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## Understanding Loglan

Rice, Stephen Leon, M.A.<br>University of Alaska Fairbanks, 1994

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# UNDERSTANDING LOGLAN 

## A

THESIS

Presented to the Faculty<br>of the University of Alaska Fairbanks<br>in Partial Fulfillment of the Requirements<br>for the Degree of

## MASTER OF ARTS

By
Stephen L. Rice, B.A.
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## UNDERSTANDING LOGLAN

## By

Stephen L. Rice

## RECOMMENDED:



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APPROVED:



#### Abstract

Loglan is a language designed to help test Whorf's hypothesis that language shapes thought. Specifically, Loglan should encourage more creative and logical thought in its users. Such future users will need a readable textbook of the language; that is the purpose of the present work.


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## Lo buksatci

Introduction

Pa lo Cirpai: Peu la Loglan, ze levi bukcu<br>Before the Lessons: About Loglan and this book

## Ri Kenti je la Loglan

Questions About Loglan

If you've never heard of Loglan, especially if you just picked this book up out of curiosity, you will want to know what Loglan is, what it's like, and why you would benefit from learning it.

## La Loglan, He? What is Loglan?

An Experimental Language. Professor James Cooke Brown, a sociologist with strong interests in anthropology and philosophy, began Loglan in the late 1950s to test the idea that language influences the way we look at the world-our "world view." Loglan's world view is based on symbolic logic (Loglan comes from logical language), though it also welcomes other systems of thought.

A Human Language. Many people think that Loglan is a computer language. Its grammar has been programmed into some popular home computers (Macintosh and PC-compatible), and teaching programs also exist, but Loglan is a human language: you can speak and write it.

A Designed Language. Unlike other constructed languages, such as Esperanto, Loglan has been engineered based on linguistic data and tests. It was designed for ease of learning as well as for logic, so even if you have trouble learning languages, Loglan probably won't prove difficult.

## Hu Nu Katli la Loglan? What is Loglan Like?

Loglan is an isolating language, much like English. That means that once you've learned a word, you don't have to worry about changing its form. Even in English, you have to remember to add -ed to a verb to make it refer to the past, and -s to nouns to make them plural. Also, some English verbs and nouns have irregular forms.

| English Verbs | $\underline{\text { Loglan }}$ | English Nouns | $\underline{\text { Loglan }}$ |
| :--- | :--- | :--- | :--- | :--- |
| walk | dzoru | (a) thing | ne bekti |
| walked | pa dzoru | things | ro bekti |
|  |  |  |  |
| see | vizka | (a) child | ne nilboi |
| saw | pa vizka | children | ro nilboi |

[The Loglan words are pronounced as in English, except the vowels, which are pronounced as in father, bet, machine, code, and rune. The accent is on the next-to-last syllable: DZOru, NLLboi.]

Loglan's vocabulary helps you learn. You can tell by looking at a word whether it gives grammatical information (as pa, ne, and ro do in the preceding example), refers to a complete concept (as dzoru, vizka, bekti, and nilboi do), or names an individual (as la

Loglan names Loglan and la Stiv names me). There are several rules of thumb which you'll find useful for remembering the grammar words, such as the fact that all descriptors (words like English the) begin with I. The basic concept-words, on the other hand, are derived by blending words from a number of languages, including English. While dzoru will probably be unfamiliar to you (it's based on Chinese and Japanese), seeing work in tURKa, go in GOdzi, and visible in VIZka shouldn't be difficult.

Loglan utterances are uniquely resolvable. This means that once you learn a few rules, you can figure out where words begin and end. If you talk to another Loglanist, you will miss a few words here and there, but you should be able to hear all of the individual words. In other languages, the words you know usually wind up buried in a flood of unknown noises; at least in Loglan, you stand a good chance of picking out the familiar material. This book concentrates on "understanding Loglan," that is, on appreciating its fundamental, everyday concepts. For this reason, although I'll give the basics of resolution, I won't go into all the fine points. Instead, I'll cover as much as you're likely to need for ordinary conversation.

Loglan appeals to intuition as well as to logic. Many people admire the artistry of Chinese and Japanese words, which are based on intuitively understood metaphorical images. Unfortunately, the writing systems and the number of words and roots which sound alike prevent most students from actively enjoying these words and their construction. Loglan has the same richness of metaphor, and is considerably easier to learn. So if you like "earth-edge" (telbie) for horizon, or "smoke-breather" (smarue) for smoker, you'll probably feel at home with Loglan's vocabulary.

Loglan requires you to say what you mean and to make distinctions which are optional or non-existent in English. For example, if you say, La Djan, corta namci (John is a short name), you will be taken to mean that someone named "John" is a short name. The more usual meaning of the English sentence is Liu Djan, corta namci ([The word] 'John' is a short name). Learning to think about what you mean is one of the desirable effects of learning Loglan, even though it will slow you down at first.

## Moihu Mi Selfatru? Why Should I Bother?

The number of Loglan-speakers is quite small. You won't go on a trip to Loglandias (the fabled Loglandic homeland) anytime soon, though some futurists have proposed Loglan as the language of the Martian colonies, whenever they appear. (In fact, most Logli, or Loglan-speakers, use electronic mail to "talk" to each other. An essay in this book, Hu Sitfa La Loglandias? (Where is Loglandias?), addresses the computerized nature of Loglan and its speakers.) Its body of literature is also small, mostly short stories and poems, some original, some translated. So why bother to learn Loglan? Because more than any other constructed language-and for that maiter, most natural languages other than English-Loglan has something for everybody.

Language study usually appeals only to linguists, travellers, and those with an artistic or poetic bent. Loglan does so too, but it also has something to offer logically and scientifically inclined people: training in precise, logical thought. Beyond this, some feel that Loglan may prove useful for communicating with computers. Indeed, about a third of all Loglanists are involved in computer science; most of them are researching artificial intelligence and related subjects.

What about people who like to travel? What if you're looking for an education? Loglan represents not just a new country, but a new world: It will turn your present universe upside- down. It should also enable you to experience other world views more directly. Whether you're a teacher or a student, it seems a trip worth taking.

For writers and poets the appeal is even more obvious: Loglan represents a blank slate, waiting for pioneers to create new kinds of literature, to coin new words and metaphors. Its combination of the logical and the intuitive will challenge the artistic soul.

Why bother? Why indeed? If you want to explore a new world, or to better appreciate your old one-if you are willing to try, or at least to have a look-read on.

## Le Danci je levi bukcu

The Format of this book

Each lesson begins with Lo Mipli Steti (Example Sentences), which introduces the main topic. These sentences will sometimes form a dialog, though often I'll use simple sentences to demonstrate a feature more efficiently. Literal translations should help you understand new concepts and constructions. After you've had time to get used to new material, though, it will be translated by shorter, more natural wording, so you can concentrate on the next subject. Most sentences will be followed by one or more numbers. These refer to the notes in the next section which explain the grammatical and logical questions the sentences bring up. Lopo Lengu Klimao (Language Explanations) tells how the sentences work and gives you a chance to produce some sentences of your own. In each lesson after the third, two other sections appear. Lopo Purmao (Word-making) helps enlarge your vocabulary. Then Lo Nurvia Logla (Visible Loglan)
provides a more detailed sample of the language, followed by Lo Kenti (Questions) about the reading. Finally, every lesson ends with a summary of the grammar and Lopo Lenbatmi Cirduo (Translation Exercises).

Lo Mipli Steti will introduce mostly grammatical features and Little Words; Lopo Purmao and Lo Nurvia Logla will concentrate on vocabulary. There are two reasons for this. First, you will be able to focus on learning one type of thing (grammar or vocabulary) at a time. Second, if you're primarily interested in understanding the concepts, not in learning the language, you should be able to keep track of the ideas without mastering much vocabulary. (This is a shallow approach, but one I'm well aware some will take. If you must learn only a bit of Loglan, learn it well; if you misrepresent Loglan, you may interfere with its experimental goals.) When you finish a section, review it to make sure you've mastered the points it presents.

## Lopo Brecea

Preparation

The following material is an overview of Loglan pronunciation and word classes. Don't try to memorize it all now; just leave a bookmark here and re-read this from time to time.

## Lopo Soncue

Pronunciation

Consonants:
$\mathbf{b}, \mathbf{d}, \mathbf{f}, \mathbf{g}, \mathbf{h}, \mathbf{k}, \mathbf{l}, \mathbf{m}, \mathbf{n}, \mathbf{p}, \mathbf{r}, \mathbf{s}, \mathbf{t}, \mathbf{v}, \mathbf{z}$ as in English.
$\mathbf{c}$ is like English sh in sheep. (This would be written cip in Loglan; ch as in cheap is spelled tc: tcip.)
$\mathbf{j}$ as in English measure (mejr). (English $j$ in jelly is spelled dj: djeli.)

The following sounds occur rarely, and then only in names:
q as English th in theory (qiri) (NOT as in the)
$\mathbf{x}$ as ch in Scottish loch (lox) and German Bach (Bax) (This is a throat-clearing sound produced by positioning your mouth for a $k$, then making a strong $h$-sound instead. About the only place you'll encounter this letter is in the word Xaiykre (X-ray).)

There are no silent letters. $\mathbf{H}$ is always pronounced separately; $\mathbf{c h}, \mathbf{p h}$, $\mathbf{s h}$, and th represent two sounds each, as in English wash-house (uachaos), mop-head (maphed), mis-hear (mishir), and sweetheart (suithart). G and sare always pronounced as in go (go) and say (sei), never as in gem (djem) and rose (roz). $\mathbf{N g}$ is pronounced as in finger (fingr), that is, as an $n g$-sound followed by a normal $g$.

Vowels:
a as in call (kal) or preferably as in Spanish casa (kasa)
e as in bet (bet)
i as in machine (macin) (before vowels, may be pronounced as $y$ in yard (iard))
0 as in code (kod)
$\mathbf{u}$ as in rune (run) (before vowels, may be pronounced as $w$ in way (uei))
y as in sofa (sofy) or but (byt)

The following sound, like $\mathbf{q}$ and x , above, is rare and restricted to names:
$\mathbf{w}$ as in French une (Position your mouth to make a $\mathbf{u}$, then make an i instead.)

These are pure or continental vowels: don't put a $y$ sound after $e$ and $i$, or a $w$ after $o$ and $\mathbf{u}$. Cut the vowels short to begin with, stopping before you add the glides ( $y$ and $w$ ) which are characteristics of English. The one exception is that e before a vowel will have a $y$ glide: mea (as in mea culpa) is pronounced may-ah.

When $\mathbf{I}, \mathbf{m}, \mathbf{n}$, and $\mathbf{r}$ aren't next to a vowel (that is, when they're between consonants or after a consonant at the end of a word) and when they are doubled, they are pronounced vocalically, as in English bottle (botl), bottom (batm), button (bytn), and carver (karvr). An example of a doubled letter would be retrroviri (retrovirus), pronounced re-tr-o-V/-ri. Without doubling, this would be pronounced re-tro-VI-ri.

Diphthongs:
ai as in aisle (ail)
ei as in eight (eit)
oi as in noise (noiz)
ao as ou in house (haos) or as in Mao (Mao)

All other vowel combinations are pronounced separately, except for $\mathbf{i}$ - and $\mathbf{u}$-groups, where $i$ and $u$ may be pronounced as $y$ and $w$. Be especially careful in pronouncing double vowels not to put a break between them: saa should be pronounced SAa or saA, not *SA,a or *sa,A (the asterisk means that these forms are ungrammatical). You must accent the first or second vowel of a double-vowel pair, but let the vowels glide together
without interruption. It's like stretching a syllable in a song by giving it two beats instead of just one.

If you want to break a diphthong into two separate sounds, put a comma between the vowels. The name Lois, for example, would be written Lo, is in Loglan.

## Le Logla Nu Letra

## The Loglan Alphabet

It's more important to know the alphabet in Loglan than it is in most languages, but the names of the letters are easy to remember.

For Lowercase Letters:
Consonants add -ei: bei, cei, dei (b, c, d)
Vowels add -si: asi, esi, isi (a, e, i)

For Uppercase Letters:
Consonants add -ai: Bai, Cai, Xai (B, C, X-remember Xaiykre?)
Vowels add -ma: Ama, Ema, Ima (A, E, I)

Note that upper- and lowercase letters are different in Loglan.

## Lo Purda Klesi

Word Classes

There are three types of words in Loglan: Little Words, predicate words, and names.

Little Words provide grammatical information: number, tense, etc. The English equivalents are numbers, pronouns, conjunctions, and some prepositions and adverbs. Simple Little Words consist of one or two vowels (e and; ei Is it true that...?) or a consonant followed by one or two vowels (mi $I$; nia while/during).

You can accent Little Words or not, as you please. However, if you accent a Little Word right before a predicate, you have to pause between them: levi (or LEvi) BUKcu (this book) may be pronounced pauselessly, but leVI, BUKcu must have a pause between the two words.

You can pick out Little Words in another Loglanist's speech because they end in a vowel and have no consonant clusters (see predicate words, below).

Predicate words are content-words; they refer to a complete concept, and are roughly like the nouns, verbs, adjectives, and adverbs of English. All predicate words contain at least one consonant cluster (two or more consonants placed together, as st, bl, and nd), end in a vowel, and are accented on the next-to-last syllable. Examples: LOGla (part of the Loglan language), breCEa (get ready), and atHOmi (atom). (The h was inserted in atom to create a consonant cluster.) Sometimes -y - is inserted between consonants to make them easier to hear correctly, as in ficyjanto goes fishing for_. (Try saying that without the $-\mathrm{y}-$ !) It is always used to avoid double consonants (as in mekykiu is an
eye-doctor treating _for _ with _). In any case, $\mathbf{- y}$-is unaccented, so this last word is pronounced either MEK-uh-kyoo or mek-uh-KEE-oo, depending on what you do with the i. The consonant clusters in these two words are cj (ficyjanto) and $\mathbf{k k}$ (mekykiu): the -y-doesn't break up clusters, it just makes them easier to pronounce.

You can always tell when you hear a predicate word in spesch because it will begin with a consonant cluster (brecea), with a syllable which ends in a consonant (athomi, mekykiu), or with a consonant followed by one or two vowels and a consonant cluster (LOgla, saadja). (There is no "correct" way to divide a word such as logla into syllables; you may say LO-gla or LOG-la. This doesn't affect resolution: the first pronunciation resolves like saadja and the second like athomi, by the rules given above.) Note that $\mathbf{- y}$ counts as a consonant when you're resolving words: in more advanced Loglan, you will encounter Little Words prefixed to predicates with -y-, as in guypli (someone who uses gu instead of pauses).

In any event, the predicate word will end on the syllable after the accent. This is why you have to pause between a stressed little word and a predicate: *leVIbreCEa would be heard as le *vibre cea; leVI, breCEa resolves easily, and means this one who is getting ready. (The asterisk [*] marks an ungrammatical expression or a non-existent word.) LevibreCEa also resolves uniquely as levi breCEa.
(Knowing that levi is one word, not two, is a trivial matter: le forms compounds with most little words. However, there is no difference in meaning; it's just one of those habits which speakers impose on their language. The number of such rules is small, and we'll get around to all of them eventually.)

The basic predicate words (primitives) of Loglan have five letters, and are like brudi (brother) or matma (mother) CCVCV or CVCCV, where C is a consonant and V is a vowel. These words are derived from English and other languages, so most of the time you'll find something you can recognize in each primitive.

Names are just that: names of particular people, places, and things. Many names are borrowed from other languages; some are created on the spot within Loglan. Names end in a consonant, and are always followed by a pause in speech or either a comma or period (at the end of a sentence, of course) in writing. If a name ends in a vowel (Joe), add -s (Djos). Examples: Djan (John), Anas (Anna).

Names usually are accented on the next-to-last syllable, just like predicate words. If you want to place the accent elsewhere, you may do so, but when writing the name, place an apostrophe after the accented vowel or an acute accent over the vowel, as in Ua'cintyn/Uácintyn (Washington), Pari's/Paris (Paris). This last name would be pronounced in the French way (pari), but since all names must end in a consonant, we add an -s. Note also Romas (Rome) and Mari,as (Maria-the comma prevents this from becoming Marya by separating the $\mathbf{i}$ and the a). Loglan follows the person's or area's own pronunciation as much as possible.

When someone pauses after a consonant in Loglan, it means you've just heard a name go by. More helpfully, names always follow la, hoi, hue, or a pause. Predicates may be used as names, but if so, they always follow la or hoi, and end with a pause, so you shouldn't have trouble picking them out.

## Lopo Taksai

Pause

A summary of when you have to pause in speech or put a comma in writing:

1. After a name: La Djein, bi le kicmu (Jane is the doctor).
2. Between an accented little word and a predicate: leVI, bukcu (THIS book).
3. Before words which begin with a vowel (this pause is not normally written): la[,] Erik.
4. Before certain conjunctions: Ridle, e cirna (Read and learn). (I'll explain this later, when it will actually make sense.)

## Lesson 1: Fill in the Blank

## Lo Mipli Steti

Example Sentences
(See the section on Pronunciation on pages 6-8.)

1. Mi mrenu ${ }^{1}$

I am-a-man.
2. Tu humni ${ }^{2.3}$

You are-human.
3. Tu takna ${ }^{4}$ mi (ba) ${ }^{5}$

You talk-to me [about] (something).
4. Mitakna ba ${ }^{\mathbf{6}}$ ti

I talk-to someone [about] this-one.
5. Mugodzi ta ti

We go-to that-one [from] this-one.
You and I go there from here.

| 6. $\mathbf{E i}^{7}$ | tu | takna | mi? |
| :--- | :--- | :--- | :--- |
| Is-it-the-case-that | you | talk-to | me? |

Do you talk to me?
7. Ia, mi takna
Certainly, 1 talk.
8. Ei tu pa takna?

Is it the case that you before talk[ed]?
Did you talk before?
9. No, mi pa takna

It's-not-the-case-that I before talk[ed].
(No,) I didn't talk before.
10. Tu favi takna

You will-here talk.
11. Ta he? ${ }^{9}$

That is-/does-what?
What is that? What does that do?
12. Ta humni

That is-human/is-a-human-being.
13. Ei ba vi bukcu?

Is it the case that something here is-a-book?
Is there a book here?
14. la, ba bukcu vi.

Certainly something is-a-book here.

## Lona Cninu Purda

## New Words

(See sections on Little Words and predicate words on page 10.)

| Predicate words (Accented on second-to-last syllable) | Clue words |
| :--- | :--- |
| bukcu _ is a book about _ by author _ | (book [BUK]) |
| godzi _ goes to _ from _ by/over route _ | (go [GO]) |
| humni _ is human/a human being $^{\text {mrenu _ is a man, an adult male human being }}$ | (humanity [HiUMeNIti]) |
|  | (men [MEN]; Sp hombre |
| takna _ talks to _ about _ | [oMbRE]) |
| (talk [TAK]) |  |

Little Words
Arguments
mi $\quad$ I/me
tu you
mu you and $\mathrm{I} / \mathrm{me} \quad$ (a mixture of mi and tu )
ti this/these one(s) Note that these are used alone, not in front
ta that/those one(s) of another word, as in this book or that doctor.
ba something x

Miscellaneous
ia certainly [it's true that...]
ei is it the case that...?
he is/does what?
fa will, shall, after, later
na now
no it is not the case that...
pa before, earlier
here

# Lopo Lengu Klimao 

Language Explanations

Predicates are at the heart of most Loglan utterances: they tell what is being done. In the first sentence, I claim to be a man. In the second, I claim that you are human (I suppose you are).

Notice that predicates have blanks: _is a man, _is human, etc. The blanks are filled in with words called arguments. Each predicate is a blueprint of a complete sentence or thought. The predicate shows what is happening; the arguments indicate who or what is involved. If you stick with simple sentences, speaking Loglan is just a matter of filling in the blanks.

## Notes:

1. The form of Loglan predicate words doesn't change according to how you fill in the blanks. The verbs in the English translations of the predicates (is, goes, gives, talks) are in the third person: he/she/it is/goes/gives/talks. This is only how they are defined, however; humni, for example, remains the same no matter how you fill in the blank:
Mi humni I am human.
Mu humni We are human (beings).
Tu humni You are human.
Ti humni This one is human. These ones are human. (This depends on how many people ti refers to.)
2. While Loglan can make the singular/plural distinction, it often does not. In this it follows languages such as Chinese and Japanese. We won't cover the plural for several lessons, so you should have enough time to learn to think like a Logli rather than like an English-speaker. Of course, you may transfer your English speech habits to Loglan, but it is stylistically awkward to do so.
3. There is no noun/verb/adjective distinction in Loglan. Humni means _is human (adjective) or _is a human being (noun). As far as Loglan is concerned, they are the same thing. Likewise takna means_talksis a talker to _about _. This probably seems trivial to you now, but remember it: it is one of the basic differences between Loglan and English.
4. No prepositions are necessary. This is because you're just filling in the blanks. Takna means _talks to _ about _; you don't have to say to and about in Loglan, because they are
already included in the meaning of the predicate and stand outside of the blanks. This greatly simplifies Loglan. One of the hardest tasks for anyone learning a language is remembering which preposition to use.
5. Don't worry about filling in all the blanks (see sentences (3) and (4) at the beginning of the lesson). It's usually a good idea to do so, but if it would be awkward or too long-or if you simply don't know what to put-leave it out! Tu takna means simply You talk/are a talker. If you do leave a blank, though, don't put anything else after it. Mi takna _ti will be heard as Mi takna ti _: I talk to this [person]. Also, you will need to fill in the first blank; as we'll see in the next lesson, a predicate without its first argument is a command: Takna! (Talk!).
6. If you want to leave a blank and continue with the predicate (as in sentence (4)), you'll have to fill the blank with something, and that's just what the little word ba means: something or someone. So you could say Mi takna ba ti (I talk to someone about this.). There are four words in this series (ba, be, bo, bu); fill in the first blank with ba, the second with be, and so on. For example, if you're really in a vague mood, you can say $\mathbf{B a}$ takna be bo: Someone talks to someone about someone/thing. Ba and kin are called non-designating variables because they don't refer to a specific person or thing, unlike mi, $\mathbf{t u}, \mathbf{m u}, \mathbf{t i}$, and $\mathbf{t a}$, which do refer to someone or something in particular.

This is also an easy way to handle passive constructions: It is talked about becomes Someone talks to someone about it (Ba takna be ti). We'll find a quicker way to do this in the next lesson.
7. Sticking ei in an utterance makes it a question: Ei tu takna mi? Are you talking to $m e$ ? Answer with No, (It's not the case [that]) or Ia (Certainly it's true [that]): (No,/Ia) mi takna tu (It's not the case that/Certainly it's true that) I talk to you. (Note: the comma after No makes the no apply to the whole sentence; without the comma, no would negate only the next word: No mi takna tu I'm not the one talking to you. For now, use the comma.)

Although you can put ei anywhere in a sentence, most Logli place it at the beginning.
8. Tense is optional in Loglan, as it is in several other languages. If you don't specify when something happens, it's assumed that it either has happened, is happening, or will happen. To be more specific, put na (now), pa (before, past, previously), or fa (after, future, later) in front of the predicate:

Mi na takna I am now talking.
Mi pa takna I was talking/I talked.
Mi fa takna I will talk.

You can tell where something happens, as well as when. The little words vi (here), va (there), vu (yonder, over there, far away) work like the tense words:

Mi vi takna I talk here.
Mi va takna I talk there.
Mi vu takna I talk over there.
(The last two sentences may seem unreasonable: How can I now be speaking anywhere but here? Even ignoring the possibility of a recording or voice transmission, the sentences are still understandable, because there is no indication of time. It may be that I did talk there or will talk there.)

These words are called inflectors. Like ei, they can go anywhere in the sentence, though for now you should put them either in front of the predicate or at the end of the sentence (Mi takna na/vi). You can mix time and space words in any order, though if you place two or more side by side, you should write them as a single word; sentence (10) could also be Tu vifa takna or Tu takna favi. The slight difference in emphasis is hard to convey in English.
9. He asks for a claim about something: Ta he? Make a claim about what that is or does. Although it looks like a Little Word, not a predicate word, grammatically he is a predicate; you can do anything with it that you can do with any other predicate. Note: Tu he? (What are you?) is often used for How are you? In first meetings, however, it could easily mean What do you do (for a living)?

