Much appreciated; Thank-you very much.
- der $=$ to say (...to [someone] $=\ldots$. u )
- nazder $=$ to express appreciation, to thank (+ ...-u)
- At nazda itu av ita és. = I thanked him for his work.
- nazden $=$ thanks, expression of appreciation


## Lesson 2: Getting Acquainted

| Mirad | English |
| :--- | :--- |
| At vàge [ad] et ijtu ata <br> dat Ivan. | I'd like you to meet my friend, Ivan. [Lit: "I'd like <br> that you be acquainted with..."] |
| Ce gla if ijter et. | Very pleased to meet you. [Lit: "It is a great <br> pleasure to..."] |
| Od ce eta dún? | What's your name? |
| Ata dún ce Maria. | My name is Mary. |
| Odmu et tome? | Where do you live? |
| At tome New <br> Yorku/erozáki udma. | I live in New York/two kilometers from here. |
| Et tome idmu ji od? | How long have you lived there? [Lit: "You live there <br> since what?"] |
| At tome ida domu ji alo <br> jabi. | I have lived in that city for 10 years. [Lit: I live in <br> that city since...] |
| Od ce eta és? | What do you do for a living? [Lit: "What is your <br> work?"] |
| At ése ge biktut. À ev et? | I work as a nurse. And you? |
| At eju keé és. | I am currently looking for work. |
| Ev et aé aga tod? | Do you have a big family? |
| Ata tedeti ce odjaga? | How old are your children? [Lit: "What-aged are..."] |
| Gajagat ce ale jaga à <br> gajogat ce ú jaga. | The elder is twelve years old and the younger is <br> nine. [Lit: "...is 12 of age...is 9 of age."] |
| Ev et gè ce tadca (or: <br> tadaá)? | Are you also married? |


| Vo. At ce <br> tadokca/tadónca/tadoá. | No. I'm widowed/divorced/unmarried. [Lit: "mate- <br> lost/mate-separated/mate-less"] |
| :--- | :--- |
| Odmu et tija? | Where were you born? |
| At tija úb udem. | I was born near here. |
| Odju et emkála udmu? | When did you move here. [Lit: "....change <br> location..."] |
| At pua ji e jabi. | I arrived four years ago. [Lit: "...since four years"] |

## Vocabulary Notes

- $\mathbf{i j t e r}=$ to get to know, to become acquainted with, to meet (for the first time) (ijtat acquaintance)
- ifcer/uifcer = to please/be pleased
- tomer = to reside, to live, to make one's home
- éser = to work
- aér = to have
- vàger = to wish, to like to (At vàge --er = I'd like to --)
- dúncer = to be named, to be called
- $\mathbf{~ s e r ~ = ~ t o ~ d o , ~ t o ~ m a k e ~}$
- $\mathbf{k e e r}=$ to seek, to look for $(\mathbf{k a e r}=$ to find, $\mathbf{k o e r}=$ to hide $)$
- tijer $=$ to be born (tujer $=$ to die)
- tadcer $=$ to get married
- tadokcer = to be widowed
- tadòcer = to be unmarried
- emkáler $=$ to relocate, to move $(\mathbf{e m k o ́ l e r}=$ to settle down)
- puer = to arrive (pier = to depart)
- jagcer $=$ to get old, to age $(\mathbf{j o g c e r}=$ to get young)
- dat $=$ friend
- tad $=$ spouse, mate (tàd = wife, tadca married)
- tadokcat $=$ widow $(e r)$
- tadóncat = divore(e)
- tadoát = bachelor/bachelorette
- tedet = offspring, son, daughter, child
- $\boldsymbol{t o d}=$ family
- $\boldsymbol{\operatorname { t o m }}=$ residence, home $=(\boldsymbol{\operatorname { t o m u }}=$ at home $)$
- $\mathbf{d o m}=\operatorname{city}(\mathbf{d o m u}=$ in the city, in town $)$
- és = work (ésu = at work)
- $\mathbf{j a g}=a g e(\mathbf{j a g a}=$ old, $\mathbf{j o g a}=y o u n g)$
- $\mathbf{t i j}=$ birth $(\mathbf{t u j}=$ death, $\mathbf{t e j}=$ life $)$
- dún = name
- job = time
- jab = year ( $\mathbf{j a b i}=$ years, $\mathbf{e} \mathbf{j a b i}$ two years, udjabu this year)
- ej = the present (eju at present, eja present)
- $\mathbf{e m}=$ place, space $(\mathbf{e m k a ́ e r}$ to relocate $)$
- jagat = young person (gajagat = cadet, younger one)
- jogat = old person $($ gajogat $=$ elder $)$
- if = pleasure (Ca if. It was a pleasure.)
- $\mathbf{j a}=$ before $(\mathbf{j o}=$ after, $\mathbf{j e}=$ during $)$
- $\mathbf{j a} \mathbf{e j}=a g o$ [Lit: before the present]
- $\mathbf{j i}=\operatorname{since}(\mathbf{j u}=$ until)
- $\mathbf{j i} \mathbf{~ o d}=$ since when, for how long ( $\mathbf{j i} \mathbf{e} \mathbf{~ j a b i}=$ for two years)
- ga $=$ more $(\mathbf{g o}=$ less, $\mathbf{g e}=$ equal $)$
- gla = very, much, many $(\mathbf{g l o}=$ little, few, slightly $)$
- úb = near to (íb $=$ far from, úbem vicinity)
- $\mathbf{b u}=$ to $(\mathbf{b i}=$ from $)$
- udem = this place $(\mathbf{u d}(\mathbf{e}) \mathbf{m u}=$ here, $\mathbf{u d}(\mathbf{e}) \mathbf{m a}$ from here, $\mathbf{o d}(\mathbf{e}) \mathbf{m u}$ ? $=$ where?
- $\mathbf{i d e m}=$ that place $(\mathbf{i d}(\mathbf{e}) \mathbf{m u}=$ there, $\mathbf{i d}(\mathbf{e}) \mathbf{m a}$ from there $)$
- udjob = the present ( $\mathbf{u d j}(\mathbf{o b}) \mathbf{u}=$ now, $\mathbf{o d j}(\mathbf{o b}) \mathbf{u}$ ? when?)
- $\mathbf{i d j o b}=$ that time $(\mathbf{i d j}(\mathbf{o b}) \mathbf{u}=$ then $\mathbf{~} \mathbf{j} \mathbf{i d}$ since then $)$