In the next lesson, you'll find out how to give orders and express your attitudes. (Ui! Whee!)

## Summary: Lesson 1

1. Predicates make claims about the world. They are like patterns for complete sentences with blanks for the people/objects referred to.
2. Arguments fill in a predicate's blanks.
3. There is no noun/adjective/verb distinction in Loglan. Other obligatory features of English, such as plural forms, may be avoided.
4. You don't have to fill in all of a predicate's blanks, but you must end the sentence after the first unfilled blank. You can skip a blank by filling it with one of the non-designating variables ba, be, bo, or bu.
5. An utterance is made into a question by putting ei in it.
6. You may specify when the claim is true by using pa (past), na (present), or fa (future) either before the predicate or at the end of the sentence. You may also localize the claim with vi (here), va (there), or vu (yonder). These words are called inflectors. When you use inflectors side by side, write them as a single word.
7. He is an interrogative predicate, acting as a blank for you to fill in.

## Lo Cninu Purda

(This is a list of all the vocabulary for this chapter, including both new words and the ones given at the beginning of the chapter. This section will be absorbed into the reading vocabulary from Lesson 3 on.)

Predicate words
bukcu _ is a book about _ by author _
Clue words
cirna _ learns subject _ from source _
(book [BUK])
(learn [IRN])

| ditca _ teaches subject _ to _ | (each [tITC]) |
| :---: | :---: |
| durzo _ does _ to _ | (do [DU]) |
| fumna _ is a woman | (woman [uUMN]; feminine |
|  | [FeMiNin]) |
| godzi _ goes to _from _ over route _ | (go [GO]) |
| humni _ is human/a human being | (humanity [HiUMeNIti]) |
| madzo _ makes _ from material(s) _ | (made [MeiD]) |
| mrenu _ is a man, an adult male human being | (men [MEN]; Sp hombre [0MbRE]) |
| ridle _ reads _ from/in/on _ (a book, sign, etc.) | (read [RID]; legible [LEdjibl]) |
| takna _ talks to _ about _ | (talk [TAK]) |

Little Words
Arguments
mi $\quad \mathrm{I} / \mathrm{me}$
tu you
mu you and I/me (a mixture of mi and tu)
ti this/these one(s) Note that these are used alone, not in front
ta that/those one(s) of another word, as in this book or that doctor.
ba/be/bo/bu something $x / y / z / h$

Miscellaneous
ia certainly [it's true that...]
ei is it the case that...?
he is/does what?
fa will, shall, after, later
na now
no it is not the case that...
pa before, earlier
va there (by you)
vi here
vu yonder, over there, far away

## Lopo Lenbatmi Cirduo <br> Translation Exercises

Cover the right side with a card; when you're through translating into English, go back and translate into Loglan. (If you have an above-average memory, and this seems too easy, try switching after 10.)

1. Mi mrenu.
2. Ei tu fumna?
3. Mu humni.
4. Mi ditca ti tu.
5. Ei tu pa cirna ti?
6. No, mi fa takna ba ta.
7. Ba madzo be ti.
8. Mi fa durzo ti.
9. Ei tu na ridle ti?
10. Ia mi ridle ti.
11. Ei tu ditca?
12. No, mi ditca.
13. Tu he?

I'm a man.
Are you a woman?
We are human.
I teach this to you.
Did you learn this?
I won't talk to anyone about that.
Someone makes something out of this.
I will do this.
Are you now reading this?
Certainly, I read it.
Are you a teacher?
It is not the case that I'm a teacher.
What are you?

## 14. Mi cirna.

15. Ei ba ditca vu?
16. No, ba ditca vu.
17. Mi ridle ta fa.
18. Ta he?
19. Ta bukcu.
20. Ei ta bukcu tu?
21. Ti bukcu ba mi.

I'm a learner/student.
Is there a teacher over there?
No, there isn't a teacher over there.
I [will] read that later.
What is that?
[It's] A book.
Is that a book about you?
This is a book about something by me.

## Lesson 2: Command Performances

## Lo Mipli Steti

1. Ridle ${ }^{1}$ ti!

Read this!
2. Ridle ti, eo ${ }^{\mathbf{2}}$.

Read this, please.
3. $\mathbf{E o}^{\mathbf{3}} \quad \mathbf{m i}$ ridle ta?

Please, [may] I read that?
4. Ea $^{4}$ [mu] godzi.

Let's [you and I] go.
5. $\mathrm{Ai}^{\mathbf{5}} \quad$ no, ${ }^{6} \mathrm{mi}$ durzo ti.

I-intend-that not I do this.
I refuse to do this.

| 6. | $\mathbf{A i}$ | $[\mathbf{t u}]^{7}$ | logla $^{8}$ | cutse! |
| :--- | :--- | :--- | :--- | :--- |
| I-intend-that | [you] | Loglan | say! |  |
|  | I intend you to speak | Loglan! |  |  |


| 7. | $\mathbf{N o}{ }^{\mathbf{9}}$ | takna | $\mathbf{v a}^{\mathbf{1 0}}$ |
| :--- | :--- | :--- | :--- |
|  | mi! |  |  |
|  | Don't] | talk | around/near |

8. No takna va $\mathbf{g u}^{11} \mathbf{m i}$ !
[Don't] talk there [,] [to] me!
9. Durzo ta fa ${ }^{\mathbf{1 2} \text { ! }}$

Do that later!

10 Eo
$n \mathbf{n}^{13}$
takna
mi.

Please [switch first two blanks] be-talked-to-by me.
Please let me talk to you.

## Lona Cninu Purda

Predicate words
Clue words
cutse _ says _ to _
(say [SEi])
gudbi _ is better than _for/in _
(good [GUD])
logla _ is a part/example of the Loglan language

## Little Words

ai I intend that _ (Strong intention indicator; see note 5.)
ea Let's/I suggest that we _ (See note 4.)
eo please (See notes 2 and 3.)
gu , (spoken comma; see note 11.)
nu [switches first and second blanks] (See note 13.)
oa it is necessary that __ must _ (Strong obligation indicator; see note 5.)

## Lopo Lengu Klimao

## Notes:

1. When you leave off the first argument of a predicate, the result is a command. That's all there is to it. Notice, however, that commands are not claims in most logics. (Think about it: is Read this! true or false? The person you're talking to may obey or not without affecting the fact that you gave the order.)
2. Eo (please) softens commands. This word is like ei (note the resemblance) in that it can be placed anywhere in an utterance without changing the general meaning. Such words are called free modifiers. They comment on the word they follow, or on the sentence as a whole if they are placed at the beginning. Except for gu and the passive markers, all little words introduced in this lesson are free modifiers.
3. Eo may be used in a regular sentence to ask permission: May $\mathrm{I} / \mathrm{he} /$ she/etc.?
4. Ea suggests doing something. It implies mu as the first argument. Including mu (Ea mu godzi) is slightly more polite, because you are, in effect, ordering yourself as well as your audience. If you leave the mu out, you imply that you are going to act, and your listener can join in or be left out. Although you can technically put ea anywhere in the utterance, it's usually best to put it first; this clearly announces your intentions.
5. Words like ai indicate your attitude toward an event. Note the difference between reporting an intention (It is true that I intend you to do this.) and merely expressing your attitude toward an event (You shall (I insist!) do this.). There are three groups of attitude indicators in Loglan, but they are systematically arranged for ease of learning. The
a-series shows intention; the i-series, likelihood; and the 0 -series, obligation. Within these three groups, there are four levels (from strongest to weakest): $\mathbf{- a}, \mathbf{- 0}, \mathbf{- i}$, and $\mathbf{- u}$. (The $\mathbf{a}-$ and $\mathbf{o}$ - series are slightly irregular. To avoid *aa and *oo, ai, ae, and oe were introduced.)

| a- (intention) | i- (conviction) | o- (obligation) |
| :--- | :--- | :--- |
| ai I intend to | ia certainly | oa I/you must |
| ao I want to | io probably | oe I/you should |
| ae I hope to | ii perhaps | oi I/you may |
| au I don't care | iu Who knows? | ou it doesn't matter |

Ae translates the "ungrammatical" use of hopefully: Ae ta fa ridle ti. Hopefully [It is hoped that] that one will read this. When you're stuck for a word in the middle of a conversation, you can use one of these words as an $u h . .$. Be careful which word you choose; $i$ is usually safe.
6. Ai no, (note the comma) means I intend not, I refuse!-but only at the beginning of an utterance. As mentioned in note 2 , above, free modifiers such as ai modify whatever they follow, or the utterance as a whole if they are placed before it. If you want to show refusal in a negative sentence you have already begun, place ai after the word you want to underline: No, tu ai fa godzi You (I insist!) will not go. I refuse to let you go. (I may let someone else go, but not you.) This effect is often best translated in English by simple underlining or spoken stress.

Exercise 2.1 Translate from Loglan to English and back again. Note which words are being emphasized.

1. Ii ta kamla
2. Mi eo godzi? Oi.
3. No, mi durzo ta eo. Oi no.
4. Mi godzi na eo?
5. Tu na au godzi.
6. Oa cirna ti!
7. Oa no durzo ta!

Perhaps that one comes.
May I go? Yes. [You may.]
May I not do that? You are allowed not to.
May I go now, please?
Who cares if you go now? It doesn't matter if you go now.

You must learn this!
You must not do that!
7. The difference between Ai logla cutse! and Ai tu logla cutse! is one of degree: In the first, you're ordering someone to obey, while in the second, you're saying that you'll see to it that your prediction comes true.
8. Placing two or more predicates together produces a new predicate. Thus,

```
cutse _ says _ to _
logla cutse _"Loglan-says"_to _(speaks/says _ to _ in Loglan)
ridle _reads _ from/in/on _
bukcu ridle _"book-reads"_ from/in/on [book] _
```

Note that the place structure (the order and meaning of the blanks) follows that of the last predicate word (cutse and ridle).
9. Placing No in front of a command creates a negative command: Don't ! As we saw in Lesson 1, this is also the way to negate a regular sentence: No, mi pa cutse ta (It is not the case that I said that.) The pause comma is not generally necessary after no in commands, because there's no first argument for it to negate.
10. Tense and locator words (inflectors) act as prepositions before any argument they precede: vi ta in there, na ti at this [time]. This is why you should use them as adverbs only before a predicate or at the end of an utterance; otherwise they may fool you by absorbing an argument.
11. The Little Word gu "shuts off" the word or phrase it follows, so that (in this case) an inflector will no longer absorb the next argument. Be careful, though: gu only shuts off whatever is most recent. Often a phrase will end in a word that needs to be shut off with gu-but then you find that the phrase itself needs to be shut off! You may need to use several gus to end some phrases. (More elegant solutions exist, as we'll see later.)
12. Don't put inflectors before predicates used as commands; put them at the end of the utterance. (We'll see why in lesson 16.)
13. Nu creates a new predicate (I repeat, a new predicate) out of the next predicate word. This is called conversion, and nu is sometimes called the first passive-a term which, as we shall soon see, is misleading. The converted predicate is like the original, except that the old first and second blanks change places. This is often like the passive voice in English: Mi pa madzo ta I made that becomes Ta pa nu madzo mi That was made by me. But this doesn't always work: Ti bukcu ta This is a book about that can't
be made passive in English: Ta nu bukcu ti *That is about-booked this (That is the subject of this book).

There are two other conversion operators:

Fu works like nu, but it exchanges the first and third blanks of the original predicate. Ei tu fu bukcu? Are you an author (book-writer)? (fu bukcu _ is a book-writer on topic(s) _ in $\left.\operatorname{book}(s) ~ \_.\right)$

Ju also works like nu, except that it trades the first and fourth blanks. Hu pa ju godzi? What was the route? (ju godzi _is a route for going to _ from , a route used by _.)

Although conversion creates a separate predicate, the new predicate still refers to the same concept as the original predicate. Fu bukcu is not just any author, but a book-writer. Fu takna is something talked about, not a subject in general.

## Summary: Lesson 2

1. Dropping the first argument of a predicate produces a command. Don't put inflectors (fa, na, etc.) directly in front of the predicate.
2. Eo (please) softens commands, while ea (let's) creates a suggestion which often includes the speaker.
3. A command beginning with No means Don't _! No takna! Don't talk! Similarly, No, before a sentence negates it: No, ta ditca (It's not the case that that's a teacher.). This
sentence does NOT mean what a literal translation suggests (No, that's a teacher.); we'll see in Lesson 4 how to say No, ... in Loglan. Note that the pause comma is not necessary in commands because the first argument is omitted.
4. Attitude indicators such as ai (I intend to/that) show how the speaker feels about a statement or command.
5. Placing one predicate word in front of another one creates a new predicate: Ta gudbi ditca (That's a good teacher.).
6. Free modifiers are a class of words which may be placed practically anywhere in a sentence without greatly altering its basic claim. They modify the word they follow, or the utterance as a whole if placed before it.
7. Inflectors act like adverbs when before predicates and at the end of an utterance, but like prepositions when before arguments.
8. The Little Word gu shuts off inflectors so that they don't absorb the next argument.
9. Conversion operators act on predicate words to create new predicates with differently-ordered blanks. Nu creates a predicate whose first two blanks are the reverse of the original predicate word, while fu predicates have the original first and third blanks reversed, and ju predicates reverse the first and fourth. For example:
godzi is a goer to destination from starting-point _over route $\qquad$ nu godzi _ is a destination of goer _ from starting-point _ over route _ fu godzi _ is a starting-point to destination _ of goer _ over route ju godzi _ is a route to destination _ from starting-point _ of goer _

## Lo Cninu Purda

Predicate words
cutse _ says _to _
gencue _ repeats _/says _ over to _
gleca _ is a part/example of the English language
gudbi _ is better than _for/in _
kerju _takes care of
logla _ is a part/example of the Loglan language
logmao _Loglanizes _; _translates _into Loglan
redro _ is redder than _
saadja _ understands the meaning of sign/symbol $\square$ [SAnpA DJAno $=$ sign-know]

Little Words [For attitude indicators, see note 5]
ea Let's/I suggest that we _(free modifier)
eo please; may _? (free modifier)
toa that remark/statement
toi this remark/statement

## Lopo Lenbatmi Cirduo

1. Logmao toi, eo.
2. Ei ba gleca cutse va mi?
3. Ta he ditca?
4. Ta ridle ditca.
5. Ta redro he?
6. Ta redro bukcu io.
7. No ridle ta na!
8. No, mi pa ridle ta.
9. No pa mi ridle ta.
10. Mi fa durzo ta.
11. Mi ai durzo ta.
12. Ea mu logla cutse.
13. Gencue eo toa.
14. Ei tu saadja toi?
15. Ae mi saadja toa.
16. Kerju tu!
17. Ai mi kerju mi.
18. Ae no durzo ta.
19. No durzo ae ta.

Loglanize this statement, please.
Does anyone speak English around me?
That's what kind of teacher?
That's a reading teacher. (A teacher who reads)
That's a red what? (What is that red thing?)
That's a red book, I think.
Don't read that now!
I didn't read that.
Don't read that before I do!
I will do that. (Prediction)
I will do that. (Intention)
Let's speak Loglan.
Repeat that, please.
Do you understand this remark?
I hope I understand that remark.
Take care of yourself?
I intend to take care of myself.
I hope you don't do that.
I hope you don't do that.

## Lesson 3: Getting into Arguments

## Lo Mipli Steti

| 1. $\mathbf{K i e}^{\mathbf{1}}$ | $\mathbf{L e}^{\mathbf{2}}$ | laldo | brudi | kiu | Tu | ridle |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| ( | The-one-which-seems-to | be-an-older | brother | ) | You | read |

ba $\quad h u^{3}$ ?
something [from] what?
([The] older brother) What are you reading [from]?
2. (Le logcirna) $\mathrm{Nahu}^{4}$ tu pa nengoi? Ti logla
(The Loglan-learner) At-what you before come-in? This is-a-Loglan bukcu.
book.
The beginning Loglanist: When did you get in? This is a Loglan book.
3. (beis ${ }^{\mathbf{5}}$ Ua. $\mathrm{I}^{\mathbf{6}}$ ei le bukcu gaºtreci?
(b) Oh. And [?] the book [predicate follows] is-interesting?
b : Oh. And is the book interesting?
4. (lei) Ia, levi ${ }^{8}$ bukcu ga treci. I- buo ${ }^{9}$ letu ${ }^{10}$ bukcu
(1) Yes, the-here book [] is-interesting. And- however your book....

1: Yes, this book's interesting. But your book...
5. (bel) Irea beo ${ }^{11}$ tcure clesi. Ibuo
(b) [And]-Of-course beta is-picture- without. [And]-However
ei tu feu saadja letu bukcu?
[?] you in-fact understand your book?
b: Of course, it doesn't have pictures. But do you really understand your book?
6. (lei) Ia. Ibuo hu gleca sanpa li, hasfa, lu?
(l) Yes. [And]-However what is-an-English sign-for " hasfa "?

1: Yes. But what does "hasfa" mean in English?
7. (bei) Li, hasfa, lu logla sanpa
(b) " Hasfa " is-a-Loglan sign-for
lie ${ }^{13}$ gleca, house, gleca.
[foreign quote, next word is right quote] [right quote] house [right quote]. b: "Hasfa" is Loglan for "house."

## Lona Cninu Purda



| sanpa | _ is a sign meaning _ to _ and prompting behavior_under | $(\operatorname{sign}[\mathrm{SAiN}])$ |
| :---: | :---: | :---: |
| tcure | circumstances $\qquad$ <br> _ is a picture of _by | (picture [pikTCR]; Sp. pintura |
|  |  | [pinTURa]) |
| treci | _ is interesting to _ in feature(s) | (interest [inTyREst]) |

Little Words
bei the lowercase letter b (see note 5)
beo the lowercase Greek letter beta ( $\beta$; see note 11)
buo however, in contrast to what has been said (free modifier)
ga [indicates that the predicate is about to begin; see note 7]
hu what? (interrogative argument)
I And (begins a follow-up sentence)
le the one I mean which seems to _ (see note 2)
lei the lowercase letter I (see note 5)
li " (Left quotation mark; see note 12.)
lu " (Right quotation mark; see note 12.)
rea of course, clearly, obviously (free modifier)

## Lopo Lengu Klimao

This lesson covers two new types of arguments: descriptions and letter pronouns. We'll also look at another of Loglan's peculiarities-spoken punctuation marks.

## Notes:

1. In Loglan we speak our punctuation marks, and kie and kiu are spoken parentheses. Parenthetical remarks are used to comment on a statement or give further information about it. Here, they identify the people speaking the dialog. You may use kie or (, and kiu or ) in writing, but you must say kie and kiu when speaking or reading aloud. When writing, pick either the word or the symbol and stick with it-kie...) and (...kiu look weird.
2. Le turns a predicate into an argument that refers to what someone/-thing appears to be: le lerci = the one(s) I mean which seems to be a letter [to _from_about ]. Notice that this is a matter of appearance: it could be some study notes. You're just calling it a letter for purpose of discussion. Whether it is a letter is unimportant; the question is, can your audience locate it based on the term you use?

Note that le shuts off a predicate's blanks. Otherwise, you'd have to fill in every blank for such predicates, and you'd never finish a sentence! There are ways to turn the blanks back on, as we'll see later. Also keep in mind that Loglan doesn't force a singular/plural distinction; le lerci may refer to one or several. The only way to specify number is with a regular number or with a quantifier such as English many:
3. Hu is an interrogative argument. It asks for an argument for which some claim is true: Hu lerci? What is there that is a letter? (This does not ask for a definition, as What is a letter? probably does.)
4. Remember from Lesson 2 that inflectors may be used prepositionally with arguments-and hu is an argument! So nahu (usually written as one word) means at what time? when?, vihu means at what place? where? We also have pahu before when?, vahu near where?, etc.
5. In Loglan, as in mathematics, arguments are often abbreviated to their first letter. (This avoids ambiguities such as "He told him that he would do it": Is the last "he" the first, the second, or perhaps some otherwise unmentioned third?) Le brudi becomes bei, le logeninu becomes lei, and so on. This gives you 52 pronouns to play with, which should keep you out of trouble for a while. The letter-names are given in the introductory section (p. 9); briefly, though,

Lowercase consonants add -ei: cei, dei, mei (c, d, m)
Lowercase vowels add -si: asi, esi, isi (a, e, i)
Uppercase consonants add
Uppercase vowels add
-ai: Cai, Nai, Vai (C, N, V)
-ma: Ima, Oma, Uma (I, O, U)
(Uppercase letters are reserved for names, as we'll see in the next lesson: Ie matma $\rightarrow$ mei, la Matma $\rightarrow$ Mai.)
6. The little word I is put at the beginning of a sentence to show that it's a follow-up to or continuation of the thought expressed in the preceding utterance. (This word is usually omitted in English translations.) Note the difference between

I no, ta bukcu. [And] It is not the case that that's a book. (That isn't a book.)

No. I ta bukcu. That is not the case; that's a book. (No, that's a book.)

The first sentence might answer the question, Ei ta bukcu? (In this case, there would probably be another No: No. I no, ta bukcu.) The second might be a response to Ei ta lerci? The I keeps the no from affecting what follows by showing that a new sentence on the same topic has begun.
7. If the first argument of a predicate is a description, place an inflector (na, pa, fa, vi, $\mathbf{v a}$, or $\mathbf{v u}$ ) in front of the predicate to show where it begins. If you don't want to be that specific, just use ga. (Ga isn't really an inflector; it's a punctuator which means in this case that the next word is the beginning of the predicate.) Thus you might say Mi fumna, but Le matma ga fumna. Otherwise you would produce an argument (Le matma fumna, the maternal woman), not a claim.
8. When you put le in front of a predicate, you get an argument; this works (in simple cases) even if the predicate is tensed or located (le combines with the tense/location words): le + vi hasfa = levi hasfa ("the-here house": this house). Similarly, lefa bukcu (the future/upcoming book), lepa ditca (the former (ex-) teacher). Remember that ga is not an inflector; *lega is meaningless. (In fact, it would mean the same thing as le alone.)
9. Discursive modifiers such as buo relate the present sentence to something which has already been said or implied. Thus, buo refers back to levi bukcu ga treci. Feu a few sentences later brings up the implication that the new Loglanist can understand the book lei is reading. Note that I tends to form compounds with discursive modifiers: one normally writes Ibuo and Ifeu, not I buo and I feu. As a general rule, whenever you encounter an ICVV-form word (I followed by a consonant and two vowels), you're looking at such a compound. To find out what it means, look up the -CVV part.
10. Possessive constructions often look like levi compounds, but the underlying structure is not the same. Possessives involve any kind of argument placed between le and its predicate (as before, le combines with Little Word arguments, such as mi, ta, and dei): lemi bukcu (my book), leta ditca (that one's teacher), lebei bukcu (b's book).
11. Since bei is already taken (brudi), bukcu becomes beo (B). -eo forms another set of lower-case letter names which may be written as Greek letters. (Actually, bei would have used bei, because the letter was only used outside the conversation to identify the speakers. Bei and lei never used it themselves.)
12. Li and lu are spoken quotation marks. Like kie and kiu, they are always spoken aloud and written in text. Everything beginning with li and ending with lu is an argument. Li and lu are used only for correct Loglan; anything else (English, incorrect Loglan, etc.) is quoted using lie (see note 13). It's a good idea to pause inside a quote (after li and before lu ) just in case the Loglan you're quoting isn't quite correct: the pauses will help a listener separate the quotes from the quotation. This is not strictly necessary for quoting correct Loglan, however.
13. Lie is used to quote everything but grammatical Loglan. (You could use it even then, but it's unnecessary.) Here's how it works: lie [word], [quoted material], [word]. Lie tells your audience two things: First, a foreign quote is about to begin, and second, that the next word is going to act as the closing quote. Then comes a pause, followed by the quote (which must not contain the quote-ending word) and finally, another pause and the word which closes the quotation. The reason the word must not occur during the quote is of course that it would end the quote.

Generally, Logli use the first letter of the word for the language used in the quote to end the quote. For example, an English quote would begin with lie gei, and end with, gei (from gleca). I used gleca because gei is a word in English (gay), but gleca (*glesha) is not-in fact, it doesn't begin any words in English, for that matter. So you're always safe using gleca-unless, of course, you quote something like "Glesha is not an English word."

Sentences (6) and (7) are extremely important! You need to know how to ask How do you say _ in English/Loglan? This is how: Hu gleca sanpa li, _, lu? and Hu logla sanpa lie gleca, _, gleca, respectively. Memorize these two sentences. (We will see later that single words are quoted with liu, a combination of li and lu: liu hasfa the word "house." However, if distinguishing between li...lu and liu is too hard when you're actually speaking, go ahead and use li...Iu. Liu is just faster.)

Lopo Purmao

Word-making

In the Introduction, I mentioned complexes. Complexes are predicate words made up of affixes, called djifoa ("join-forms"). There are two types of affixes: Long affixes are
primitives whose final vowel has been changed to -y-, as mreny- (mrenu), cirny- (cirna), and logly-(logla). Long affixes never end a word; use the regular form instead: loglycutse ("Loglan-say"). Short affixes are three-letter abbreviations of primitives. They may be CCV (MREnu), CVV (CIrnA), CVC (LOGla and CIRna). Not all primitives have short affixes, and some, like cirna, have more than one. CVV affixes sometimes add -r for proper resolution (baormao, box-maker), while CVC affixes sometimes add -y to make the result more pronounceable (socysensi, social-science). We'll explore these matters fully in the lessons to come.

A complex, then, consists of djifoa, and it may end in a regular primitive, as in dicbukcu (is a textbook [teach-book] on subject_by ). Djifoa give Loglan an ability not found in any other language I know of: Almost all complexes may be made longer or shorter, depending on the type of djifoa you use. So dicbukcu could also be ditcybukcu, ditcybuu, or dicbuu. (Ditca also has the djifoa -dia-, so you could also replace dic- with diar- in these examples.) As a general rule, length adds emphasis (ditcybuu textbook versus dicbukcu textbook). Shorter forms are also less formal, almost slangy-and harder for a learner to understand! (Which would you rather figure out, ditcybukcu or dicbuu?) The moral is, always learn the metaphor ("teach-book") behind the complex. Then you'll be able to recognize variations. You may also want to ask, Lagfompli, eo (Use long forms, please.).

## Lo Nurvia Logla

Visible Loglan
(The vocabulary follows the reading; translations are given beginning on page 213, answers to Lo Kenti on page 229.)
(bei) Ua, le cirna ga tedji ridle. I tu ridle hu?
(lei) Levi bukcu.
(bei) Irea uo! I ta he bukcu?
(lei) Ti treci.
(bei) Tu logli ia penso! Ei ta logla bukcu?
(lei) Ua! Ia, ti logla bukcu.
(bei) I ta feu dicbukcu.
(lei) Ia. Oa mi godzi na. Lemi cirna grupa fa takna cirduo na lena natli vi le ckela. Eo mi plizo letu tcaro?
(bei) Oi. Ibuo tei broda.
(lei) Ue! I hu pa ckozu tao? No, tei broda na lena monza!
(bei) Ei tu pa dirlu letu torkrilu?
(lei) No. Ibuo le ckela ga mutce darli.
(bei) Ae mi tcaberti tu ti fa.
(lei) Ae ia!
(bei) Rea oi tu stolo ti. I ae mi fa kukra nakso le tcaro.
(lei) Ue ei? Sia, oe no. I mi oa sackaa na. Eo tcaberti ckano mi fa! I loa!

## Lo Kenti

## Questions

1. Lei ridle hu?
2. Lei he ridle?
3. Ei beo treci lei?
4. Nahu le cirna grupa fa cirduo? I vihu?
5. Le tcaro ga he?
6. Ei lei fa plizo le tcaro? I lei plizo hu?

## Lona Cninu Purda

(Predicates you will meet again later are printed in bold italics-in this case, all of the predicates are in this category. The other predicates are only required to understand the reading. You should memorize all Little Words and primitives, as well as the vocabulary from Lo Mipli Steti and exercises.)

| Predicate words |  | Clue words |
| :---: | :---: | :---: |
| broda | _ is broken/inoperative/not working | (broken [BROkn]) |
| cirduo | _ practices _ | [CIRna DUrzO = learn-do] |
| ckano | _ is kind to _ | (kind [KAiNd]) |
| ckela | _ is a school of community _ | (school [sKuL]; Sp escuela [esKuELA]) |
| ckozu | _ causes _ under circumstances _ | (cause) |
| darli | _ is farther from _ than _ is by dista | (far [fAR]) |
| dicbukcu | _ is a textbook about subject _ by _ | [DItCa BUKCU $=$ teach-book] |
| dirlu | _ loses/misplaces _ | (lose [LUz]) |


| grupa | _ is a group made up of members _ | (group [GRUP]) |
| :---: | :---: | :---: |
| kukra | _ is faster than _ by amount _ | (quick [KUiK]; Sp. rápido |
|  |  | [RApido]) |
| logli | _ is a Loglander/knows Loglan |  |
| monza | _ is the morning of day _ | (morning [MOrNin]) |
| mutce | _ is more extreme than _in _ | (much [MyTC]; Sp mucho |
|  |  | [MUTCo]) |
| nakso | _ fixes _ for use/user _ by _ | (fix [fiKS]) |
| natli | _ is the night-time of day | (nightly [NAiTLI]) |
| penso | _ think about _ | (pensive [PENSiv]) |
| sackaa | _ departs/leaves _ for _ | [SAtCi KAmlA $=$ start-come] |
| stolo | _ stays at _ | (stay [STei]) |
| tcaberti | _ transports _ to _ from _ | [TCAro BERTI = car-carry] |
| tcaro | _ is an automobile/car | ( $\operatorname{car}$ [ $\mathbf{k A R}$ ]; "chariot"] |
| tedji | _ pays attention to _ | (attend [yTEnD]) |
| torkrilu | _ is a bicycle | [TO(R) KRILU $=$ two-wheel] |

## Little Words

feu in fact, indeed, actually (free modifier)
loa goodbye
rea clearly, of course (free modifier)
sia thanks (free modifier)
tao that situation (the one that has been mentioned)

## Summary: Lesson 3

1. Hu asks for an argument which will correctly complete an utterance.
2. I indicates that you've started a new sentence which continues an earlier one, including something someone else said.
3. You can abbreviate arguments to their first letter.
4. Le turns a predicate into an argument meaning the one(s) which seems to + [the meaning of the predicate]. It turns off the predicate's blanks in the process.
5. Le + an inflector (na, vi, etc.) produces a tensed or located designation.
6. Le + an argument (followed by a predicate expression) creates a possessive designation, in which [argument] is related somehow to the one identified by [predicate].
7. When the first argument of a predicate begins with le, use an inflector or ga to mark the beginning of the predicate.

## Lopo Lenbatmi Durcia

(This section will be a bit shorter from now on, because part of its goal-to provide sample texts and exercises-is now achieved by Lo Nurvia Logla and Lo Kenti.)

| 1. Eo mi lagfoapli? Oi. | Please, may I use long forms? Yes [you may] |
| :---: | :---: |
| 2. Mi ao djifoa plizo. | I want to use affixes. [djifoa use] |
| 3. Nahu tu sackaa? | When are you leaving? |
| 4. Na lefa natli. | At the-future [probably tomorrow] night. |
| 5. Ba vihu bukcu? | Where is there a book? |
| 6. Ba vi mi bukcu. | There's a book by me. |
| 7. Le bukcu ga he treci? | How interesting is the book? |
| 8. Bei mutce treci. | It's very interesting. |
| 9. Ei letu lerci ga treci? | Is your book interesting? |
| 10. No. Ibuo lei djipo. | No, but it's important. |

## Lesson 4: Identity Without Crisis

## Lo Mipli Steti

(John sees his friend Megan across a crowded room.)

1. (La ${ }^{1}$ Djan) $\mathbf{H o i}^{2}$ Megn! I loi!
(The-one-called John) O/Hey Megan! And hello! (John) Hey, Megan! Hi!
Ie ${ }^{3}$
ta?

What-is-another-name-for that?
And who's that?
2. (Mai) Loi! I ti bi ${ }^{4} \quad$ la Palys.
(M[egan]) Hi! And this is-also-known-as Paula.
3. (Dai) Ui. Tu he speni, Palys ${ }^{5}$ ?
(D) [pleasure] You what? experience, Palys?
(John) Oh! And how's it going, Paula?
4. (Pai) Mi... Ue! Hoi Matma! La Ditca! ${ }^{6}$
(P) I... Hey! O Mother! The-one-called Teacher!
5. (Dai) Ie?
(D) Who?
6. (Mai) Le la Palys, ${ }^{7}$ ditca. I dei
(M) The the-one-called Paula teacher. And [the teacher]
bie $^{8} \quad$ la Famji Kerll.
is-also-known-as-one-of the-one-called Family Carroll.
Paula's teacher. She's one of the Carrolls.
7. (Dai) Ua, le ditca pe la Palys. I...
(D) Oh, the teacher of Paula. And...
8. (Mai) Palys! Loa, Djan! I oa mi godzi
(M) Paula! Bye, John! And it-is-necessary-that I go

## la Detra!

[to] Daughter!

## Lona Cninu Purda

| Predicate words | Clue words |  |
| :--- | :--- | :--- |
| detra | - is a daughter of _ | (daughter [DaTR]) |
| famji | - is a family with members _ | (Sp familia [FAMIlia]) |
| matma | is [a] mother of _ with father _ | (mama [MAMA]; maternal) |
| speni | _ experiences _; spends _ [time] | (spend [SPENd]) |

Little Words
bi _ is also known as/called _ (See note 4.)
bie _ is also known as/called one of _ (See note 8.)
hoi O/hey (A word used in calling someone by name; see note 2.)
ie Which _? Who? What is another name for _? (See note 3.)
la the one I mean called _ (See note 1.)
loi hello
pe of (A word indicating "possession" or general relationship; see note 9.)
ui Good! (Attitudinal indicator expressing pleasure.)

## Usages

Tu he speni? How are you doing? (You are how experiencing [life]?)

Lopo Lengu Klimao

Loglan divides the world into claims (predicates) and the things those claims are about (arguments). Of these, only claims can be true or false. How can an argument, such as the book (le bukcu) be true or false? Can you prove it? Or disprove it? No. But claims at least theoretically can be proved or disproved. We'll see in a moment how important this is to understanding Loglan. There are three types of arguments in Loglan:

1. Pronouns, or variables, which point to something present either physically (mi, tu) or in context (as when bei refers back to le bukcu or le brudi).
2. Descriptions, which tell what something appears to be or what it may be thought of as being. Le is a descriptor, because it creates descriptions. There are several of these descriptors in Loglan, and we'll look at all of them eventually.
3. Names, which refer to what something is called. Names may be taken from a description, but they may also be nothing but arbitrary labels.

Again, arguments, including descriptions and names, are not claims. For that matter, claims aren't generally about descriptions, names, or variables; instead, claims involve the actual thing(s) the argument refers to. Le bukcu ga redro is not really a claim about a description, but about the thing described: the thing I think looks like a book.

Now the obvious question is, "Which thing do you mean?" People can usually figure out which thing you're talking about if you pick reasonably "clear" descriptions, and don't call a book-like thing le tcaro, say. But before you or your audience can tell whether a claim is true or false, the identities of the arguments must be settled. So if I remark that the book is heavier than Paul (Le bukcu ga tidjo la Pal), you need to know which book and which Paul I'm talking about.

There are two ways to find out who's who and what's what. You can ask for a claim about the thing (Le bukcu he? La Pal, he?) or you can ask for another name (Ie le bukcu? Ie la Pal?). In the first case I might claim that the book-like thing I'm talking about is red (Le bukcu ga redro) and that the Paul I'm talking about is a learner (La Pal, cirna). In the second case I might say that Paul is also known as Paul Jones (La Pal, bi la Pal Djonz) or that he is the student we'd been talking about (La Pal, bi le cirna). Then you could figure out whether Le bukcu ga tidjo la Pal [Djonz] is true or false.

When we give another name for something-actually another argument for it-we use bi. Note that bi is not a predicate: though you can put ga and le in front of any real predicate, *ga bi and *le bi are meaningless. Also, utterances containing bi are not
claims. They just link a pair of arguments, so that both are taken to refer to the same thing. Thus, La Pal, bi le cirna means that whenever I say la Pal, you could replace it with le cirna, and vice versa. The problem with all this is that in English, claims (with predicates) and identity sentences (with bi) usually look the same. To tell the difference, you can ask whether the sentence is actually about a person or thing (a claim) or just about names (an identification).

A quick-and-dirty way to solve the problem is to look at what comes after the verb be: a usually marks a claim, while the usually marks an identification:

$$
\begin{array}{ll}
\text { La Selis, matma. } & \text { Sally is a mother. } \\
\text { La Selis, bi le matma. } & \text { Sally is the mother in question. }
\end{array}
$$

Of course, in English you don't usually say Sally is A mother of Paula (La Selis, matma la Palys), though it's true if you think about it. After all, if Sally is Paula's mother, she must be a mother of Paula. We say "the" because Paula probably has only one.

## Notes:

1. La means the one I'm thinking of who is called : La Palys, (the one I'm thinking of who is called Paula). It is also used (like le) to make arguments (in this case, names) out of predicates: la Matma the one I'm thinking of who is called Mother lof _ with father J. (Like le, la turns off the predicate's blanks.)

When you use a term generally (usually with the), use le; when you use it as someone's name (or as part of it), use la. Ex. le ditca = the teacher; la Ditca [Smit] = Teacher
[Smith]. As in English, titles precede personal names; in the same way the Carrolls [family] becomes la Famji KerlI.
2. Whenever you call anyone/-thing by name, replace la with hoi: Hoi Matma! Mother! Hoi Ditca (Djonz)! Teacher (Jones)! Hoi Tun! Hey, you! (An-n has been added to tu to make it a name. This is how little words are turned into names.) As a rule of thumb, when you call someone/-thing, you are using a name.
3. Ie followed by an argument asks for the argument's identity (a name or designation): "Which one do you mean?" There are two ways to answer this question: first, with an identity (Le la Palys, ditca), and second, with a sentence using bi (I ti bi la Palys).
4. Utterances with bi claim that two names or designations refer to the same person or thing: Mi bi la Palys = I am also known as Paula/You may replace the word "I" (when I use it) with the name "Paula." You can also use ei to check an identification: Ei tu bi la Palys? Are you the one called Paula? This is short for constructions such as Ei li tu bi la Palys, lu gudbi ju nursancue? Is "You are Paula" a good identification? (nursancue _identifies_as _).
5. If a Loglan operator doesn't need to appear explicitly in a certain context-if its meaning can be clearly inferred from that context-it may be omitted. Thus you can say,
Palys! Paula!

Godzi, Pal! Go, Paul!
instead of

| Hoi, Palys! | Hey, Paula! |
| :--- | :--- |
| Godzi, hoi Pal! | Go, O Paul! |

and still call the attention of Paul and Paula. But notice that you can't drop hoi when the name it precedes is a predicate, or when the attention-calling name follows another name. Thus in the following sentences, hoi is necessary:

| Hoi Ditca! | Hey, Teacher! |
| :--- | :--- |
| Godzi, hoi Ditca! | Go, O Teacher! |
| Godzi la Meris, hoi Djein! | Go to Mary, O Jane! |

Without the hois, the meanings would be sharply different:

| Ditca! | Teach!/Be a teacher! |
| :--- | :--- |
| Godzi ditca! | Be a going teacher! |
| Godzi la Meris Djein! | Go to Mary Jane! |

6. When you call someone by name, use hoi, but when you call attention to someone, use la: Hoi Ditca! Hey, Teacher! La Ditca! Hey! It's Teacher! (Both of these are different from Ba [vi] ditca! There's a teacher [here]!) You could also say Le ditca! It's the teacher (the one I mentioned)!
7. This is an extension of the lemi construction. Remember, le + an argument is possessive, and designations and names are arguments. Thus le la Palys, ditca is only a longer version of lePai ditca.
8. Bie means is also known as one of ; it's used to identify someone or something as a member of some group. Thus, the teacher is one of the Carrolls, a family John presumably knows about.
9. Possessive constructions with full names or descriptions are often awkward, so the little word pe (of) allows you to expand a description of, say, Monticello, from le la Tomys Djefrsyn, hasfa to le hasfa pe la Tomys Djefrsyn.

## Lopo Purmao

CCV djifoa are always safe. Remember that. No complications, no exceptions. You can put them at the beginning, middle, and end of complexes. CCV djifoa are usually taken from the first three letters of a primitive (pli from PLIzo use ), though at times a letter or two will be skipped (dru from DiRIU lose [object/property]), and in a few cases letters have been reversed (flo from FOLma -ful, -ous).
pli PLIzo use (a tool):
logpli [LOGla PLIzo = Loglan-use] _ uses Loglan in situation _
dru DiRIU lose (a quality):
kladydru [KLADa (Y) DiRIU = cloud-lose] (area)_ clears up, becomes uncloudy
flo FO/Lma full of, having a lot of:
kladyflo [KLADa (Y) FO/Lma = cloud-full] (area) _ is cloudy

## Lo Nurvia Logla

## Vi le ckela

(La Deinys) Loi, Pal!
(La Pal) Loi, Deinys! Tu he?
(Dai) Mi tarle. Ifeu mi torkrilu godzi ti. Le la Karl, tcaro ga broda.
(Pai) Uu ue! I... Loi, Adris! Ta ie?
(Ama) Loi, Pal. Loi, Deinys. I ti bi la Kicmu Inés Del Ri,os.
(Dai) Ui mi socli jmite tu! Mi bi la Deinys.
(Pai) Ea mu jmihai! I mi bi la Pal!
(Ama) Io no, la Deinys, hapci.
(Pai) Dai groci ia le brudi.
(Dai) No, mi groci.
(Ima) Tu logjunti, ei, hoi Deinys?
(Pai) la. I la Karl, logli. Ibuo no, Kai helba Dai.
(Ima) I ie la Karl?
(Pai) La Karl, bi le brudi pe la Deinys.
(Ima) Uu uo! No, letu brudi ga logpli vi tu, ei?
(Dai) I Kai logpli ia. Feu, no la Karl, fatru mi. I la Pal, buo...
(Pai) Eo ckano, Deinys. Tu tarle groci. La Deinys, torkrilu godzi feu ti.
(Ima) I ba ia kladyflo! Tu fa crina! Eo mi tcaberti tu.
(Dai) Ou, sia! Ia Kai fa tcaberti mi.
(Le grupa ga nengoi le ckela.)
(Pai) Ui ba na kladydru! Ifeu, no ba klada vi! Ba pa mutce kladyflo.
(Dai) Ua ui! La Karl! Sii le tcaro na nu nakso!

## Lo Kenti

1. Ie la Kicmu?
2. Hu fatru la Deinys?
3. Ei ba klada vi le ckela?
4. Ibuo ba pa he?

Lo dupma kenti Trick question: Ei la Inés, kicmu?

## Lona Cninu Purda

| Predicate | words | Clue words |
| :---: | :---: | :---: |
| crina | _ is rained on by | (rain [RelN]) |
| fatru | _ troubles/annoys _ by [doing] _ | (trouble) |
| groci | _ is angry/grouchy with _ about _ | (grouchy [GRaOtCI]) |
| hapci | ${ }_{-}$is happy about | (happy [ $\mathbf{H A P I}$ ]) |
| helba | _ helps _ to [do] | (help [HELp]) |
| jmihai | _ are glad to meet (each other) | [JMIte $\mathbf{H A P C I}=$ meet-happy] |
| jmite | _ meets _ | (meet [MIT]) |
| kicmu | - is a doctor treating _ for _ with | (cure [KIUr]) |
| klada | _ is a cloud in airmass _ | (cloud [KLADD]) |
| kladydru | _ clears up, becomes unclouded | [KLADa (Y) DiRIU = cloud-lose] |
| kladyflo | _ is cloudy/full of clouds | [KLADa (Y) FOLma = cloud-full] |
| logjunti | _ is a beginning Loglanist | [LOGII JUNTI = Loglanist-young] |
| logpli | _ uses Loglan in/by doing _ | [LOGla PLIzo = Loglan-use] |
| socli | _ interacts socially with _ | (socially [SOCyLI]) |
| tarle | _ is tired from | (tired [TAiRd]) |

## Little Words

sii apparently, seemingly (free modifier)
uu Oh. (Attitudinal indicator expressing sorrow or regret.)

Usage
Ea mu jmihai! (Literally, Let's be glad to meet [one another]!) This is an expression used when being introduced to someone, like English How do you do? and Pleased to meet you!

Names
Del Ri,os Del Rio; the comma between $i$ and $o$ keeps them from being pronounced together (as ryos). Ri,os is pronounced ree-os. (See the section on pronunciation (p. 5) in the Introduction.)

Summary: Lesson 4

1. There are two kinds of statements in Loglan: predications and identifications. Predications tell what something is or does; identifications tell which thing you're talking about by linking two designations.
2. The two identity-linking words are bi and bie: asi bi bei simply means that in what is being said or written at the moment, $a$ and $b$ refer to the same person or thing-they may be used interchangeably. Bie identifies something as a member of a group: American authors, British books, planets in the solar system, etc.
3. Ie [argument] (Which [argument]?) asks for an identification of [argument]. The answer may be a complete sentence with bi or bie, or just the alternative designation: Ie la Selis? [La Selis, bi] le ditca. Which Sally? [Sally is] the teacher.
4. La signals a name, that is, the one I mean called _. La may precede either a regular name (which ends in a consonant: Djan John) or a predicate (la Ditca Teacher).
5. Hoi is generally followed by a name: Hoi Ditca! Hey/O Teacher! Use hoi when you're calling someone by name; exclamations (La Ditca! [It's] Teacher! Le ditca! It's the teacher!) use regular arguments. It may be omitted before regular names (those that end in a consonant), but not before predicates used as names.
6. There are two ways to show possession (or just general relationship): le [argument] [predicate], where [argument] is related to le [predicate]: lePai ditca P's teacher; le la Palys, ditca Paula's teacher, and [argument1] pe [argument2], where pe works like English of: le ditca pe Pai/la Palys the teacher of P/Paula.

## Lopo Lenbatmi Cirduo

1. Loi! I mi bi la Djim. Ie tu?
2. I mi bi la Meris. Ie la Djim?
3. La Djim Rid. Ei tu bie la Brrn?
4. No. I mi bi la Meris Paoll. Ei tu ditca vi?
5. No. I mi kicmu. Ei tu ditca?
6. I mi ditca helba.

Hi! I'm Jim. Who are you?
I'm Mary. Which Jim are you?
Jim Reed. Are you one of the Byrnes?
No, I'm Mary Powell. Do you teach here?

No, I'm a doctor. Do you teach?
I'm a teacher's assistant [teach-help].
7. Itu helba hu?
8. I mi helba la Fum Frenklin.
9. Ua, tu bi le helba pe la Fum Frenklin. Oh, you're the assistant of Ms. Franklin.

Ao takna tu lemi detri.
I dei bi la Teris.
10. Uu tu takna le la Teris, ditca oe.

And who[m] do you help?
I help Ms. [Fum] Franklin.

I'd like to talk to you about my daughter.
She's Terry.
I'm sorry, you should talk to Terry's teacher.

## Lesson 5: Modifying Your Position

## Lo Mipli Steti

1. Ta treci bukcu ${ }^{1}$ ridle

That is-an-interesting-book- reader.
That is an interesting-book reader (a reader of interesting books).
2. Ta treci bukcu ci $^{2}$ ridle

That is-an-interesting [-] book - reader.
That is an interesting book-reader.
3. Le blanu bukcu ga treci le farfu je ${ }^{\mathbf{3}} \quad$ la Djan, jue ${ }^{\mathbf{3}}$ la Meris.