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    treic odor
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    fiteic fragrance
    futeic stink
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    teiceucer to snore
    teibzéc nostril
    teob cheek
    zeteob cheekbone
    teobéb beard
    teobébàa bearded
    teobébòa beardless
    teub mouth
    teuba oral
    teubil saliva
    teubiler to salivate
    ózteuber to spit
    teubíjer to yawn
    ézteuber to swallow
    teubob lip
    teuboz smile
    teuboc kiss
    teuboba labial
    teud shout
    teuder to scream
    teuc taste
    teucer to taste
    fiteuca delicious
    futeuca nasty-tasting
    teumib palate
    teumiba palatal
    teubéb mustache
    teubébàa mustachioed
    teubab tongue
    teubaba lingual
    teubaber to lick
    éztèbaber to suck
    teubeb gum

[^2]:    tikib pancreas
    tikiba pancreatic
    tikub instestine
    tikuba instestinal
    tikubil feces
    tikubila fecal
    tikubiler to defecate
    tikubuj anus
    tikubuja anal
    tikubujbok proctitis
    tub arm
    tuba brachial
    tuab shoulder
    tueb upper arm
    tuib elbow
    tuiber to elbow
    tuub forearm
    tuób wrist
    tuáb hand
    tuába manual
    tuácer to handle
    tuábier to grasp
    tuábuer to lend a hand
    tuúpúner to slap
    ébtuáber to clasp/shake hands
    tuápaner to clap/applaud
    tuálpaner to massage/knead
    tuásiner to sign
    tuádotsiner to wave [hello/goodbye]
    tuáf glove
    tuáfém glove compartment
    tuáfud glover
    tuéb fist
    tuépaner to pound
    tuúb finger
    tuúba digital
    atuúb thumb
    etuúb index
    etuúber to point
    ituúb middle finger
    utuúb ring finger
    ótuúb little finger
    tuúcer to feel
    tuúca tactile
    tuúceá palpable
    tuúpaner to tap
    tuúdrer to type
    tuúdrar typewriter, keyboard
    tuúbuj finger tip

[^3]:    tobina humanistic
    tobinat humanist
    iftoba humanitarian
    iftoban humanitarianism
    tobán mankind
    tobéna human
    toob male
    tooba masculine
    otoobaser to emasculate
    tooban masculinity
    toòba feminine
    toòban femininity
    tooc sex
    tooca sexual
    toocan sexuality
    otooca asexual
    entooca bisexual
    hátooca pansexual
    getooca homosexual
    getoocan homosexuality
    getoocat homosexual [person]
    tos instinct
    tosa instinctual
    toséna instintive
    top soul
    toptun psychology
    toptuna psychological
    toptut psychologist
    topéna animate
    topénaser to animate
    topénasen animation
    otopéna inanimate
    topòa soulless
    tòb woman
    tòba female
    eóntòba effeminate, quasi-female
    tòbéna feminine
    otobéna unwomanly
    tòbet girl
    tòbeténa girlish
    tòbetan girlhood
    tòbán womankind
    tobob child
    toboba infantile
    toboban infancy
    tobéna childish
    tobobòa childless
    tobobikam child care center
    tobet boy