The blue book interests the father [of] John [by] Mary.
4. Le treci ${ }^{4}$ je le farfu gu bukcu ga blanu

The interesting- [to] -the-father [,] book is-blue.
5. Le treci ${ }^{5}$ je le farfu ga redro bukcu

The interesting [thing]- [to] -the father is-a-red-book.
6. $\mathbf{T a}$ treci je mi ge ${ }^{6}$ logla bukcu ridle.

That is an interesting- [to] -me type-of (Loglan-book reader).
That is a Loglan-book reader who is interesting to me.
$\begin{array}{clllll}\text { 7. Ta } & \text { logla bukcu } & \text { ridle } & \text { go }^{7} & \text { treci } & \text { mi. } \\ \text { That } & \text { is a Loglan-book } & \text { reader } & \text { who } & \text { is interesting to } & \text { me. }\end{array}$
8. Tu mela ${ }^{8}$ Pavarotis, [gritu].

You are-a- Pavarotti(ish) [singer].
You sing like Pavarotti.
9. Tu gritu clika ${ }^{9}$ la Pavarotis.

You are-sing- similar-to Pavarotti.
You sing like Pavarotti.

## Lona Cninu Purda

Predicate words
blanu _ is bluer than _
clika _ is like/similar to _ in feature _
farfu _ is a [the] father of _ through mother _
gritu _ sings _to _

Clue words
(blue [BLU]; Sp. azul [AsUI])
(like [LaIK])
(father [FAdR])
("A bird may greet you by singing.")

Little Words
ci hyphen (see note 2 )
ge for a _; type [of] _ (grouping operator; see note 6)
go which/that is _ (inversion operator; see note 7)
je first link of predicate (see note 3)
jue sutori (at least second) link of predicate (see note 3)
me predifier; turns the following argument into a predicate (see note 8)

## Lopo Lengu Klimao

## Notes:

1. An important difference between Loglan and English is that in Loglan you can always tell what modifies what. A modifier modifies the word immediately to its right. If that word is a modifier, then the pair modify the next word, and so on, until the final word in the argument or predicate is reached. So treci bukcu ridle ([treci bukcu] ridle) means _ is an interesting-book reader (a reader of interesting books).
2. Ci links two words together as a unit: treci bukcu ci ridle (treci [bukcu ci ridle]) is an interesting book-reader. Don't use ci between the first two modifiers; treci ci bukcu ridle means the same thing as treci bukcu ridle and is considered bad style. Likewise, treci ci bukcu by itself (Ta treci ci bukcu) is unnecessary and worth avoiding; it means the same thing as treci bukcu alone.
3. Back in Lesson 3 I said that there was a way to turn a predicate's blanks back on after making it into an argument. Je and jue produce these specified descriptions from both designations (with le) and names (with la). Je points to the predicate's second blank (for farfu, the father's child). Jue points to the third blank (the mother). For the fourth and fifth blanks, just use jue two more times. As with a regular predicate, you can't skip blanks; fill them in with ba, be, etc.

You can, of course, get carried away with all this: Le farfu je le ditca je ba gu jue la Djan, jue la Meris (The father of the teacher of something to John [we're out of blanks for ditca, so we close it with gu to make sure the next jue goes back to farfu] through
mother Mary). Clearly, you should not go too far: a computer can follow such utterances, but a human will get lost very quickly.

You can't access the first blank because it's taken by the argument or predicate itself. Le farfu is someone who "seems to be a father...."; apparently fei farfu (f is a father). But only apparently; again, it's not a claim. The blanks filled in with je/jue likewise merely identify.
4. Gu prevents le farfu bukcu from becoming a unit (the father-book). You must always end a specified description with gu when it modifies another word (here treci je le farfu modifies bukcu) unless it ends with a Little Word or a name, as in le treci je mi/la Djan, bukcu The book which is interesting to me/John.

Gue is a special version of gu used to close je constructions. It's primarily useful for nested jes, such as the one in note 3 . Sometimes you would have to use two or more gus to close off je phrases within another je phrase-and gu gu just plain sounds funny. (If you get carried away using jes within jes, a gue is the quickest and easiest way out.) Experienced Logli generally prefer gu when a single gu is all that's needed; resorting to gue unnecessarily is like taking a shotgun to a fly. For now, though, if you aren't sure how many gus you need, say gue instead. (When writing, take the time to figure it out properly.)
5. You still have to close these arguments with ga or an inflector when you use them as the first argument. Remember, le treci je mi bukcu (the interesting-to-me book) is an argument; Le treci je mi ga bukcu (The interesting-to-me [thing] is a book.) is a statement.
6. Ge makes the preceding modifier apply to the rest of the predicate or argument. Thus, in treci je mi ge logla bukcu ridle, treci je mi applies to logla bukcu ridle. Without the ge, it would group as follows: (((treci je mi) logla) bukcu) ridle)-that is, reading books in (a kind of) Loglan which is interesting to me. So when you want a modifier to affect everything that follows it, use ge.
7. Go lets you put a modifier after the word it modifies. The advantage is that you don't need je/jue to fill in the modifier's blanks. (It does shut off the preceding predicate's blanks, though.) There are two limits on go:
a) If you use go in a designation, be sure you attach the modifier's places with je/jue, just as you would for any other modifier within a designation. For instance, just putting le in front of logla bukcu ridle go treci mi won't work. You have to connect mi to the rest of the designation with je: le logla bukcu ridle go treci je mi. (Otherwise the mi wouldn't remain attached to treci.)
b) Go automatically "ges" the rest of the predicate. If you put treci mi back in front of logla bukcu ridle, you would have to separate the two phrases with a ge: treci je mige logla bukcu ridle. (You also have to put je before mi, as mentioned above.) So a go-modifier applies to the entire preceding predicate.
8. Me turns the following argument into a predicate which usually means _is a ish'-like thing. Note the difference between le la Pavarotis, gritu (Pavarotti's singer) and le mela Pavarotis, gritu (the Pavarotili-type singer). Me is joined to the following Little Word. (In case you haven't noticed, every argument, properly speaking, starts with or is a Little Word.) Thus: Ta metu (That's just like you or, as a salesperson might say, It's you!),

Ta mela Ford, [tcaro] (That's a Ford car.). These predicates are rather vague, so you might want to use them to modify a regular predicate. Most of the time, though, a human audience will intuitively understand such constructions.
9. You could also use the predicate for similar. Note that modifiers are often later arguments of the predicate, as in bukcu ridle (from ridle ba le bukcu). Using a modifier instead of an argument can be faster, and sometimes it feels more intuitive and just plain human than filling in blanks.

## Lona Cninu Purda

corta _ is shorter than _ by amount _
(short [CORT])
jnnti _ is younger than _ by amount _ (junior [dJUNIrr])
langa _ is longer/taller than _ by amount _ (longer [LANGr])

## Exercise 5.1

Translate into English:

1. Ti he mrenu? [what-kind-of _?]
2. I ti corta junti ci mrenu. [How could you say this without using ci? What would it mean without without grouping words?]
3. Ta langa ge junti mrenu.
4. Ta tedji ridle go bukcu la Loglan.

Translate into Loglan:

1. Who is the woman taller than? [The woman is taller than who?]
2. [And] she [f] is taller than the boy.
3. How tall is she? [And $f$ is what-kind-of tall?]
4. [And] $f$ is very tall.

## Lopo Purmao

CVV djifoa are almost as easy to use as CCV ones. You can use them almost anywhere, but they can't begin a complex unless they are accented. If they are unaccented, you need to add $-\mathbf{r}$, as in diarbukcu (another version of dicbukcu), where the first $\mathbf{u}$ is accented. This keeps the dia-from "falling off," that is, from turning into dia bukcu. Also, if you use two CVV djifoa to form a complex, you must insert an -r between them, as in diarbuu (yet another variant). Can you see why? All predicates contain a consonant cluster, but *diabuu doesn't.

The djifoa -mou/-mro (from mordu more) and -ciu (from ciktu equal) are particularly useful. Used as suffixes with qualities, they mean_is more [quality] than_ is and _ is as [quality] as _ is. Predicates with more than one place have two possible comparisons, though. Ckano means _is kind to _; what does ckamou mean? In these cases, the structure is _is more [quality] to for _than _is ro.for .. So ckamou means _is kinder to _than_is to _. These same rules work for -ciu. (Ckaciu_ is as kind to as is to _.) As we'll see in a few lessons, there's another way to handle comparison which is a bit more like English.

## Lo Nurvia Logla

## La Betis, he?

(Dai) Hu nakso le tcaro? Irea no, tu tcaro nakso spuro.
(Kai) Uu tu dreti. La Betis, nakso.
(Dai) I ie Bai?
(Kai) I Bai bi le nakso je la tcaro. No grocycea, eo! Feu, io no, tu peudja Bai. Li Bai he? lu gudbi letu kenti.
(Dai) Toa gudbi kei hu?
(Kai) Saa, toa trecymou.
(Dai) Sia, uo.
Nao, la Betis, he?
(Kai) Mi hapci repduo letu penso folma kenti! Bai fremi mi. I Bai mutce ge simfoa clika la Adris, io. Ibuo Bai corta Ama.
(Dai) Ei le metoa simfoa clika je la Adris, ga logli?
(Kai) Mi ditca la Loglan, Bai. Mi spuro ge logla ditca. Bai spuro ge tcaro nakso.
(Dai) Le tcaro nakso ga he krani?
(Kai) I Bai kukra krani go laldo je Bai tcaro.
(Dai) Irea no, Bai sadji krani ge tcaro spuro. I la Adris, buo mutce sadji krani.
(Kai) Iu. Buo la Betis, ckano. I Bai mutce ckamou mi la Adris.
(Dai) Ue? I Bai ii ckamou tu Ama. Ibuo Ama mutce ia ckano.
(Kai) I Ama ii ckamou tu Ama mi. Ibuo ea mu remcli takna. Ei?
(Dai) Ia ai. I ae mi fa peudja Bai. I ae Bai ckaciu mi Ama.
(Kai) I ae Bai ckaciu tu Bai mi.

## Lo Kenti

1. Hu kenti go gudbi le meDai?
2. LeBai tcaro he?
3. I Bai he krani tei?
4. Hu krani sadji?

## Lona Cninu Purda

| Predicate words |  | Clue words |
| :---: | :---: | :---: |
| ckaciu | _ is as kind to _ as _ is to _ | [CKAno CIktU = kind-equal] |
| ckamou | _ is kinder to _ than _ is to _ | [CKAno MOrdU = |
|  |  | kind-more] |
| corta | _ is shorter than _ by _ | (short [CORT]) |
| dreti | _ is correct by standard _ | (correct [koREkT]) |
| folma | _ is fuller than _ by | (full [FuL]) |
| fremi | _ is a friend of _ | (friend [FREnd]; Sp. amigo |
|  |  | [aMIgo]) |
| grocycea | _ becomes angry at _ | [GROCi (Y) CEnjA = |
|  |  | angry-become] |
| kenti | _ is a question about _ posed by _ to _ | (question [KuEsTcn]) |
| krani | _ drives _ to _ from _ | (drive [dRAIv]) |
| peudja | _ knows/is acquainted with person _ | [PErnU DJAno $=$ |
|  |  | person-know] |
| remcli | _ is friendly/like a friend to _ | [fREMi CLIka $=$ friend-like] |
| repduo | _ answers question _ posed by _ | [REtPi DUrzO = answer-do] |
| sadji | _ is wiser than _ about _ | (sage [SeiDJ]; Sp. sabio |
|  |  | [SAbIo]) |
| simfoa | _ is the appearance/look(s) of _ | [SIMci FOrmA $=$ seem-form] |
| spuro | _ is expert/skilled at/in _ under conditions _ | (expert [ekSPRt]) |
| trecymou | _ is more interesting to _ than _ is to _ | [ TRECi (Y) MOrdU $=$ |
|  |  | interesting-more] |

## Little Words

nao (discursive modifier announcing a new topic/paragraph) (free modifier)
saa simply put (free modifier)

## Summary: Lesson 5

1. A predicate placed in front of another predicate modifies the predicate it precedes, forming a new predicate.
2. A modifier modifies the following word, then those two modify the next word, and so on, until the end of the predicate or argument.
3. Ci joins two words together, so that they become the "next word" modified. (Don't hyphenate the first two words of a group; it's never necessary.)
4. To fill in the blanks of a predicate used as an argument or modifier, use je for the second blank and jue for blanks after that. (Don't skip blanks!)
5. Remember to close je phrases with a punctuator of some kind. Gu closes off the preceding word, and may end a je phrase if that word didn't need to be closed for some other reason-to prevent it from modifying the next word, for example. Gue will close the nearest preceding unclosed je phrase.
6. In [modifier] ge [predicates], ge makes [predicates] act as one group for [modifer] to modify. It's as though all the words in [predicates] were joined with ci.
7. Go lets you place a modifier after the word it modifies. This leaves the modifier's blanks open so you don't have to use je/jue. There are two limitations on this procedure. First, if you use it for predicate words in an argument, remember that the modifiers are part of an argument, so their places can only be filled using je/jue. Second, go effectively ges what it modifies, so that [predicate(s)] go [modifier(s)] means the same thing as [modifier(s)] ge [predicate(s)]. (This is only a problem if you are modifying more than one predicate; if you are, make sure the ge effect doesn't change the meaning of what you say.)
8. Me [argument] turns [argument] into a predicate meaning _is [argument]-ish: mela Djan_is like/pertains to John.

## Lopo Lenbatmi Cirduo

| 1. Ta he bukcu? | That is what-kind-of book? |
| :---: | :---: |
| 2. I ta corta ge redro bukcu. | [And] that is a short, red book. |
|  | [((short) (red book))] |
| 3. Ei le bukcu ga blanu? | Is the book blue? |
| 4. No. I bei redro. | No. it's red. |
| 5. Le junti kicmu ga langa le laldo ditca. | The young doctor is taller than the old teacher. |
| 6. Le mrenu go corta je mi ga ditca. | The man who is shorter than I [am] teaches. |
| 7. Ta ridle go treci bukcu la Loglan. | That's a reader of interesting books about |
|  | Loglan. |

Lesson 6: Making Connections

## Lo Mipli Steti

1. La Deiv, farfu. I la Deiv, kicmu.

Dave is a father. [And] Dave is a doctor.
2. La Deiv, farfu, $e^{1,2}$ kicmu.

Dave is-a-father and is-a-doctor.
3. La Deiv, farfu la Palys, $\mathbf{e}^{\mathbf{3}} \quad$ la Djan, la Megn.

Dave is-the-father-of- Paula and -of-John [through] Megan.
4. Ba tcaro. I be torkrilu4.

Something is a car. And something is a bicycle.
There are cars and bicycles.
5. La Djenis, pa godzi la París, e la Lyndn, e la Romas ${ }^{\text {s }}$.

Jenny went to Paris [and] London and Rome.
6. La Deiv, farfu ha ${ }^{6}$ kicmu?

Dave is a father how-connected-to being a doctor?
Is Dave a father or doctor or what?

## Lona Cninu Purda

## Little Words

e and
ha how-connected-to (interrogative connective; see note 6)

## Lopo Lengu Klimao

You probably think this is going to be a short chapter. If so, you're wrong. It's not complicated, though; just a lot of information to wade through. Nor do you have to memorize it all. You should read through it and be sure you understand it, but don't be surprised if you have to come back to it a few times.

The subject is what grammarians call conjunctions and logicians sometimes call connectives: and, or, and/or, but, and so forth. There are fourteen of these connectives, and there are four versions of each one. However, as usual, you'll find considerable order to the system. Ultimately, there are only ten elements involved; once you know them, you will be able to reconstruct any form you have forgotten.

All you have to remember is (1) that the basic connectives are a (andior), e(and), o (if and only if means), and $\mathbf{u}$ (whether); (2) that no- is used before a basic connective (noa), and -noi afterward (anoi); (3) that nu reverses the order of elements (ta, utithat /is true] whether this [is or not]; ti, nuu ta whether this /is true or not], that [is truef); and (4) that $n u$ is only used before $\mathbf{u}$.
( Nu is used only to make the nuu concept easier to remember. Connectives are not predicates, so you can't actually convert them.)

We'll begin by looking at the notes for the sentences above, then we'll look at all fourteen connectives and what they mean.

## Notes:

1. Basic connectives such as e (called eks) work much the same way as and and or do in English: Just place them between the two predicates or arguments you want to join.
2. You must pause in speech and put a comma in writing before eks.
3. As mentioned, eks work with arguments as well as predicates.
4. These sentences may answer the question Ba he vi le tcastosia? What is /there] in the parking lot? Instead of saying Ba tcaro, e torkrilu (Something is a car and a bicycle), we need a second variable to act as the first argument of torkrilu. Using ba alone would mean that there are one or more things which are both cars and bikes, as the English translation above makes clear. In the next lesson, we'll see a more elegant way of making the proper connection using eesheks.
5. You can't get away with English-style " $x$, $y$, and $z$ " groups in Loglan; you must say xei, e ysi, e zei. Pay attention to the way these words group: ((xei, e ysi), e zei), just like modification ((mutce sadji) ridle). Eks assume that the expression to the left (the left connectand) is through, so they go on to the next one. We'll find out how to get around this in the next lesson.
6. Ha is to connectives what he is to predicates and hu is to arguments. It asks for a connective which will produce a valid (or, in the case of arguments, helpful) sentence. Generally, Loglan ha questions are translated by English or questions: La Deiv, farfu ha kicmu? Is Dave a father or a doctor? Tu fundi la Loglan, ha la Inglic? Do you prefer Loglan or English? The or in these sentences isn't the logical "or" translated in Loglan as either a or noenoi (see note 7); if it were, you could answer with a simple yes or no: Ei la Deiv, farfu, a kicmu? Is Dave either a father or a doctor? If he is either one (or both), answer Yes; otherwise answer No. But such an answer would no more please someone asking Is Dave a father or a doctor? than the Ia/No equivalent would satisfy a Loglanist who had asked La Deiv, farfu ha kicmu? (You don't have to pause before ha, please note.)

There are fourteen answers to La Deiv, farfu ha kicmu?

La Deiv, farfu, a kicmu Dave is a father andior doctor.
The point is that he may be one or the other or both. The sentence is false only if he is neither one. This is the opposite of noenoi (neither - nor -), below.

La Deiv, farfu, noa kicmu Dave is a father only if he's a doctor.
This is false only if he's a father but not a doctor, that is, if the first connectand is true, but the second is false. It means the same thing as La Deiv, no farfu, a kicmu. (Think about it: If he is a father, then no farfu is false, and if he isn't a doctor, no farfu, a kicmu fails, because both connectands are false, and a requires at least one of its connectands to be true.) This is the opposite of anoi.

La Deiv, farfu, anoi kicmu Dave is a father if he is a doctor.
This is false only if he's a doctor but not a father, that is, if the first connectand is false, but the second is true. It means the same thing as La Deiv, farfu, a no kicmu. (If he is a doctor, then no kicmu is false, and if he isn't a father, farfu, a no kicmu fails, because both connectands are false, and a requires at least one of its connectands to be true.) This is the opposite of noa.

La Deiv, farfu, noanoi kicmu Dave is not both a father and a doctor.
He can be one or the other-or neither, for that matter-but he can't be both.

La Deiv, farfu, e kicmu Dave is a father and a doctor.
He must be both, or the sentence is false.

La Deiv, farfu, noe kicmu Dave isn't a father, but a doctor.
This is true only if he both is not a father and is a doctor, and is false otherwise.

La Deiv, farfu, enoi kicmu Dave is a father, but not a doctor.
This is false if he isn't a father, or if he is a doctor.

La Deiv, farfu, noenoi kicmu Dave is neither a father nor a doctor.
If he's either one, let alone both, this is false.

La Deiv, farfu, o kicmu Dave is a father if and only if / he is/ a doctor.
This means that he must be both, or neither; it's like saying that his being a father is the same thing as being a doctor, that the two imply each other. So if the one is true, the other must also be true; and if one is false, then the other must be false as well.

La Deiv, farfu, onoi kicmu Dave is a father or a doctor, but not both. This is false if he is both, or neither.

La Deiv, farfu, u kicmu Dave is a father, whether he's a doctor or not.
With $\mathbf{u}$, it doesn't matter whether the right connectand is true or false, so long as the left connectand is true. This is the reverse of nuu, below, and the opposite of nou.

La Deiv, farfu, nuu kicmu Dave, whether a father or not, is a doctor. This is false only if he isn't a doctor. (This order is seldom found in English.) It's the opposite of nuunoi.

La Deiv, farfu, nuunoi kicmu Dave, whether a father or not, is not a doctor. This is only false if he is a doctor; it's the opposite of nuu, above.

La Deiv, farfu, nou kicmu Dave is not a father, whether he's a doctor or not. This is true if he isn't a father, and false otherwise. This is the opposite of $\mathbf{u}$, above.

## Lopo Purmao

CVC djifoa are never used at the end of a predicate. They are the trickiest djifoa, because the consonant clusters they produce are sometimes ugly or simply hard to say. At such times, Logli place an $y$-hyphen between the djifoa and whatever follows. These combinations must be hyphenated:

1. double consonants, as mekykiu eye-doctor
2. a voiceless consonant followed by its voiced counterpart (fv, kg, pb, td)
3. $\mathbf{p}, \mathbf{t}, \mathbf{k}$, or $\mathbf{f}$ followed by $\mathbf{j}$ or $\mathbf{z}$
4. any pair from the group $\mathbf{c}, \mathbf{j}, \mathbf{s , z}$
5. bj and sb
6. the following three-letter groups:

| cdz, cvl | jdj, jtc, jts, jvr | ndj, ndz | tvl |
| :--- | :--- | :--- | :--- |
| dcm, dct, dts | kdz | pdz | vts |
| gts, gzb | mzb | svl |  |
|  |  |  |  |

In case you're wondering, no, you probably won't remember all of this. These combinations are best learned through practice. If a combination doesn't sound right, hyphenate it! There are two situations where you should probably hyphenate all you can: when you're fighting noise (in a crowd, with a noisy connection on the phone, etc.), and when you're dealing with a new Logli who doesn't want to use long forms. (It's easier to recognize the djifoa in hyphenated complexes.)

There are several useful CVC djifoa, but the combining forms of the conversion operators are especially common and easy to learn. Just add -r to them: nur-, fur-, jur-. (Because it's so frequent, nu also has the djifoa nun-.) Thus, nurvia (as in Lo Nurvia Logla) comes from nu vizka (is seen by _ against background _). So nurvia means seen or visihle. Likewise, fu vedma ( buys from_at price _) becomes furvea.

## Lo Nurvia Logla

## Le tcidaa cirhea

(Kai) Loi, hoi Deinys! Tu pa cirna hu vi le ckela?
(Dai) La Adris, djipua takna.
(Kai) I Ama he djipua takna?
(Dai) Ue ei? No, mi saadja.
(Kai) Ba lodji djipua. I be ckozu djipua. I liu a, bea, lodji djipua. I liu kou ckozu djipua.
(Dai) Ama lodji djipua takna, sii.
(Kai) Nao, tu logla cirna ha resra godzi na la Natli?
(Dai) E. I ui mi logla cirna, e resra godzi, noa kinci tu.
(Kai) Isii mi titci, noa cirhea tu.
(Dai) Isii mi milfa furvea, ei?
(Kai) I tio rea cirhea prati.
(Dai) Mi togri, noa tisra le resra. I mu godzi le mekso, a ii le jungo. Mi uu disfiu! Tu fundi le mekso ha le jungo?
(Kai) Ifeu mi fundi letupa retpi. E.
(Dai) Le mekso, e le jungo, ei?
(Kai) Ia. Oe tu pa cutse liu onoi, enoi liu a. Li mu godzi le mekso, onoi le jungo lu. Ceu mi mutce tcidaa. Sui mu fa mordu logpli. I tu fa logla furvemcue.
(Dai) Io no, ba logpli vi le resra.
(Kai) Irea ia! I ba bi mu!

## Lo Kenti

1. Hu lodji djipua?
2. Kai fundi hu?
3. Kai titci ha cirhea Dai?
4. Ei ba logpli vi le resra?

## Lona Cninu Purda



1 International pronunciation of México; the native pronunciation [méxiko] will not work, as $/ \mathbf{x} /$ is reserved for names.

## Little Words

bea for example (freemod)
[from BIEkA look at]
kou a causal connective (See chapter 10.)
liu the [Loglan] word

## Summary: Lesson 6

1. Eks are words which connect predicate expressions or arguments. In the case of predicate expressions, they close off whatever is to their left, so only the right-hand predicate expression's blanks are left open. You must pause (or write a comma) before an ek
2. You must use connectives for each word connected, i.e., " x and y and z ," not " $\mathrm{x}, \mathrm{y}$, and $z$."
3. Ha is an interrogative ek: it asks for a connective which will form a logically true connection. Ha questions are generally translated by or questions in English, and vice versa. Ei ta latci, a tidjo? Is that light or heavy? may almost always be answered Ia Yes, because most things under most circumstances are either light or heavy. On the other hand, Ta latci ha tidjo? Is that light or heavy? must be answered specifically with a connective.

## Lopo Lenbatmi Cirduo

1. Ei tu ditca, onoi cirna?
2. No. Ibuo mi ditca, e cirna.

Mi ditca la Inglic. Isui mi cirna la

## Loglan.

3. Mi oe pa cutse liu a, onoi liu ha, ei?
4. Ia. I liu ha, gudbi liu onoi, e liu a, letu kenti.
5. Liu onoi, e liu a, e liu ha, lodji djipua.

Are you either a teacher or learner?
No, but I'm [both] a teacher and a learner.
I teach English; I also learn Loglan.

I should have said "and/or" or "or," huh?
Yes; "or" would be better than "either/or" and "and/or" for your question.

Eitherior, and/or, and or? are logical connectives.

Lesson 7: Improving Your Connections

## Lo Mipli Steti

1. La Deiv, farfu, $\mathbf{e}^{\mathbf{1}} \quad$ kicmu la Palys.

Dave is-a-father and is-a-doctor-of Paula
Dave is a father, and he treats Paula.
2. La Deiv, farfu, e kicmu gu ${ }^{2}$ la Palys.

Dave is-a-father-of and is-a-doctor-of Paula
Dave is the father of, and treats, Paula.
3. La Deiv, farfu $\mathrm{ce}^{\mathbf{3}} \quad$ kicmu la Palys.

Dave is-a-father -and- doctor-of Paula
Dave is the father of, and treats, Paula.
4. La Deiv, gudbi farfu, $e^{4} \quad$ kicmu

Dave is-a-good-father and is-a-doctor
Dave is a good father and [he is also] a doctor.
5. La Deiv, gudbi farfu ce kicmu

Dave is-a-good- (father -and- doctor)
Dave is good as both a father and a doctor.
6. La Deiv, mutce gudbi, $e^{6}$ sadji kicmu

Dave is-a-very-good [man] and is-a-wise-doctor
7. La Deiv, mutce gudbi ce ${ }^{7}$ sadji kicmu

Dave is-a-very- (good -and- wise) -doctor
Dave is a very good, and a very wise, doctor.
8. La Deiv, farfu. Ice ${ }^{8}$ Dai kicmu.

Dave is-a-father. And D is-a-doctor
9. La Deiv, ke ${ }^{9}$ na farfu ki fa kicmu

Dave both now is-a-father and will be-a-doctor.
10. La Deiv, ke mutce gudbi ki nurmue sadji gu $^{10}$ farfu.

Dave both is a very good and is a moderately wise [,] father.

## Lona Cninu Purda

## Little Words

ce a form of e used to connect the words immediately on either side of it; see notes 3, 5 , and 7.
ice a form of e used to connect sentences; see note 8.
ke both (the first part of the forethought/kek version of e; see notes 9 and 10)
ki (in this case) and (the second part of the forethought/kek version of e; see notes 9 and 10 )

## Lopo Lengu Klimao

Last time we saw how to connect predicates and arguments; in this lesson we cover more advanced connections.

Notes:

1. E and its kin shut off all but the first blank of the first predicate. The only blank farfu and kicmu share is the first one. Naturally, we have a few ways around this problem.
2. The simplest solution is to place a gu after the connected pair. This makes whatever follows them act as shared arguments. This is especially useful when you want to change the tense of the second predicate, as in Tomás' Ima [ga] sorme, ena socgoi gu mi "I" is a sister of, and is now visiting, me (see Lo Nurvia Logla). (E+na $\rightarrow$ ena, a single word.)
3. Adding a $\mathbf{c}$ - to an ek produces a shek: ca, ce, co, cu, noca, nucunoi, etc. Sheks leave blanks undisturbed, so farfu and kicmu share all of their blanks. (Note, incidentally, that you don't have to pause before ce.) Be very careful using predicates in this way! Shared blanks can produce hilarious results, as in Dai kicmu ce farfu la Palys, la Megn. This means that D is Paula's father through mother Megan, and that he is treating Paula-for (disease) Megan! Remember, if you're in doubt, just use two sentences.

The shekked form of ha, incidentally, is ciha: Dai kicmu ciha farfu la Palys? Is D the doctor or the father of Paula? This may be answered with a shek (Ce), and is not the same thing as Dai kicmu ca/conoi la Palys? Is D either the doctor or father of Paula?, which expects a yes-or-no answer.
4. As mentioned in the last lesson, eks assume that everything to the left is complete, and shuts it off. (This is why it turns off the second-and-higher blanks of a preceding predicate.) In the same way, we must interpret the group gudbi farfu, e kicmu as
((gudbi farfu), e kicmu). If you want to say that he's a good father and a good doctor (both at once), you'll have to use a special kind of connective.
5. The other solution is to use a shek (large surprise). The real difference between eks and sheks is that eks are left-grouping ((ba, e be), e bo, while sheks are right-grouping (ba ce (be ce bo)). Eks work like regular modification, while sheks act like ci to turn a pair of terms into a single unit. You may figure out the implications of this fact at your leisure. One is that you can't use a shek when the right connectand is a tensed predicate. The example mentioned in note 2 could not be changed to *sorme ce na socgoi, because ce would try to join sorme with na: *((sorme ce na) socgoi. This doesn't work. (Converted predicates aren't affect by this rule; nu socgoi is visited by is one predicate, so the connection sorme ce nu socgoi is a sister of and is visited by is legal.)

You may wonder what the difference is between sheks and ci. Ci merely joins a modifier to the word it modifies, while the sheks abbreviate a longer expression involving a pair of utterances-in this case, La Deiv, gudbi farfu. I la Deiv, gudbi kicmu.
6. Given the previous two notes, you're probably not astonished that mutce gudbi, e sadji kicmu is a pair of predicates connected by $\mathbf{e}$ : ((mutce gudbi), $\mathbf{e}$ (sadji kicmu)). You can probably also guess how to say that Dave is a very good and very wise doctor.
7. Not hard at all, is it? Ce links gudbi and sadji so that mutce applies to both of them. Then that group modifies kicmu: (((mutce (gudbi ce sadji)) kicmu).
8. You can connect even whole sentences. This third kind of connective is called the eeshek; it consists of I- and a shek. This is to prevent them from turning into the
conviction attitude indicators ( $\mathbf{I}+\mathbf{a}, \mathbf{I}+\mathbf{0}$, etc.). There's generally a pause before these (you've normally just ended a sentence, after all), but sometimes it's like the English semicolon: a definite break, but not enough to produce a separate sentence. In this case, use a comma in writing.

As you probably guessed, the eeshek version of ha is Iha.
9. Keks are the most versatile connectives; you can use them to connect predicates, arguments, and even sentences. Like both...and and if...then in English (and unlike all the connectives we've looked at so far), they require planning in advance.

Keks are a little odd. The best way to understand how they're produced is to take one apart, so we'll start with the kekked version of noenoi: kenoi...kinoi. The ke- is just $\mathbf{k}$ and the basic vowel (e). This lets the audience know that the kek is essentially an e-connective. After this, we substitute -ki- for -e-. So far we have *ke...nokinoi. Why move the no-right after ke-? (-no becomes -noi, the regular suffix form.) Because moving it retains the original order. Remember, ti, noenoi ta is the same thing as noti, e no ta, so the first no must come before the first connectand-as it does in kenoi ti kinoi ta, which means

| k | e | no(i) | ti, | e | no(i) | ta |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| [kek begins] | [e-connective] | not | this | and | not | that |

(In case you're wondering, this means the same thing as neither this nor that in English: both not-this and not-that.)

To sum up: the first word begins with $\mathbf{k}$ - and the basic vowel. If the ek begins with no-, change no- to -noi and place it at the end of the first word. The second word is $\mathbf{k i}$, followed by -noi if the ek ends in -noi. The u-keks have an additional peculiarity: if the ek contains nu-, the kek won't; and if the ek doesn't contain nu-, prefix nu- to the first word of the kek: $\mathbf{u} \rightarrow$ nuku...ki, nuu $\rightarrow$ ku....ki, nou $\rightarrow$ nukunoi...ki, and nuunoi $\rightarrow$ ku...kinoi. Here's the complete list of keks:

| a | ka...ki | either...or..., and possibly both |
| :--- | :--- | :--- |
| noa | kanoi...ki | if...then... |
| anoi | ka...kinoi | (...if...) |
| noanoi | kanoi...kinoi | either not...or not..., and possibly neither |
| e | ke...ki | both...and... |
| noe | kenoi...ki | both not...and... |
| enoi | ke...kinoi | both...and not... |
| noenoi | kenoi...kinoi | neither...nor... |
| 0 | ko...ki | if and only if...then... |
| onoi | ko...kinoi | either...or..., but not both |
| u | nuku...ki | (...whether...) |
| nou | nukunoi...ki | (not...whether...) |
| nuu | ku...ki | whether..., ... |
| nuunoi | ku...kinoi | whether..., not... |
| ha | kiha...ki | (varies) |

(The translations in parentheses aren't forethought connectives in English, which has fewer connectives than Loglan.)

Always be careful to keep keks balanced: connect only like things. Ke predicate ki predicate is fine, and so is Ke sentence ki sentence; Ke predicate ki sentence isn't allowed.
10. Without a punctuator such as gu, keks will run to the end of a predicate string. Without gu, the example sentence would group as La Deiv, (ke [mutce gudbi] ki [nurmue (sadji farfu)]) Dave both is a very good [person] and is a moderate wise-father. So remember that keks contain everything within their predicate string unless you specifically close them. In the same way, mutce ke gudbi ki sadji mrenu groups as (mutce (ke (gudbi) ki (sadji mrenu))) very both good and wise-man. You would need a gu to separate mrenu man from the kekked modifier: (mutce (ke (gudbi) ki (sadji gu))) mrenu very both good and wise, man. (Mind you, this could be said more simply and elegantly as mutce gudbi ce sadji mrenu.)

## Lopo Purmao

As you'll see in Lo Nurvia Logla, there are two predicates for Mexican: meksi and mekso. This may remind you of logla and logli. In fact, ethnic predicates come in groups of four:
logla _ is a part/feature of the Loglan language
logle _ is an area frequented/claimed by Loglanists
logli _ is a Loglanist
loglo _ is a part/feature of Loglan culture

Ethnic predicates ending in -a may refer only to a dialect. For example, meksa probably refers to the Mexican dialect of Spanish. (Of course, it could also refer to one of the native languages of Mexico.)

La Logle could be a room or a table in a restaurant where Logli get together. La Junge could refer to Chinatown, or to a Chinese embassy or consulate.

Ethnic predicates (and animal predicates, which work along similar lines) are the only ones where the final vowel reflects a difference in meaning. Normally, Loglan doesn't allow two predicate words which differ only in their final vowel. (This means that if you're unsure of the vowel, you can get away with slurring it, so long as you don't make it an $y$ sound.) This also means that the distinctive meaning of the final vowel is lost when you affix the predicate, because that vowel changes to $y$. Usually this doesn't cause any problems, but you may want to add other affixes to specify (for example) what you mean by Loglanize: loglenmao, logsifmao, logpipmao, or logkulmao for logla, logle, logli, and loglo, respectively. Often, however, logmao will be clear enough.

Ethnic predicates are not capitalized in Loglan as they are in English, unless they are used as names. Thus, le junge (a Chinese area), but la Junge (Chinatown, etc.).

Sometimes an ethnic predicate isn't the most precise choice. For example, Chinese consulate is junge konsysia, but you could also call it mela Junguos, konsysia. More importantly, is a "Mexican" ruler a ruler of Mexico (mela Méxikos, garni) or a ruler who happens to be Mexican (meksi garni)? (Mekse garni would refer to someone ruling an area which is, in some sense, Mexican; such places are found almost as easily in some parts of the U.S. as in Mexico.)

## Lo Nurvia Logla

## Vile mekso resra

(Kai) Hoi! I hoi, Tobsua! Rea no, ba furvea tedji vi.
(Dai) Ii kanoi tu gleca ca spana plizo ki ba tobsua mu. Io no, ba vi tobsua, e logli.
(Kai) Feu, mi peudja leva tobsua. I tei ia logli!
(Dai) Ua. Ii ka tei godzi mu kinoi tu kraku letei namci.
(Kai) Ii tu dreti.
Hoi, Tam!
(Tai) Feu liu Tomás namci mi. Loi, Karl! Rea tu, hoi No Nu Peudja, frelo, anoi logla nu cirhea la Karl. Ica tu kunci Kai. Ua! Tu io bi la Deinys!
(Dai) Mi ia bi la Deinys. Ei tu fremi la Brud?
(Kai) Tai fremi ce fatru mi.
Nao, hoi Fremi ce Fatru Tobsua, eo mi tcidybeo ba?
(Tai) La Tomás Delri,os, ui ai surva tu.
(Dai) La Delri,os! I ei tu kunci la Inés?
(Tai) Ima sorme, ena socgoi gu mi.
(Dai) Ei tu feu meksi?
(Tai) Mi meksymerki. Buo feu levi resra nu ponsu la Famji Cyn. I taa la Migél Ernandes, ponsu le jungo resra. Levi resra ponsu ia ga kultu batmi, ei?
(Kai) Ei ti feu resra? I ba vi tcidi vedma ha kamkytaa?
(Tai) E, rea.

## Lo Kenti

1. La Tomás, he?
2. Tai kunci hu?
3. Ima he?
4. Tai he vi la resra?

## Lona Cninu Purda

Predicate words
batmi _ trades _for _ with _

| frelo | _ is crazy |
| :--- | :--- |
| kamkytaa | $\quad$ jokes with about |

kraku _ cries/calls out
kultu _ is the culture of people _
kunci _ is related to _ by relation _ (kin [KiN])
meksi _ is a Mexican [person]
meksymerki _ is a Mexican-American
namci _ is a name of _to/used by _
ponsu _ owns _ under law/custom _
socgoi _ visits [person(s)] _
sorme __ is a sister of _ with parents _
spana _ is part of the Spanish language
surva _ serves _ by doing _
tcidi _ is food of/edible to _
tobsua _ waits on diner _ with food _

Clue words
(barter [BArTr]; Sp. cambiar
[kAMblar])
(frenzy [FREnzi]; Sp. loco [LOko])
[KAMKi (Y) TAknA = comic-talk]
(cry [KRAi])
(Sp. cultura [KULTUra])
$[\operatorname{MEKSi}(\mathbf{Y})$ MERKI $=$ Mexican-American]
(name [ NeiM ])
(possess [POzeS]; own [ON])
[SOCli GOdzI = socially-go]
(sorority [SORoriti], a sisterhood)

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(serve [SRV])
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(feed [fID])
[TOBme SUrvA = table-servant]
vedma _ sells _ to _for price _ (vend [VEnD]; market (v.) [MArket])

Little Words
taa in turn (free modifier)

## Summary: Lesson 7

1. To make ekked predicates share their arguments, you can place gu after them: La Deiv, farfu, e kicmu la Palys (Dave is [both] a [the] father and a doctor of Paula.) versus La Deiv, farfu, e kicmu la Palys (Dave is a father, and [he's also] a doctor treating Paula.). This is particularly useful when the right connectand is a tensed predicate, in which case the connective and the inflector are written together (e.g., ena instead of ena).
2. Sheks are formed by prefixing $\mathbf{c}$ - to the characteristic vowel of an ek, as in a $\boldsymbol{\rightarrow c a}$, noa $\rightarrow$ noca, nuu $\rightarrow$ nucu. (The interrogative shek is ciha.) Sheks combine two words into a unit, much as ci does, but with the added idea of logical connection. So shekked predicates share their arguments and act as one word for purposes of modification. You don't have to pause before sheks.
3. Eesheks connect entire sentences. They are formed by prefixing i- to a shek (I+ca $\rightarrow \mathbf{I c a}$ ), or, for the interrogative, directly to ha (Iha).
4. Keks connect any two functionally similar units (arguments, predicates, modifiers (or modifier groups), sentences, etc.). They consist of two words. The first word begins with $k$ - and the basic vowel. If the ek begins with no-, change no- to -noi and place it
at the end of the first word. The second word is ki, followed by -noi if the ek ends in -noi. The u-keks have an additional peculiarity: if the ek contains nu-, the kek won't; and if the ek doesn't contain nu-, prefix nu- to the first word of the kek, thus $\mathbf{u} \rightarrow$ nuku...ki and nuu $\rightarrow \mathbf{k u} . . . k i$. The kekked form of ha is kiha...ki.

Exercise 7.1 Based on (4), above, recreate the list of keks. (The eks are a, noa, anoi, noanoi, e, noe, enoi, noenoi, o, onoi, u, nou, nuu, and nuunoi.) Check your answers with note 9 .

## Lopo Lenbatmi Cirduo

1. Tu cirna, efa spuro gu la Loglan. You learn, and will be an expert in, Loglan.
2. Mi pa penso, ena repduo gu letu I've thought about, and now answer, your kenti.
3. Ta saadja noce nu treci la Loglan.
4. I tu saadja ciha nu treci Lai?
5. Tu spuro ciha hapci logpli?

Do you expertly, or happily, use Loglan?
6. La Deiv, sadji noca gudbi farfu. Dave is, if a wise, then a good father.
7. Oe logpli cutse ce ridle.

You should use Loglan [in] speaking and reading.
8. Mi fa hapci, icanoi tu logpli cirduo.

I will be happy only if you practice using Loglan.
9. Levi bukcu ga gleca. Iha bei logla?

This book is [in] English. Or is it [in]
Loglan?

| 10. Kanoi tu sadji ditca, ki ba cirna. | If you wisely teach, [then] one learns. |
| :--- | :--- |
| 11. Kiha tu takna ta, ki ta saadja? | How is your talking to that one connected to |
|  | his/her understanding? |

Lesson 8: Mass Productions

## Lo Mipli Steti

## 1. La Deiv, vedma le bukcu

Dave sells the book[s].

| 2. La Meris, | vedma | $10^{1,2}$ | bukcu |
| :--- | :--- | :--- | :--- |
| Mary | sells | the-instance-of-the-mass-of-all | books |

## 3. Mi takna tu la Loglan

I talk to you about Loglan.

| 4. Mi takna tu | $\mathbf{1 0}^{\mathbf{3}}$ | logla |
| :---: | :--- | :--- |
| I talk to you about | the mass of | Loglan [utterances, features, etc]. |

5. Mi takna tu la ${ }^{4}$ Logla

I talk to you about Loglan Feature/Thing.
6. $\mathbf{L o}^{5}$

The instance of the mass of all kind ones!
How kind [of you]!
7. Le blabi ze ${ }^{6}$ nigro ga bilti

The white -and- black [one] is-beautiful
The black-and-white one is beautiful.
8. La Deiv, ze ${ }^{7}$ la Meris, pa godzi

Dave -and- Mary went [together].
9. Ta blabi ce nigro bukcu

Those are-(white [books] -and- black) books.
Those are white books and black books (some of each).
(The sense of this virtually requires more than one book.)
10. Ta blabi $\mathbf{z e}^{8}$ nigro bukcu

Those are-(white -and- black) books.
Those are black-and-white books (each is a mixed color).
(This could be true of a single book.)
11. Ta blabi ze mutce ci $^{9}$ redro bukcu

That is-a-(white -and- (very - red)) -book.

## Lona Cninu Purda

Little Words
lo the one I mean that appears to be an instance of the mass of all
ze -and [jointly]-

## Lopo Lengu Klimao

The little word lo is used like le to turn a predicate into a description. It means the one which appears to be a manifestation of all the _there isiare. Of course I'm going to explain what that means!

When you go to see Mr. Smith, you aren't really seeing "all" of him (it sounds rather indecent!); you are going to see a certain manifestation of a complex and dynamic individual. "Mr. Smith" today is not the same as he was a few days ago, and he'll have changed again soon. So when you talk about "Mr. Smith," you're usually talking about a point in a continuum, that is, about just part of all the slightly different individuals who are all still somehow "Mr. Smith."

This is what lo does: it transforms a predicate into a reference to a continuum of objects. Lo humni refers to the mass of human beings, lo ditca to the mass of teachers, and so on. You may talk about all humans or teachers with lo or just one, but all of them will be taken as a single instance of the whole. (We don't do this with names because named things are generally continuous anyway. La Smit and La Matma both refer to individuals who change over time.)

Let's say you want to talk about books in general: Books are interesting. What you are talking about is the mass individual composed of all books, or lo bukcu: Lo bukcu ga treci. (The ga is necessary here, just as it is with le.) Similarly, Janice went to the movies would be La Djenis, pa godzi lo sinma (sinma $=$ _ is a movie [cinema] made by _) Why? Because she didn't go to a particular movie (that would have been expressed differently both in English and in Loglan), but to a manifestation of the mass of all movies. Maybe she saw just one; maybe one and a half, maybe she changed her mind part-way through the first one. But in any case, her meeting with "Mr. Cinema" is like a meeting with "Mr. Smith": she saw some instance of him, that's all.

Notes

1. Note the difference between

Mi vedma le bukcu I sell the book(s).
and

Mi vedma lo bukcu I sell books (in general). [Something a salesperson in a bookstore might say]
2. You may be tempted to use lo to translate the plural. After all, most lo constructions have plural equivalents in English: books, movies, cars, etc. But in fact, lo may refer to a single object if that object is seen as part of a larger whole. If you want to think of a book/movie/car as being part of a larger whole, use lo. That's what it's there for. Certain cultures view everything as a manifestation of larger individuals: each cloud is a reappearance of The Cloud, each animal another instance of Mr. Animal, and so on. In a similar vein, certain schools of philosophy, such as the various forms of Platonism, see everything as ectypes of archtypes existing in an idealized realm. Such people will tend to use lo a lot. This is another way Loglan lets Logli do their own thing philosophically.
3. The explanation of lo given above stresses the similarity between lo and la. Here's a case in point: What is the difference between la Loglan and lo logla? Answer: Virtually none. Lo emphasizes the mass quality of Loglan, while la emphasizes its individuality.
4. On the other hand, there's a major difference between la Loglan (or lo logla) and la Logla. La Logla individualizes some part of Loglan, or some instance of it. It could refer to The Loglan Story, or to Loglan: The Motion Picture. (Coming soon to a theater near you!)
5. Since lo and la have so much in common, it shouldn't be any surprise that just as you can say La Ditca! to call attention to Teacher, so you can say Lo ckano! to point out someone who is particularly kind, and Lo helba! to acknowledge someone's assistance.
6. Ze is a "hyphenated and": the kind found in black-and-white (blabize nigro). It means that two things act as one. If le bukcu ga nigro ze blabi is true, then le bukcu ga nigro and le bukcu ga blabi are false. A black-and-white object is not just black or just white; it's a mixture of the two.
7. Similarly, La Deiv, ze la Meris, pa godzi means that Dave and Mary went together-"as one person," we might say. Thus, mu is actually a contraction of mize tu: you and I together. In a sense, lo bukcu refers to levi bukcu ze leva bukcu ze levu bukcu, etc. You can use ze for predicates and arguments.
8. You're probably wondering what the difference is between ce and ze. Simply put, ze makes one claim (That is a black-and-white book); it concerns a single, intertwined relationship. Ce, on the other hand, is just a shorthand way of speaking two sentences at once. Thus, Ta blabi ce nigro bukcu means the same thing as the two sentences Ta blabi bukcu and Ta nigro bukcu put together. (These sentences require a plural ta (these) to make sense.) Ta blabi ze nigro bukcu, on the other hand, cannot be taken apart; it simply is a black-and-white book. (This also works in descriptions: le blabi ce
nigro the black one[s] and the white one[s], le blabi ze nigro the black-and-white one[s]. Only the second could normally refer to one object.)
9. Ze only works on the words immediately on either side. If you want to widen ze's scope, you'll have to use ci to unify the extra word with the word that would normally be affected.

## Lopo Purmao

We've looked at the mechanics of making complexes, and we've encountered several examples. But when do you use a complex instead of simple modification? There are two major cases:

1. If you use the term frequently, and it would be too long as a string of separate words. Of course, frequency varies from speaker to speaker. Dana, who isn't interested in cars, seldom talks about lo breko sisto (brake systems); Betty, however, deals with lo brekysio all the time.
2. You want to give a special meaning to the term, perhaps even changing the final predicate word's structure. Siodja (_understands system _) just doesn't mean the same thing as sisto djano ( systematically knows _about _). Remember, modification doesn't change place structure. Likewise, in the reading, Dana's No, mi sirto djano (I don't know' for sure) isn't quite as strong as Betty's No, mi sirdja (I just don't know). Complexes are often more emphatic than modification.

This latter reason brings us back to precision. Logli like to use the word or phrase which exactly captures their thought. Loglan has built up a larger vocabulary than it theoretically needs, simply to ensure that one word doesn't need a number of vaguely similar meanings.

For example, consider a few of the various words for knowing:
djano _ knows _ about _
duodja _ knows how to [do] _
feodja _ knows _ from source _ [FEktO DJAno = fact-know]
("Book-learning" as opposed to experience.)
kledja _ knows what _ is (what class it belongs to) [KLEsi DJAno = class-know]
leudja _ knows [language] _
[LEngU DJAno = language-know]
(Not the same thing as siodja. It's possible to have a thorough understanding of a language without "knowing" the language.)
peudja _ knows person _
[PErnU DJAno $=$ person-know]
(Again, not the same as siodja, which implies deeper, if less personal, knowledge.)
saadja _ understands the meaning of symbol _
[SAnpA DJAno $=$ sign-know]
siodja _ understands system/person _
spedja _ knows _ by experience
[SPEni DJAno = experience-know]

## Lo Nurvia Logla

## La Betis, telfyduo

[Note how Betty uses first kia then kio when she doesn't know how to complete her sentence. The first kia eliminates the preceding pause, then she realizes that she needs another kia, which then erases the pause which precedes it, until she gives up.]
(Dai) Loi. I la Deinys, cutse.
(Bai) I mi bi la Betis. Eo mi takna la Karl?
(Dai) Uu no, Kai hijra. I mi ui getsui le fu takna.
(Bai) Au. I nahu Kai fangoi?
(Dai) I no, mi sirto djano.
(Bai) Uo!
(Dai) Eo mi kenduo tu?
(Bai) Io.
(Dai) Ie la Betis? Ei tu bi le fremi je Kai?
(Bai) I mi ia fremi Kai. Ibuo no, mi sirdja hu, kia, kia, kio uo!
(Dai) Uo mi bunbo! Irea mi oa klini cutse! Le fremi pa nakso leKai tcaro.
(Bai) Ia, mi bi le fremi.
(Dai) Lo mutce gudbi! Kai takna mi tu. No firpa! Lo nu cutse ga gudbi, rea. Lo tcaro ga treci tu, ei?
(Bai) Ia. Ei Kai takna tu lemi tcaro?
(Dai) Ei tei kukra, e laldo tu?
(Bai) Uo no! Le konce, feu, enoi lo djipo ga laldo. I le motci, bea, ga junti!
(Dai) I hu djipo parti lo tcaro? Ibea lo motci ze lo breko ci sisto
(Bai) Ia. Feu le motci ze le brekysio ze le frama ze le tolpaesio ze le lekpaesio ga djipo lo tcaro.
(Dai) Ua. No, mi siodja lo tcaro.
(Bai) Mi ui ditca lo tcaro perti tu. I mi ze Kai batyditca.
(Dai) Ua. Tu ia spuro logpli.
(Bai) Lo ckano! Uu no. Ifeu mi fasru ge logla takna tu lo tcaro. Ibuo lo notbi fu takna ga mutce nardu.
(Dai) Lo kumtu nu speni! Lo kusmo fu takna ia ga fasru.
(Bai) Sia! Eo mi godzi letu hasfa na la Pasnai?
(Dai) Ui ia! I Kai fa ia hijra!
(Bai) Sia loa!
(Dai) Kerju!

## Lo Kenti

1. LeKai fremi pa he?
2. Hu laldo parti leBai tcaro?
3. Hu djipo lo tcaro?
4. No, Dai siodja hu?
5. Hu fasru?

## Lona Cninu Purda

Predicate words
batyditca _ teach each other subject(s) _
breko _ is a brake of vehicle/system _
brekysio _ is a brake system of vehicle/system _
bunbo _ is a fool/is foolish about

Clue words
[BATmi (Y) DITCA = trade-teach]
(brake [BREiK])
[BREKo (Y) SlstO = brake-system]
(boob [BUB]; bozo [BOzo])

| djano _ knows _ about _ |  | ("Whadjaknow?") |
| :---: | :---: | :---: |
| djipo | _ is important to _for _ | (important [ImPOrtant]) |
| fangoi | _ returns to _ from _ | [FANve GOdzI = |
|  |  | reverse-go] |
| fasru | _ is easy for _ under conditions | (facilitate [FASiliteit], make |
|  |  | easy) |
| firpa | _ is afraid of/that _ | (fear [FIR]; "paranoid") |
| getsui | _ transmits/relays _to _from _ | [GETsi SUndI = get-send] |
| hijra | _ is present at _ | (here [HIR]) |
| kenduo | _ asks/questions _ about _ | [KENti DUrzO = |
|  |  | question-do] |
| kliri | _ is clearer than | (clearly [KLIRII]) |
| konce | _ is a/the shell [chassis] of _ | (conche [KONtC]; shell |
|  |  | [CEI]) |
| kumtu | _ is common to/shared by members of set _ | (common to [KoMn TU]) |
| kusmo | _ is a custom/habit of _ under conditions _ | (custom [KyStM]) |
| lekpaesio | _ is a/the electrical system of _ | [LEnKi PAtcE SIstO = |
|  |  | electric-apparatus-system] |
| motci | _ is a/the motor of device _ | (motor [MOTr]; machine |
|  |  | [MyCIn]) |
| nardu | _ is hard/difficult for _ under conditions _ | (hard [hARD]; arduous |
|  |  | [ARDiUys]) |
| notbi | _ is other than/not the same as _ | ("a is NOT B") |
| pasnai | _ is the evening of day _ | [PASko NAtII $=$ |
|  |  | before-night] |
| perti | _ concerns/pertains to _ | (pertain [PRTeIn]) |



1. Lo is a descriptor like le which refers to the instance I mean of the mass of all .. It may therefore be used to talk about some part of a larger whole or about all the members of some group at once.
2. Ze is a "hyphenated and": it mixes two separate ideas into an inseparable whole, as in blabi ze nigro (black-and-white). Like sheks, ze applies two the two words immediately before and after it: to include other words, you would have to use ci.

## Lopo Lenbatmi Cirduo

1. La Deinys, ze la Pal, socgoi la Megn, ze la Palys.
2. La Deinys, e la Pal, socgoi la Megn, e la Palys.
3. Vi lo resra gu ba furvemcue lo tcidi.
4. La Betis, fundi lo kukra tcaro.
5. Ibuo no, Bai fundi lo kukra blabi ze nigro tcaro.
6. Le gudbi matma ze ditca ga takna le detra.
7. Le gudbi ci matma ze ditca ga takna le detra.

Dana and Paul (together) visit Megan and Paula (together).

Dana and Paul each visited Megan and Paula (separately).
In restaurants one orders food.
Betty prefers fast cars.
But she doesn't like fast
black-and-white cars.
The good mother-and-teacher talks to the daughter.
The [good-mother]-and-teacher talks to the daughter.

Lesson 9: Abstract Art

## Lo Mipli Steti

1. $\mathbf{T a} \mathrm{po}^{\mathbf{1}} \quad$ godzi

That is-an-event-of go[ing]
2. Ta po ${ }^{\mathbf{2}} \quad$ cei godzi la Denvr, la Cikagos

That is-an-event-of c going [to] Denver [from] Chicago
3. $\mathbf{T i} \mathbf{p o}^{\mathbf{3}}$ takridle ditca

This is-an (is-an-event-of reading-aloud) teacher
This one teaches how to read aloud.
4. $\mathbf{T i} \quad$ po, ${ }^{4} \quad$ takridle ditca

This is-an-event-of reading-aloud teaching
This is teaching by reading aloud.
5. Lepo $^{5}$ tu takridle ditca ga corta

The-event-of you reading-aloud teaching is-short.
Your reading-aloud teaching session is brief.
6. Lopo ${ }^{6}$ tu takridle ditca ga corta

The-mass-of-events-of you reading-aloud teaching is short.
Your reading-aloud teaching sessions are short.
7. Le, po takridle ditca ga corta

The event-of reading-aloud teacher is-short
The one who teaches reading aloud is short.

| 8. Mi garti tu | lepo $^{8}$ | tu helba mi |
| :--- | :--- | :--- |
| I am-grateful-to you | $[$ [for] the-event-of | you[r] helping me |
| I'm grateful to you for | $[y o u r]$ | helping me. Thanks for helping me. |

9. Migartitu lepu ${ }^{9}$ tu helba mi

I am-grateful-to you [for] the-quality-of you[r] helping me
I'm grateful to you for your helpfuiness toward me. Thanks for being helpful.

| 10. Mi garti tu | lezo $^{10}$ | tu helba mi |
| :---: | :--- | :--- |
| I am-grateful-to you | $[$ [for] the-amount-of | you[r] helping me |

I'm grateful to you for how much you help me. Thanks for being so helpful.
11. Le nirli ga spopa lepo ${ }^{11}$ le kicmu fa kamla

The girl hopes the-event-that the doctor will come [will occur].
The girl hopes that the doctor will come.
$\begin{array}{cll}\text { 12. Le nirli ga cutse } & \text { li } & \text { le kicmu fa kamla lu } \\ \text { The girl says } & \text { " } & \text { The doctor will come." }\end{array}$
13. Le nirli ga cutse liu ${ }^{12}$ ia

The girl says [the-word] "yes."
The girl says "yes."

## 14. Ei tu meliu gu ${ }^{13} \operatorname{logli}$ ?

Are you a "gu-ing" Loglander?

## Lona Cninu Purda

Predicate words
spopa _ hopes [that] _ [will occur]
takridle _reads _ aloud to _

Clue words
(hope [hOP]; Sp espera [eSPerA])
[TAKna RIDLE = talk-read]

Little Words
liu the word _ (a combination of li and lu)
po _ is an event/instance of _
pu _ is a quality of _
zo _ is an amount/quantity of

## Lopo Lengu Klimao

Loglan has three operators for creating abstractions: po, pu, and zo. Because it's the most common, we'll start with po; all three act the same way anyhow, so in learning to use po, you'll find out how the other two work as well.

Notes:

1. Placed before a predicate expression, po creates a ñew predicate meaning _is an event/instance of [whatever the predicate refers to]. Thus,

Ta po godzi. That is an event of going.
Ti po corta. This is an instance of shortness.
2. The blanks for godzi (and corta) are still fully active after po, however, and may be filled as usual:

> Ta po mi godzi la Denvr, la Cikagos. That is an instance of my going to Denver from Chicago.
> Ti po le botci ga corta le mrenu. This is an instance of the boy's being shorter than the man.
3. You may use a po predicate as a modifier in the normal way: Ti po takridle ditca (This one is an act-of-reading teacher [someone who teaches reading aloud]). Note that po affects only the next predicate.
4. By pausing after po, you extend it to include all following predicate words: Ti po, takridle ditca (This is an act of read-teaching [teaching by reading aloud]). If you want to include arguments in a po modifier (usually not necessary), you'll have to use je/jue as you would for any other modifier: Ti po ridle je le stuci gu, ditca (This one is an act-of-reading-the-story teacher [teaching the act of reading the story])-not the same thing as Ti ridle je le stuci gu, ditca (This one is a teacher reading the story). As this example shows, such constructions aren't generally very useful.
5. When you turn a po-predicate into an argument, the le combines with po, to produce lepo. (This is a long-range po; le plus a po-modifier must be separated by a pause comma-see note 7.) Because lepo arguments are so common, their blanks are filled like a regular predicate. This sentence refers to one session or set of sessions.

Just as you need to make sure you've closed your je phrases, so you must shut off lepo phrases. If the phrase is the first argument, just use ga or one of the inflectors. If it doesn't end the sentence, you can either try one or more gus or just use guo. (Like gue, guo is a version of gu designed to terminate a specific type of phrase, in this case lepo phrases.) Unclosed lepo phrases will absorb the next argument, as in Ta ditca lopo ridle lo junti (That one teaches how to read young people.), which should probably be Ta ditca lopo ridle gu[o] lo junti (That one teaches reading to young people.). (Either gu or guo would close off ridle in this case.)
6. Lopo refers to a mass of sessions or events taken together. Another example of the lepo/lopo distinction would be

$$
\begin{array}{ll}
\text { Ei tu pa hapduo lepo tu sucmi? } & \text { Did you enjoy your swim? } \\
\text { Ei tu pa hapduo lopo tu sucmi? } & \begin{array}{l}
\text { Did you enjoy swimming? (when you were a } \\
\text { child, for instance) }
\end{array}
\end{array}
$$

7. Le, po (note the pause comma) is le and a po-modifier: le, po takridle ditca (the act-of-reading-aloud teacher).
8. Again, lepo here refers to some specific case of helping, not to helpfulness in general, which would take lopo. A shorter way of saying this would be Lepo tu helba! How
helpful you are (in this case). You could also say Lopo tu helba! How helpful you are (in general)! Remember that lo can be used to call attention to something (Here's [another] instance of 〕; used with the abstraction operators, it points to an act, quality, or quantity, rather than to the person/thing involved.
9. Pu works just like po, but it refers to a quality: Ta pu bilti That is a quality of beauty.
10. Zo refers to quantity of a quality; in this case, to the amount or degree of someone's being helpful. This is generally the best way to translate How !! Lozo tu ckano! How kind of you! Note the difference between Lezo tu bilti! How beautiful you are! (tonight, or at some point) and Lozo tu bilti! How beautiful you are! (in general).
11. Lepo expressions are used in Loglan to translate indirect discourse. In other words, those clauses which often begin with that (think that, hope that, etc.) become lepo expressions. This only works when you're not quoting, though; do not use a lepo phrase with cutse ( says _ to _). If you're telling what someone actually said—or wrote, for that matter-you must either quote verbatim or use a construction we'll get to in a couple of lessons. When you quote word-for-word, use li...lu for Loglan and lie for everything else. Sentence 12 gives an example of li...lu.
12. Liu is used for quoting single words (li ai lu would be a bit awkward). It is also the way to refer to a word as such: Liu liu corta (/The word] "Liu" is short.) A liu argument doesn't need ga, because it ends with the next word.
13. People who are just learning a language often hesitate a lot in speech, and as you've seen, pauses are important to understanding Loglan. There is a way around this problem: Use gu to replace all those pauses we've encountered in the last few lessons; it's a spoken version of the written comma. If the Logli you're talking to looks at you like you've got two heads, just say, Mi meliugu (I'm a "guer"). This will let the Logli know not to trust your pauses, but to take only a gu seriously. There is no shame in this, so long as you don't remain at this stage forever. You are, after all, a "baby" Logli, and no one's ashamed to hear a baby say gu; but we do expect the gus to grow less frequent as the years pass.

## Lopo Purmao

Now is the time for action! Specifically, for doing and using things:
-pli (PLIzo, use) means to use some tool.
-duo (DUrzO, do) means to use some tool on someone/-thing, or just to perform some action relevant to the root.
logpli _uses Loglan
logduo _ uses Loglan on someone _ (Logduo lotu fremi!)
bedpli _ goes to bed
bedyduo _ puts _ to bed
telfypli _uses a telephone telfyduo _ [tele]phones _
[BEDpu PLlzo = bed-use]
[BEDpu PLIzo = bed-do]
[TELFo (Y) PLIzo = telephone-use]
[TELFo (Y) DUrzO = telephone-do]
-biu (BIvdU, behave) refers to some normal, habitual behavior. -kao (KAktO, act) refers to something done with some goal in mind.

| rembiu | _ is [naturally] friendly to _ | [fREMi BIvdU $=$ |
| :---: | :---: | :---: |
|  |  | friend-behave] |
| remkao | _ acts/pretends to be friendly | [fREMi KAktO = |
|  |  | friend-act] |


| gudbiu $\quad$ is [naturally] well-behaved | [GUDbi BlvdU $=$ |
| :--- | :--- |
|  | good-behave] |

gudkao _is [intentionally] well-behaved for purpose _ [GUDbi KAktO = good-act] (As children before Christmas.)
gubduo _ does good deed _ to _
[GUdBi DUrzO = good-do]

## Lo Nurvia Logla

## Eo peudja la Betis

(Kai) Loi!
(Dai) Ua! Mi durbiesni lepo spodru lepo tu fangoi ti!
(Kai) Hu vetci?
(Dai) La Betis, telfyduo. I Bai spopa lepo takna tu.
(Kai) I hu fu takna?
(Dai) Iu. Nao sii le, po logpli ditca ga cirna lo tcaro perti le, po tcanakso ditca. Lo treci!
(Kai) Rea mi hapduo lopo cirna ce ditca.
(Dai) Ua. Ei Bai oa logpli la Natli? Ifeu, Bai godzi ti.
(Kai) Ue ei? Gea rea.
(Dai) Ua io le fu ckozu je lopo no, lotu cirna ga fundi tu.
(Kai) Feu cei kamkytaa ia. La Betis, bea, ia fundi mi.
(Dai) Lo nu kance!
(Kai) Ei tu sirto lepo Bai godzi mu?
(Dai) Ia. Eo stise lepo nu fatru dzoru!
(Kai) Ei tu stolo ti?
(Dai) Ia, lo kliri! I Bai danza ia lepo vizka jmite mi.
(Kai) Eo santi! La Betis, na hijra! Eo nengoi, hoi Betis! Lezo tu bilti!
(Bai) I lozo tu ckano cutse! Ti ia bi la Deinys. Ea mu jmihai!
(Dai) Ea jmihai ia!
(Kai) Lopo hapci! Uu la Deinys, oa na godzi.
(Dai) Ifeu no.
(Bai) Iceu mi ao takna tu ze la Deinys, hoi Karl. I mi ju kenti lopo logcia. Ice tu ze Dai ii ao dapli.

## Lo Kenti

1. Dai durbiesni hu?
2. Hu cirna lo tcaro? (Use the complete designation, not just a name or variable.)
3. Sii ba takna ciha logduo Kai?
4. I tio fu ckozu hu?
5. Bai danza lepo takna hu hu?

## Lona Cninu Purda

| Predicate words |  | Clue words <br> (beauty [BIuTI]) |
| :---: | :---: | :---: |
| bilti | _ is more beautiful than _ to _ |  |
| durbiesni | _ is about to [do] _ | [DURzo BIdjE SNIre = |
|  |  | do-edge-near] |
| danza | _ wants _ for purpose | (desire [DiZAir], want [uANt]) |
| dzoru | _ walks to _ from _ via _ |  |
| kance | _ is conscious/aware of/that _ | (conscious [KANCys]) |
| santi | _ is quieter than _ | (silently [SAileNTII]) |
| spodru | _ loses hope/despairs of/that _ | [SPOpa DiRIU = hope-lose] |
| stise | _ stops/ceases [doing] _ | (stop [STop]; cease [SIS]) |
| tcanakso | _ is a mechanic on vehicle(s) | [TCARO NAKSO = car-fix] |
| telfyduo | _ telephones _ | [TELFo (Y) DUrzO = |
|  |  | telephone-do] |
| vetci | _ happens to _ | (event [iVEnT]) |

Little Words
gea again; I repeat (free modifier)

## Summary: Lesson 9

1. Po turns the very next predicate word into a new predicate about an action or event. To make po apply to an entire predicate expression, separate it from the following predicate word with a pause comma or gu: Ta po ridle cirna That's a reading
learner (one who learns to read). Ta po, ridle cirna. That's an instance of reading learning (learning by reading).
2. Although the event predicate has only one blank (is an event of [whatever the original predicate referred to]), the original predicate's blanks may be filled out as usual after the po IF the po-expression is being used as a predicate.
3. If the po-expression is being used as a modifier, you have to use je/jue to fill in the original predicate's blanks (though this is seldom worth doing). A po-modifier can't directly follow a descriptor; they must be separated by a pause-comma or gu. (Without this separation, the po would apply to the argument as a whole.
4. A po-predicate may be turned into an argument using lepo or lopo. Lepo (and lopo) may be followed by a predicate word or a complete predicate expression. When this type of phrase is the first argument, close it with ga or an inflector. If it comes later (but not last) in the sentence, use gu or guo.

## Lopo Lenbatmi Cirduo

1. Lozo tu ridle!
2. Ei tu danza lepo mi telfyduo tu?
3. Lopo lodji penso ga pu logli.
4. Ti po, lenbatmi je lo steti gu cirduo.
5. Ei tu fundi lo, po purmao parti je le bukcu?
6. Mi fundi lo logla po purmao.

You read so much! (The amount you read!)
Do you want me to call/telephone you?
Logical thought is a quality of being a Logli.
This is a translating-sentences exercise.
Do you like the word-making part of the book?

I like Loglan word-making.

Lesson 10: Anything for the Cause

## Lo Mipli Steti

1. Ta pa felda kou ${ }^{1}$
lepo ta mutce tidjo
That fell physically-caused-by its being very heavy That fell because it was very heavy.
2. Ta tidjo, inukou ${ }^{23}$ ta pa felda

That was heavy, physically-causing it [to] have fallen That was heavy, so/therefore it fell.
3. Ta pa felda nokou ${ }^{4}$ lepo ta latci

That fell not-physically-caused-by its being light That fell despite being light/although it was light.

| 4. Ta latci $\quad$ nonukou ${ }^{5}$ | lepo ta pa felda |  |
| :--- | :--- | :--- |
| That was light, | not-physically-causing | its having fallen |

5. Mi pa donsu la Djan ta, irau ${ }^{6}$ Dai jurna ta I gave John that justified-by his earning it. I gave that to John because he earned it.
6. Mi pa donsu la Djan ta, imoi ${ }^{7}$ Dai pluci mi

I gave John that motivated-by his pleasing me.
I gave that to John because I like him.
7. Tu saadja toi, $\quad$ isoa $^{8} \quad$ tu logli

You understand this-statement entailed-by your being a Logli
That you understand this is entailed by your being a Logli.
8. $\mathbf{T u}$ nusoaki ${ }^{9}$ saadja toi, ki logli.
*You therefore understand this given are-a-Logli
You consequently understand this, given that you are a Logli.
9. Tu gritu lia ${ }^{10}$ la Pavarotis.

You sing like Pavarotti.
10. Moihu ${ }^{11}$ tu pa durzo ta?

With-motive-what you did that?
Why did you do that?
11. Tu, emou ${ }^{12}$ mi ckano

You and-more-than I are kind.
You are kinder than I am.

## Lona Cninu Purda

## Little Words

| emou imoi | and-more-than _ A comparative connective; see note 12. motivated by the fact that $\qquad$ ; because $\square$ (See note 7.) |
| :---: | :---: |
| inukou | physically causing _; therefore _ (See notes 2 and 3.) |
| irau | justified by the fact that _; because _ (See note 6.) |
| isoa | entailed by the fact that _; because _ (See note 8.) |
| kou | physically caused by _; because of _ (See note 1.) |
| lia | like/in the manner of _ (A modal operator/PA word; see note 10.) |
| moihu | motivated by what? why? (See note 11.) |
| nokou | despite physical cause/factor ; although (See note 4.) |
| nonukou | nevertheless unexpected physical result _ (See note 5.) |
| nusoaki...k | thus , given _ (See note 9.) |

## Lopo Lengu Klimao

This lesson introduces causal connectives-the words translated because, therefore, although, and nevertheless in English. Causal connectives fit between inflectors and regular connectives, because like inflectors, they can act on arguments (va tu by you and kou tu because of you behave in much the same way), but like connectives they link two things (a cause and an effect) and have eeshekked and kekked forms.

We'll also meet modal operators-words that give details about claims. These are all members of the PA Lexeme (words which may be used like pa and the other inflectors), so they may be used with or without an argument, and even before predicates. There are a
lot of modal operators and other PA-words, but there's no need to learn them all at once. From now on, they will be marked (PA) in the vocabularies.

## Notes:

1. Kou indicates physical cause, though it's also used as a catch-all for the various types of causation. It is used either "adverbially" or with a designation, as here. Kou is not a member of the PA Lexeme, but it's used just like an inflector. KOU words often take lepo arguments.
2. The causal connectives can be used to join utterances, just like eesheks. In this form, they are used with regular predications, not with arguments such as lepo designations.
3. Nukou is the reverse of kou. It shows the effect rather than the cause, just as therefore does in English.
4. Nokou is the opposite of kou. It marks something which should have caused a different result-for example, lightness which should have prevented a fall (or at least made it less likely). The English equivalent is although.
5. Nonukou is the opposite of nukou; it indicates an unexpected result, such as something falling despite being light. English versions are nevertheless and but...anyway. (It was light, but it fell anyway.)
6. Rau marks a reason or justification-in other words, moral or ethical cause. It has the same variations as kou: nurau, norau, nurau, nonurau, and their corresponding eesheks.
7. Moi indicates motivational cause: the purpose which led someone to do something. It also has the same variations as kou and rau.
8. Soa shows entailment, that is, "logical causation." It's used to show that one thing follows or is a necessary consequence of another thing.
9. You can kek causal connectives, but the procedure is like that for u-keks: add nu- if it isn't there, remove it if it is there, and tack -ki on the end. The second word is always ki. Thus,

| kou | nukouki...ki... |
| :--- | :--- |
| nukou | kouki...ki... |
| nokou | nunokouki...ki... |
| nunokou | nokouki...ki... |

and so forth.
10. The modal operator lia provides another way to make the Pavarotti comparisons from Lesson 5. (Tu mela Pavarotis, gritu. Tu gritu clika la Pavarotis.) Modal operators are spare blanks for predicates. If you had to indicate all the possible relationships for each predicate, you'd have to add five or ten places per predicate to show tools, accomplices, methods, etc. To keep the number of blanks manageable, relationships common to many predicates are represented by words like prepositions. Modal operators are PA words. So you could also say Tu lia gritu You sing similarly and Gritu lia! Sing like that!

What's the difference, then? Do you use me, a modal, or a modified predicate? At this stage it doesn't matter much, though me is usually stronger, more intuitive and slangy, than a modal, and creating a new predicate through modification lies somewhere between the other two. For careful Loglan, use a modal; for ordinary Loglan, use modification; and for chatting with friends (or to pep up a boring text or conversation), use me. Me is one of the most powerful devices in Loglan; when you encounter some of its weirder uses, you'll be amazed-though you'll probably catch the meaning anyway.
11. Adding -hu to kou and its relatives (and to the modals, for that matter) creates several question words. Kouhu, rauhu, moihu and soahu all mean why? (They reflect different types of why, of course: physical, ethical, motivational, and logical.) Some other combinations you may find interesting: Numoihu? To what end? What good would it do? Heahu? With what help? You and whose army?
12. This is the other way to handle comparison (see Lopo Purmao in Lesson 5). Just connect the two arguments you want to compare with any of the connectives (eks, sheks, etc.) followed immediately by -mou (more than), -numou (less than), or -ciu (as much as). The example sentence means much the same thing as Lezo tu ckano ga mordu lezo mi ckano The amount of your being kind is greater than the amount of my being kind. The difference is that the sentence with emou actually claims that both of you are kind, while lezo, being an argument, makes no claim. Using $\mathbf{e}$ as the connective does require than the predicate be true of both arguments, though; if I mean that you are kinder than 1 am because I'm not kind at all, I will have to use umou or amou.

Ciu and mou can also be used without connectives to mean as much as equally and as well asiin addition to. In this case, separate them from a preceding connective with a
pause or gu. (This will happen rarely, if ever. It's difficult even to imagine such a case, because ciu and mou would not normally be used with arguments after a connective.)

## Lopo Purmao

We saw in the preceeding lesson that Logli are interested in intentions (-biu versus -kao); now that we're able to justify our actions, let's pursue this idea further.
-mao (MAdzO, make) means to make or cause something intentionally.
-cko (CKOzu, cause) means to make or cause something unintentionally or naturally.

You probably wonder why we bother with such a distinction. In part, it's to clear up an ambiguity in English between agent and instrument. Compare The worker improved the house with some paint (Le turka pa gudmao le hasfa lo pinti) with The paint improved the house (Lo pinti pa gudcko le hasfa). Judging by the similarity between the English sentences, you might think the paint is actively, intentionally improving the house. In Loglan, we have two separate words for improve:
gudmao _ intentionally improves _by [doing] _ [GUDbi MAdzO = good-make] gudcko _ unintentionally/naturally improves _ [GUDbi CKOzu = good-cause] sesmao _ contributes to science _; _is a scientist [SEnSi MAdzO = science-make] sesycko _unintentionally contributes to science _ [SEnSi (Y) CKOzu = science-cause] (Lopazu tarsandui pa sesycko lo tarsensi Ancient astrologers [accidentally] contributed to astronomy. Lo cmavizpae ga sesycko lo livsensi Microscopes contribute to biology.)
-cea (CEnjA, become) is used for becoming something (intentionally or not).
gudcea _improves
[GUDbi CEnjA = good-become]

## Lo Nurvia Logla

## Le kenti pe la Betis

(Bai) Rauhu mi cima la Loglan?
(Kai) Moihu tu kenduo?
(Bai) Tu rogduo spuro, hoi Karl, irau tu nu treci. I la Deinys, sii nu treci lo lengu ze kultu perti. Mi buo tcanakso. Gea, rauhu mi cirna la Loglan?
(Kai) Norauhu tu logcia?
(Bai) Lopo la Loglan, sii furplicle lo tcanakso.
(Kai) Icoihu la Loglan, furplicle? Tu hapci ia cirna Lai. Ei no, tio djipo?
(Bai) I tio ia djipo mi. Ibuo no, tio po, livspe helba.
(Kai) I hu po, livspe helba? Feu cea, no, la Loglan, cmeni vatlu, ei?
(Bai) La Turcefli, krido lepo la Loglan, furplicle soa lepo no, Lai gudcko lopu mi tcanakso spuro.
(Kai) Nusoahu? Feu, ia lopo logpli ga gudcko lopu tu vetfa penso. I ei no, lopu vetfa penso ga pu, tcanakso spuro?
(Bai) la. Moihu tu santi, hoi Deinys? Ei tu togri la Karl?
(Dai) la. Irau Kai mutce sadji takna. Ia lo nu hapduo ga kanoi gudcko cenoi zavcko lopu tu pernu ki, po nu cirna gudbi. Ceu tu ia gudmao lopu spuro. Isoa ke lopo gudmao lo pu spuro, ki lopo cirfundi ga pu metu. I, rau tio rea oe cirna la Loglan.
(Bai) Ao mi fa logpli lia tu, hoi Deinys!
(Kai) I hea mi, tu fa dui. I la Deinys, ii mou helba.

## Lo Kenti

1. Rauhu Kai, e Dai logcia?
2. Norauhu Bai dui?
3. Coi la Turcefli, la Loglan, soahu furplicle?
4. Ibuo coi Kai, hu pu, tcanakso spuro go nu gudcko Lai?
5. Coi Dai, hu po nu cirna gudbi? (You should add some je bas for clarity.)
6. Isui hu pu meBai?

## Lona Cninu Purda

Predicate words cirfundi _ enjoys/is fond of learning _ cmeni _ is an amount of money issued by furplicle _ is useless for purpose _ to user _
gudcko _ happens to improve _
gudmao _ intentionally improves/works on _ lengu _ is a language of people
livspe _ experiences/spends life; "lives" [cLIVi SPEni = life-spend] (as in Ta po hapci livspe! That's living!)
pernu _ is a person (Sp. persona [PERsoNa])
rogduo _ is a programmer/writes program _on [pROGa DUrzO = program-do] computer/system
turcefli _ is the boss of _in area _ [TURka CEFLI = work-chief] vatlu _ has a value of _ to _for use _ (value [VeLiU])

```
vetfa _ invents _ for use _
zavcko _ happens to worsen _
```

(invent [inVEnT])
[ZAVlo CKOzu = evil-cause]

## Little Words

coi according to _(PA)
hea with the help of _(PA)
mou in addition to _(PA) [Do not confuse this with connective+mou more than]

## Summary: Lesson 10

1. PA-words include inflectors and modal operators. They can be used with or without an argument to modify a sentence. Modal operators are like prepositions, indicating relationships common to many words. (If every predicate had places for companions, tools, methods, etc., keeping track of all the blanks would not be humanly possible.)
2. The causal connectives kou, moi, rau, and soa are like PA-words, because they can also be used alone or with an argument. They indicate respectively physical cause, motive, justification, and entailment (something which follows logically from a premise or argument). Each connective has four forms, modelled here by kou:
kou _ physically caused by _; because of _ nukou _ physically resulting from _; therefore/thus/so _ nokou _ in spite of presumed factor _; despite/although _ nunokou _ with unexpected/paradoxical result _; nevertheless _
3. The difference between causal connectives and PA-words is that the connectives have forms similar to eesheks and keks. The eesheks work on sentences rather than on simple arguments, and are formed by prefixing $i$ - to the connective. The keks are formed in a more complicated way: suffix -ki to the connective and prefix nu- if it isn't already present or remove it if it is. The second part of the kek is always ki.
4. Another way to create comparisons is to prefix a logical connective (e, canoi, etc.) to mou (more than), numou (less than), or ciu (as much as). The words connected are then compared in terms of the main predicate of the sentence. Ciu and mou also exist as separate words with somewhat different meanings; when these words follow connectives, they are separated from them by a pause or by gu: e, mou and also a gu cia andior as much as.

## Lopo Lenbatmi Cirduo

1. Rauhu tu fundi ti?
2. Mi fundi ta, irau ta no nu gudbi.
3. Ibuo ti soahu no nu gundi?
4. Kanoi ba, amou be helba bo bu ki ba gudbi be bo. Ice ta, amou lo notbi helba. Isoa ta gudbi nei. Isoa ta no nu gudbi.
5. Ei tu, emou mi saadja le bukcu?
6. Ifeu, mi, umou tu dui.

Why do you prefer this one?
I prefer that one because it's the best.
But what entails its being best?
If something $x$, more than another thing $y$, helps one do something $q$, then $x$ is better than y for q . And that, more than the others, helps. So it's better than they are. So it's the best.

Do you understand the book better than I do?
In fact, I do [understand] better than you, whether you [understand it or not].

## Lesson 11: Abstract Arguments

## Lo Mipli Steti

1. Hoi Sitas Makinos, rie ${ }^{1}$

O Sita Makino [respectful]
2. Ae rie tu perdri mi.

I [respectfully] hope that you remember me.
(Lo fircko steti!) I mu pazu ${ }^{2}$ socyjmi vile
(What a frightening sentence!) And we long-ago socially-met at the
mela Fam ${ }^{3}$ Djeksn, po hapsocli.
Family Jackson event-of partying (the Jacksons' party).
3. I mi bi laele ${ }^{4}$ blanu ze vegri cadre,

And I am-also-known-as the-one-represented-by the blue-and-green dress,
soi ${ }^{5}$ comtu!
[shamefully] (I'm ashamed to say)!
4. (Feu lemi mermeu papa ${ }^{6}$ furvea de $^{7}$ lui mi, inumoi mi oa respli de lui da.) (In-fact my husband had bought it for me, so I had to wear it for him.)
5. Iceu, tu takna mi
Iue ${ }^{8} \quad$ la Loglandias.
And anyway, you talked-to me [about] signs-of Loglandia.
6. I tu cutse luelepo ${ }^{9}$ di feu dzabi.

And you said signs-of the-event-of it actually existing.
7. Nao la Loglandias, he? I loe ${ }^{10} \quad$ logli ga godzi de ba

Now, Loglandias is-what? And the-average Logli goes there [from somewhere]
hu?
by what route?
8. I ei kisoa lea ${ }^{11} \quad$ logli ga cmalo, ki de cmaciu?

And [?] since the-class-of-all Logli is small, therefore Y is-equally-small?
And since there are few Logli, does that mean that Loglandia is just as small?
9. Isii no, lee ${ }^{12}$ cilble ga sandui ba

Apparently it wouldn't happen that any investigator [would] find sign something of
laa ${ }^{13} \quad$ logle gunti.
the-unique-entity-that-really is-a-Loglandic-country.
Apparently an investigator would find no trace of this Loglandic country.

## 10. Le kenti ga treci mi kou lepo

These questions interest me because-of the-event-of (because [of the fact that])
leuvi ${ }^{14} \quad$ logli mou ga cmalo.
the-particular-set-of-here Logli additionally being small.
11. Inorau eo rie gesko fomtaa
Nevertheless, would you please gues
12. Soi spopa, hue ${ }^{16}$ Adris Dini'n
Hopefully, [said] Audrey Dineen

## Lona Cninu Purda

| Predicate words | Clue words |
| :---: | :---: |
| cadre _ is a dress | (dress [DREs]) |
| cilble _ investigates _, looking for _ | [CItLu BLEka $=$ detail-look] |
| cmaciu _ is as small as _ is | [CMAlo CIktU $=$ small-equal] |
| comtu _ is ashamed of doing/being | (shame [CeiM]) |
| dzabi _ exists for _ under conditions _ | (be [BI]) |
| fircko _ [unintentionally] frightens _ by _ | [FIRpa CKOzu = fear-cause] |
| fomta _ lectures _ on/about _ | [FOrMa TAknA = form-talk] |
| gesko _ is a guest of _ at _ | (guest [GESt]) |
| gunti _ is a country of people | (country [kyNTrI]) |
| hapsocli _ parties with _ about/for _ | [HAPci SOCLI = happy-socialize] |
| mermeu _ is a husband of | [MERji MrEnU = married-man] |
| perdri _ remembers/recognizes person | [PERnu DRIki $=$ person-remember] |
| respli _ wears clothing | [RESfu PLlzo = clothing-use] |
| sandui _ finds evidence _ of _ | [SANpa DUvrl = sign-discover] |


| socyjmi | _ meets _ socially | [SOCli JMIte $=$ social-meet] |
| :---: | :---: | :---: |
| steti | _is a sentence/statement about | (statement [STEiTment]) |
|  | in language _ |  |
| vegri | _ is greener than | (Fr vert [VER]; green [GRIn]) |

## Little Words

da/de/di $\mathrm{X} / \mathrm{Y} / \mathrm{Z}$ argument variables which are used and assigned like ba and kin; see note 7.
hue said _. (Tells who said the preceding sentence(s); see note 16.)
laa the one person or thing uniquely describable as actually _ (see note 13)
lae the one with/characterized by _; see note 4.
lea the class of all things that appear to [be] _; see note 11.
lee any person or thing that actually [predicate] (see note 13)
leu the set of things that appear to [be] _; see note 12 .
loe the theoretical average member of the class/set of things that appear to [be] _; see note 10 .
lue the sign/symbol of _; the meaning of _; see note 8 .
mii mize di ( $Z$ and I): we (distinct from mu we (you and I); see note 15.)
papa had [done] _. A compound inflector. See note 6.
pazu long ago. A compound inflector. See note 2.
rie [respect(fully)]. A register marker. See note 1.
soi Pseudonomatopoeia marker: turns following predicate into attitudinal indicator. See note 5.

Names
Fam (famji) Family. As a title, la Fam _ means the _family.

## Lopo Lengu Klimao

And now, a Loglan letter! Letters generally begin with Hoi, the person's name, and sometimes a register marker (such as kae). They usually end with a closing phrase such as Sia loa, followed by hue and the writer's name. Other common closing phrases include Kerju [tu] (Take care [of yourself]!), Djela! (Be well!) and Nu cluva! (Be loved! [Love, ]). Soi (see Note 8) may become more frequent in time, as in Soi cluva! (Love,). This area is open to considerable innovation.

## Notes:

1. Rie is a register marker. Register markers are a simple, straightforward way to show how you view your relationship with your audience: respect (rie<rispe), politeness (kae<ckano), neutrality (nue<nutra), friendship (fie<fremi), or intimacy (die<dipri). (All register markers end in -e and are derived from some related predicate.) In natural languages, the devices for marking levels of relationship are complex, involving different words (dine, eat, chow down) and (in Japanese, for example) different grammatical forms. Kae marks politeness. In a letter's salutation, it roughly translates Dear Mr./Ms; with a predicate, it usually means would like to or might. After a while, you'll get a feel for where to use these words.
2. Adding -zi, -za, and -zu to inflectors provides the idea of extent:

| $-\mathbf{z i}$ | small/immediate | pazi | recently | vizi | in this very spot |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $-\mathbf{z a}$ | intermediate | paza | before | viza | in this area |
| $-\mathbf{z u}$ | large/distant | pazu | long ago | vizu | in this region |

3. Some names and titles are common enough to be made from predicate words into regular names. The easiest way to do this is to drop the final vowel(s) of a primitive or borrowing, as in famji $\rightarrow \mathbf{F a m j}$ and $\mathbf{k i c m u} \rightarrow \mathbf{K i c m}$. (If the result seems awkward or too long, just drop the final consonant: Fam and Kic.) For a few predicate words (the ethnic words, such as logla, logle, etc.), the final vowel is important and should be kept. In these cases, add -n: Loglan, Loglen, etc.

For complexes ending in a CVV djifoa, change it to a CVC one, if one exists (furbuu $\rightarrow$ furbuk). Otherwise, add -n (furbuun). (If a complex ends in a regular predicate word, drop the final vowel as above.)

As a rule of thumb (not a requirement!), avoid CVn djifoa for names. For example, loglai (a Loglandic piece of land?) should not be made into "Loglan" (using landi's djifoa -lan-)-it would be confusing! For the same reason, don't shorten a predicate word so that it ends in $-\mathbf{s}$ : if you turn cutse into Cuts, it will look like a foreign-language name. Cutsen or Cut would be better for Speaker.
4. Lae refers to something indirectly, through signs, labels, or other tokens. In this case, Audrey wants to refer to herself by a dress: the blue-and-green one. It's hard to give a general translation for lae; perhaps the most helpful would be the one withicarrying [the sign/symbol] _, as in lae le rozme (the one wearing with the rose). Note that lae, unlike le, must be followed by an argument.
5. Soi means that the next predicate is a parenthetical comment on some remark. The closest equivalent is found in the computer community, where (:-) is a "smiley face" (hold the book left-side-up if you don't get it), (;-) is a wink, and so on. It's usually a good idea
to use soi to let your reader (and sometimes even your listener) know when you're joking (soi ciafo, soi kamki), happy (soi crano, soi hapci), etc. As mentioned in the introduction to this lesson, soi-phrases work well as closings; they then indicate the general attitude of the letter.
6. Papa is a compound tense operator. You can translate it as already or even before then; before a predicate, use had [done]. As a rule of thumb, compounds ending in -pa translate have [done]; the first part of the compound shows the tense: papa had [done], napa have [done], and fapa will have [done]. Compounds ending in -fa translate about to (pa-/na-/fafa was/is/will be about to). (Compounds ending in -na would mean about the same thing as the simple tense operators.)
7. Da belongs to another series of pronoun-like arguments. It works like ba and kin: Da refers to the most recent argument (other than another Little Word, such as ba or lei); de refers to the argument before that, and so on. You can usually use letter variables instead, but this pronoun series is very common especially in older Loglan texts. It's also handy for talking about several people or things whose names begin with the same letter. Note that nao tends to reset the variables, so in the second paragraph, la Loglandias (which had been di) becomes de (da would be loe logli).
8. Lue is the inverse of lae: it refers to signs or representatives of something. Lue tu could be an article of clothing, a footprint, or anything else which signals your presence. Like lae, lue always precedes an argument.
9. Note luelepo: it's the way to indirectly quote someone. Da pa cutse lue lepo da kamla $X$ said (in effect) that $X$ was coming. In other words, $X$ spoke signs that pointed to that event.
10. Loe refers to the one I mean which is typical of the group of . It doesn't refer to any actual individual, but to a statistical abstraction. (How many "average" people do you know?) Loe comes from a combination of lo and le: It represents an average instance of 10 _
11. Lea refers to an entire class, not to any of its members. You can speak of a group as being large or small, new or old, without saying anything about the size or age of its members. Use lea whenever you want to say something about a group of people or things rather than about its members.

Lea creates sets generically from predicates. If you want to form a set from individual elements, use lau. For example, Lau la Leris, la Djein, le kicmu ga logla ciagru (Larry, Jane, and the doctor are a Loglan learning-group)-which is probably not true of any of them individually-is formed from lau and a list of arguments (the members of the set). Note that the list doesn't contain connectives: lau la Leris, la Djein, e le kicmu would combine la Djein, e le kicmu as one member. Also, you must close the list in some way, or it will absorb arguments. Ga closes the list, as does the end of the sentence; the word lua exists just to close lists which aren't closed any other way.
12. Lee and laa (see the following note) are unique among descriptors because they describe things which actually are or do what the predicate refers to. Lee cilble and laa logle gunti don't just seem to be investigators or Loglandic countries, they are such.

## (Logicians will recognize these as the Hilbert operator and a variation of Russell's definite description operator.)

Lee [predicate] points to any instance of a thing which is or does [predicate], as in Tisra lee karda! Pick a card! (Any card!) In Audrey's sentence it means, in effect, "pick any investigator you want, cei still won't find any evidence of Loglandias." If there isn't anyone or anything which is or does [predicate], the result is the empty set: lee hornyhoa a/any unicorn refers, so far as anyone knows, to a non-existent creature, and thus to an empty set.
13. Laa [predicate] points to a unique individual which is/does [predicate]. (Again, if none exists, it designates the empty set.) This will mostly be used by logicians, mathematicians, theologians, and philosophers--people who either believe in or speculate about uniquely describable entities.
14. Leu, like lea, refers to a group as a whole, but that group is a subset of some larger group: leu logli is some part of lea logli, some particular part of the whole.

To sum up:

Lo logli is part or all of the mass of all logli, so what you say about the mass does reflect on the individuals who constitute it.

Loe logli is the statistically average logli, an imaginary being. What you say about this abstract entity reflects general truths about lo logli, though it may not apply to any given logli.

Lea logli is the class of all logli. It differs from lo logli in that it refers to a single whole (a set or class) rather than to a mass of individuals. Lea logli ga cmalo means that the size of the set is small, not that logli themselves are. (In a sense, lea logli is a mass of individuals; but those individuals are its subsets (leu logli, particular groups), not individual logli. Claims about a class may not be true of any of its members: A large set may be made up of several tiny ones.)

Lau followed by a list of arguments converts the list to a set. The list must be closed in some way-by lua if by nothing else. Lau and lea do the same thing from different directions: lau goes from individuals to a set, while lea goes from a general idea (logli) to the class of all logli.

Leu logli is some particular subset of lae logli. Again, the group's characteristics aren't related to its members' characteristics.

Laa logli would refer to a unique individual: the only Loglanist in existence. While this might have designated Loglan inventor Prof. Brown at one time, this is no longer a unique description, so it would now point to the empty set.

Lee logli is any actual Loglanist at all.
15. Mii is a contraction of mize di, just as $\mathbf{m u}$ is a contraction of $\mathbf{m i z e t u}$. Mu includes the person you're speaking to, while mia and kin means we in the sense of someone and $I$. Similar forms exist for tu (tua) and $\mathbf{m u}(\mathbf{m u a}=\mathbf{m i z e} \mathbf{~ t u}$ ze da).
16. Hue tells who said or wrote the preceding quotation. The usual format is [quote] hue [name/designation] [gu or the end of the utterance]. When the established speaker (in this case Audrey) is quoted, you don't have to use la before the name: hue Adris. This is a normal way to end letters. In narrative dialogue (as in books), use la; and always use a descriptor for predicates which don't name: hue Ditca says Teacher, but hue le ditca says the teacher.

## Lopo Purmao

There are two major ways to express cooperative action in Loglan:

Bat- (BATmi, trade) is used for exchanges and mutual actions. In Lo Nurvia Logla for Lesson 8, you saw batyditca ( teach each other subject _). Bat- complexes like this generally have a plural first argument, because both people are (in terms of English grammar) the logical subjects.

Kin- and -kii (KINcI, accompany) indicate accompaniment. There is a difference between prefix and suffix:
kincia is an apprentice/disciple of teacher in subject [KINci CIrnA = accompany-learn]
cirkii _ is a fellow learner with _ in subject _ [CIRna KIncI = learn-accompany]

Simply put, a kincia is a learner who accompanies; a cirkii is a companion who learns. So -kii complexes may often be translated with fellow- or co-in English. Kin-, on the other hand, refers to someone who accompanies in order to do something.
kinsri _ follows _ to chronicle _
[KINci SRIte $=$ accompany-write]
(Someone who follows someone else around with a pen and notebook, like Dr. Watson.)
srikii _co-writes _ with _
batsri _correspond/exchange letters with each other
[SRIte KIncI = write-accompany]
[BATmi SRIte = trade-write]
(Another version is lerbatmi [LERci BATMI = letter-trade]; however, this has the structure _ corresponds with _.)

## Lo Nurvia Logla

## Le lerci pe la Fum Makinos

Hoi Rien,

Ae rie no, le cimra zo hatro ga fatru la Rien. Lo ponje cimra io ga hatro lo metu. (Lo gudcae!) La Mer, ze mi ao rie gatcue tu lepo gesbeo. Irea mie ui durtoi. Ibuo oa mi, soi fatcou, djadou Rai lopo la Mer, enoi mi fomtaa. Nunorauki mi srikii lo bukcu de, ki mi feu kinsri de lo vidre. (I de sismao vei coi lomi nu srite.) Inusoa, mi bi la Furbuk. I la Mer, bi la Fomtak, soi clafo. Eo mie norau hijra lepo grujmi?

Nao mie na danpeo laeli Hu sitfa la Loglandias lu. Ae io da helba tu. Kanoi tu ke siodja lo loglo ki kaidja lo logle ki tu komfu lopo logli. (Lopo djano lo fu plizo la Loglan, ga sui
koucko.) Uu no, loe logli ga kaidja lolei kultu ze lengu! Eo komfu! Inomoi leutu logli ga cmalo. I lea logli sui dui! Ibuo lo junti ga cmalo, efa grocea.

Lomie, po kulbatmi nu speni tie la Loglan, ga ii notbi fu takna. Tu io djano lemie nerjmistu. Mi hindi stude vi la Nihon. De dichea lemi gandia. Mie disri lepo kinci cirna la Loglan. Fazi, mie lenkoumro la Loglan, mie lomie notbi nu cirna lengu. Rea, mi na gudbi ge ponja cutse cenoi srite. I de lenkou la Hindis.

Ceu, lopo speni lo notbi kultu ga ia gudcko. Ibuo kanoi tu fundi le notbi fu takna, ki ia mie durtoi. Feu, la Mer, fundi fomtaa lotu logli leemie nu bukcu. I lea fu fomtaa ga groda. Lau lo loglo, lopo kulbatmi gu, lo, po penso nu ckozu je la Loglan, lo loglo fikco, lopo kambi la Loglan, lo notbi lengu, li Hu sitfa la Loglandias? lu, lua parti lista fei. Eo tisra lee fu fomtaa!

Gea, soi garti. I kerju, hue Sitas

## Lo Kenti

1. Nusoahu la Fum Makinos, bi la Furbuk?
2. No, loe logli ga he?
3. Hu cmalo? (Give all the possibilities mentioned.)
4. Hu parti lista? I da lista hu?

## Lona Cninu Purda

| Predicate words |  | Clue words <br> (summer [syMR]) |
| :---: | :---: | :---: |
| cimra | _ is the summer of year _ |  |
| "In the summer, heat waves make things shimmer [cimr]." |  |  |
| clafo | _ laughs at [person/thing] _ | (laugh [LAF]) |
| danpeo | _ composes/outlines _ | [DANci PEnsO = |
|  |  | design-think] |
| dichea | _ is a teacher's aide for teacher _ | [DItCa HElbA $=$ |
|  | in subject/class _ | teach(er)-help(er)] |
| disri | _ decides to [do] _ about _ | (decide [DISaId]) |
| durtoi | _ agrees/promises to [do] _ to/for _ | [DURzo TOgrI = do-agree] |
| fatcou | _ is sorry to bother _ by doing _ | [FATru COmt $=$ |
|  |  | bother-ashamed] |
| (soi fatcou = excuse me) |  |  |
| gandia | _ is a professor of subject _ at institution _ | [GANta DItcA $=$ |
|  |  | high-teacher] |
| gatcue | _ thanks _for | [GArTi CUtsE = |
|  |  | grateful-say] |
| gesheo | _ invites _ to be a guest at/for _ | [GESko BEgcO = |
|  |  | guest-request] |
| grocea | _ grows/becomes big[ger] | [GROda CEnjA = |
|  |  | big-become] |
| grujmi | [group] _ meets at _ | [GRUpa JMIte = |
|  |  | group-meet] |


| gudcae | [circumstance] _is luckier than _for _ | [GUDbitCAnE $=$ good-chance] |
| :---: | :---: | :---: |
| hatro | _ is hotter than _ by _ | (hotter [HATR]) |
| hindi | _ is a Hindu/native of India | (Hindi) |
| kaidja | _ recognizes/knows quality _in _ | [KAtII DJAno = quality-know] |
| kambi | _ compares _ to/with _ in feature _ | (compare [KyMper]) |
| kinsri | _ follows _ to chronicle _ <br> [da's deeds, thoughts, etc.] | [KINci SRIte $=$ accompany-write] |
| koucko | _ happens to make _ comfortable in/about _ | [KOmfU CKOzu = comfortable-cause] |
| kulbatmi | _ exchanges culture with _ | [KULtu BATMI = culture-exchange] |
| lenkou | _ is comfortable with/fluent in language _ | [LENgu KOmfU = language-comfortable] |
| lenkoumro | _ is more comfortable with/fluent in language _than _ is in _ | [LENgu KOmfU MO/Rdu = language-comfortable-more] |
| lista | ${ }_{-}$is a list of set _ in order | (list [LIST]) |
| nerjmistu | _ is a/the story of _'s meeting each other | [NE (R) JMIte STUci = first-meet-story] |
| ponja | _ is a part of the Japanese language |  |
| ponje | _ is a Japanese area |  |
| sismao | _ arranges _ according to system _ | [SISto MAdzO = system-make] |
| sitfa | _ is a site/place/location of _ | (site [SaIT]) |

srikii _ co-writes _ with _

Names
Fomtak Lecturer [fomtaa]
Furbuk Author [furbuu]
Hindis Hindi (the name of the language)
Mer Spouse [merji]
Nihon Japan

## Summary: Lesson 11

1. Register markers let your audience know how you're relating to them: formally, informally, etc. These words modify the word or group they follow.
2. Soi [predicate] makes an attitudinal indicator out of [predicate]; a sort of aside or comment on what you're saying.
3. The suffixes $-\mathbf{z i},-z a$, and $-z u$ define the extent of an inflector, specifying short, medium, and large periods and areas.
4. Tense inflectors can be compounded. Prefixing pa- to another tense word produces perfect tenses (have/had/will have done), while fa- adds the idea of being about to do something. The second inflector gives the overall tense: papa had [done], fapa was about to.
5. Names may be formed from primitives by dropping the final vowel. For complexes, add $\mathbf{- n}$ or use a CVC djifoa to end the word. (Avoid abbreviations ending in $\mathbf{- n}$ and -s.)
6. The variables $\mathbf{d a} / \mathbf{d e} / \mathrm{di} / \mathrm{do} / \mathrm{du}$ are used like any other variable. They are assigned on a last-in, first-out basis: da refers to the last unassigned argument, de to the one before that, and so on. These variables combine with mi, tu, and mu to form words such as mia (mi ze da), tua (tu ze da), and mua (mu [mi ze tu] ze da).
7. Lae [argument] refers to someone or something represented or characterized by [argument]. Lue [argument], on the other hand, refers to some sign or symbol of [argument]. (Note that both Little Words, unlike normal descriptors, must be followed by an argument.) Luelepo is often used for indirect quotes-for telling what someone said "in effect," rather than giving an exact quote.
8. Loe forms descriptions of the theoretical average member of some class or set.
9. Lea, leu, and lau [...lua] all create descriptions of sets or classes. Predications about such arguments always refer to the group as a whole, rather than to its members. (Le, on the other hand, concerns members of a set.) Lea [predicate] describes the class of all things which appear to [predicate], while leu [predicate] refers to a subset of a larger group. Lau introduces a list of arguments which comprise a class. Lau-arguments must be closed in some way (usually with lua) unless they end an utterance.
10. Laa and lee both refer to individuals who really do or are what the predicate describes. Laa designates the only individual which is or does [predicate], while lee points to any such person or thing.

## Lopo Lenbatmi Cirduo

1. Ei lea logli laldo loe logli?
2. Ei tu papa takna le ditca le detra na lepo da fadkaa?
3. No. Ibuo mi pafa takna di.
4. Ei lee ridle je levi bukcu soa logcia?
5. Uu no. I no, luelopo logli ga ridle lo bukcu.
6. Ifeu, laa sanpa je lopo logli ga po, logli penso.
7. Inusoa kanoi ba kenduo tu luelepo laele logla bukcu ga logli, ki oe io cutse liu iu.

Is the class of all Logli older than the average Logli?
Had you talked to the teacher about the daughter when she [the daughter] arrived?

No, but I was about to talk to her. [The teacher; de bi lepo da fadkaa.] Would anyone at all who reads this book therefore learn Loglan? [A reader chosen at random.]

Unfortunately, no. The sign of being a Loglanist isn't reading books.

The one sign of being a Loglanist is thinking like one.

So if someone asks you if the one with the Loglan book is a Logli, you should probably say, "I don't know."

Lesson 12: The Numbers Racket

## Lo MIpli StetI

1. To ${ }^{1}$ mrenu pa kamla.

Two men came.
2. To le $^{2} \quad$ mrenu pa kamla.

Two of the [group of] men came.
3. Le to ${ }^{3}$ mrenu pa kamla.

The two men came [separately].
4. $\mathrm{Lo}^{4}$
to mrenu pa kamla.
The instance of the mass of all two men came.
The two men came together.
5. Hoba ${ }^{5.6}$ pa kamla?
How-many [somethings] came?
6. Tao tona' vetci.

That-situation twice occurs (occurs twice).
7. Ta kilgramo ${ }^{8} \quad$ lio $^{9}$ toni.

That measures-in-kilograms the-number twenty.
That weighs twenty kilograms.

| 8. Ta meltidjo $^{10}$ | lio | tonikeigei ${ }^{\text {11. }}$ |
| :--- | :--- | :--- |
| That measures-in-heaviness | the-number | 20 kg. |
| That weighs twenty kilograms. |  |  |


| 9. Ta tidjo $^{\mathbf{1 2}}$ | ti lio | toni | kilgramo. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| That is-heavier-than this by the number | 20 | kilograms. |  |
| That is twenty kilograms heavier than this. |  |  |  |

10. Le toni kilgramo ${ }^{13}$ ga cmalo.

The twenty, [one-] kilogram [things] are small.

| 11. Ie | lio | tofokuato? ${ }^{14}$ | (tofo | kua | to) |
| :---: | :--- | :--- | :--- | :--- | :--- |
| What is another way of saying | the number | $24 / 2 ?$ | $\left(\begin{array}{ll}24 & /\end{array}\right.$ | $2)$ |  |

What is twenty-four divided by two?
12. [Lio tofokuato bi] lio neto. ${ }^{15}$
[The number $24 / 2$ is another way of saying] the number 12.
[Twenty-four divided by two is] twelve.
13. Hu jolkeo
[ti]
[le nedpao
What is a clocktime ending at [this moment] and beginning at [the previous
midnai]? ${ }^{16}$
midnight]?
What time is it?

14. Lio netoma ${ }^{17}$<br>[It's] noon.<br>15. La Netoman. ${ }^{18}$<br>"Mr. Twelve"

[ga jolkeo].
The number twelve hundred [is the time].

## Lona Cninu Purda

Predicate words
jolkeo _ is the clocktime from/beginning at to/ending at _ (See note 16)

meltidjo _ weighs/measures-in-heaviness in gravity-field _ (See note 10)
midnai _ is the midnight of day _
nedpao _ is just before _ in series _
tidjo _ is heavier than _ by _ in gravity-field _

Clue words
[JOKLa cKEmO = clock-time]
[KILto GRAMO = thousandfold-gram]
[MErLi TIDJO = measure-heavy]
[MIDju NAtII = middle-night]
[NEDza PAskO = next-before] (weighty [ueiTI])

Little Words
ho how many _? (A number word; see notes 5 and 6 .)
kua divided by _; see note 14 .
lio the number_ (A descriptor; see note 9.)
tona twice (two-now) (A quantified inflector; see note 7 .)

## Lopo Lengu Klimao

Numbers in in Loglan aren't difficult to use, just different. Here are the numbers, divided into odd (-e) and even (-o):


For numbers above nine, just read off the digits: $10=$ one-zero $=$ neni; $1993=$ one-nine-nine- three $=$ nevevete. For even hundreds, add -ma: nema one hundred, toma two hundred, etc. (Only do this when the number ends in "hundred"; otherwise, just read the digits off as usual, as in one thousand nine hundred and ninety three, above.) For even thousands, add -mo (nemo one thousand). (Technically, -ma equals two zeroes, and -mo equals three.)

The example sentences are roughly in order of frequency, that is, the early ones are the structures you'll probably encounter most often.

Notes:

1. As in English, you can say to mrenu (two men).
2. When you put a number in front of le, the result is [number] of the set of _. Remember, leu refers to a set, le refers to the members of a set. So to le mrenu means two members of the set of men I'm thinking about.
3. Le followed by a number refers to the members of a set with [number] members: le to mrenu the members of a set composed of two men (the two men).
4. While le refers to members of a set, it does so individually; lo, on the other hand, refers to them as a group. (Putting a number in front of lo means the same thing as the number alone, so Logli just drop the lo.)
5. Ho means what number?/how many _? It is used like any ordinary number.
6. Numbers can't wander around on their own in Loglan; they must be attached to something. So we use one of the ba series as a catch-all argument.
7. You can use a number-word with an inflector to show how many times or places a claim is true for. Thus, tona twice, nivi nowhere, hona how many times?
8. The word kilgramo has the idea of weight built in, so we don't need to say "This weighs 20 kg ."
9. Lio is the numerical equivalent of liu; use it to refer to numbers themselves. If you use lio before the end of the utterance, you may need to follow the lio argument with ga (if the next word is a predicate) or a pause (in any other case). Note that we sometimes use the number _ in English for something other than a number proper: La Djonz, bi laelio fe

Jones (a football player, perhaps) is number five. Likewise Hu melaelio se? Who is/has [ticket] number seven?
10. If you just have to say That weighs 20 kg , prefix mel- (from merli _ measures _on scale ) to tidjo (is heavier than_by amount _in gravity-field ). Meltidjo means _ measures _in weight in gravity-field _. This is the way to form all measure words: melhatro ( measures _ degrees), melylanga ( measures_long), etc.
11. Lio tonikeigei means the mumber 20kg-yes, this is a number in Loglan. (It's called a dimensioned number.) There are two ways to form dimensioned numbers in Loglan:
(1) with predicates. I could have written lio toni kilgramo in the example sentence; as a beginner, you'll probably be more comfortable with this method. (This is why you must separate a lio argument from a following predicate. Why you would want to say Lio toni ga kilgramo The number twenty weighs a kilogram I don't know, but Loglan enables you to do so unambiguously.)
(2) with abbreviations. This is quick and (once you're familiar with the abbreviations) easy. (This is why you must separate a lio argument from a following letteral: otherwise, the letteral would become an abbreviation, and part of the lio argument.) The following are some of the most common abbreviations:

| Dai | dalra | dollar | lei | litro | liter |
| :--- | :--- | :--- | :--- | :--- | :--- |
| dei | denli | day | mei | metro | meter |
| gei | gramo | gram | meo | minta | minute |
| hei | horto | hour | nei | nirne | year |

```
isi inca inch sei sekmi second
```

The problem with abbreviations is remembering what the letter stands for. Does tolei mean two liters, two weeks (likta), or two li (an old Chinese measurement)? The abbreviations above are generally accepted, but ultimately you must be prepared to explain. It's like jumping into a paragraph about cei and dei without mentioning le cirna and le ditca explicitly; your audience may understand by context -or they may not. In the above example, context would probably serve to distinguish measurements of volume (litro), time (likta), and distance (li).
12. You can also use simple dimension words (heavy, high, hot, etc.) to form comparative measurements, though this is less common: Lemi brudi ga laldo mi lio tonei My brother is older than I am by two years.
13. In case you're wondering, no, toni kilgramo does not mean twenty kilograms. It means twenty kilgramo-[one-]kilogram objects. A twenty-kilogram object would be either le tornirkilgramo or le kilgramo je lio toni.
14. Note that tofokuato (24/2) is a number. Just as predicates may contain several predicate words, so numbers may contain several number words and operators (such as plus, minus, times, and divided by).
15. Surprised? Equations in math are usually just a way of finding more familiar or understandable name for a number. So they are identity sentences. Like God, numbers are not analyzable by scientific instruments; we discover their nature by looking at their names: Odd or Even, Prime or Nonprime, etc. In Loglan, $24 / 2$ is one of twelve's infinite
number of aliases. If you want to claim that $24 / 2$ is twelve (banging your fist on the table as you do so), there are two solutions. The straightforward way is to prefix me- to the second number: Lio tofokuato ga melioneto. The other possibility is to use a regular predicate, in this case nurjai _ is the result of dividing _by $:$ Lioneto, nurjai liotofo lioto. (Note that this puts the answer first: $12=24 / 2$.) These are, however, very unusual moves, and not for amateurs in either Loglan or mathematics.
16. Look carefully at the structure of jolkeo. It gives the time (first argument) between an event (second argument) and some moment when the clock was started (third argument). If the second argument is blank, it is assumed to be the present moment. If the third argument is omitted, it's taken to be the previous midnight. You can fill in the blanks in other ways: Hu jolkeo lepo la Tcarlis, fa hijra? When will Charlie get here? Hu jolkeo ti lepo Cai sackaa? How long has it been since he left?
17. Logli generally use the twenty-four hour clock. "Twelve hundred" is taken to mean twelve hours past midnight, just as it is in military or technical English.
18. You can also answer the question with a name.

## Lopo Purmao

The numbers zero through nine have easily-remembered djifoa. Just add -r to the number: nir-, ner-, tor- (remember torkrilu?), etc. We'll see an important use for them in the next lesson.

Because it would be awkward to to use these djifoa for metric terms, which are essentially international anyway, Loglan adopts multiplicative predicates:

| dekto | _ is tenfold of | decti | _ is a tenth of |
| :---: | :---: | :---: | :---: |
| hekto | _ is a hundredfold of _ | centi | _ is a hundredth of _ |
| kilto | _ is a thousandfold of _ | milti | _ is a thousandth of |
| mirdo | _ is a ten-thousandfold of _ |  |  |
| megdo | _ is a millionfold of _ | mikti | _ is a millionth of |
| gigdo | _ is a billionfold of _ | nanti | _ is a billionth of |
|  |  | pikti | _ is a trillionth of _ |

The large numbers all end in -to or -do; the small ones all end in -ti. All of them use their first three letters as djifoa (dek[to], dec[ti], etc.).

## Lo Nurvia Logla

## Nepo ditca lo konmathe

(La Megn) le lio fetiate?
(La Palys) Iu.
(Mai) Palys, penso! Lio fetiate bi lio fepiofepiofe.
(Pai) Inusoa lio nefe.
(Mai) Lo dreti! Lio fetiate bi lio nefe. Eo no, genble le jokla!
(Pai) Ibuo lo konmathe po ditca ga minta lio fofe! I tu sacduo na la Nenen! I ti nu jolkeo lio netohei! Lenapo ditca napa horto!
(Mai) Mi napa krido lepo tu plidja lo numcu! Ibuo feu mi pa cutse luelepo lenapo ditca ga ckemerli lio nehei.
(Pai) Isoa mu nazi stise! Ei?
(Mai) Ii. Ibuo oa tedmou cirna.
(Pai) No, lo numcu ga treci.
(Mai) Ibuo nei, ia pazi treci tu. Irea no, nei simci lopo perti lopo livspe. Ei?
(Pai) Ii.
(Mai) Inusoa mu oa duoba pertymao nei. Soi vefpeo...Soi vidydui! Kanoi mi eu donsu tu lo nema dalra, ki tu furvea hu laelevi nurvembuu?
(Pai) Eo mi na nu donsu?
(Mai) Tedji liu eu, eo. Ea mu plekri, na. Tu eu furvea ho levi dalra?
(Pai) Nema, rea.
(Mai) Tu eu furvea hokeigei tcoko?
(Pai) I ui lo tcoko ga kilgramo lio neni!
(Mai) Ua. Kanoi tu eu furvea fe levi terdalra, ki hu prati?
(Pai) Lio nefeDai. Ti ia trecymou, inoca mi eu plizo lo dzabi dalra.
(Mai) Soi togri! Nu peupli, eo!
(Pai) Soi kamki! Ifeu, ti mutce treci.
(Mai) Lo nu sirto!

## Lo Kenti

1. Ie lio fetiate? (Plizo levi to nu srite.)
2. Lopo ditca napa ckemerli ho? (Tedji liu lopo, e liu napa.)
3. Ibuo Mai pa cutse hu Pai?
4. Duohu Mai pertymao lo numcu Pai?

## Lona Cninu Purda




Little Words
duo in manner/by method _ (PA)
eu suppose that (free modifier; sign of a contrary-to-fact supposition)
nazi at the very moment that _; immediately
pio plus
tia times/multiplied by _

Summary: Lesson 12

1. Number words automatically compound unless separated by a pause comma, though they may be separated in writing to improve readability.
2. A number before a descriptor means [number] of: te le three of the [group of]. A number may be used in place of a descriptor: te bukcu three books. As you might expect, adding a descriptor to such an argument produces a description of a group: le te bukcu the [members of the set of] three books.
3. The Little Word ho is to numbers what he is to predicates and hu is to arguments. It acts just like a number and means how much?
4. Number words may be prefixed to inflectors to tell how many times or places they refer to.
5. Lio (the number _) is a descriptor for refering to numbers as numbers: lio ne the number one. Like other descriptions, lio-arguments should be closed off before predicates; they must also be separated from any following letteral, or they will absorb it.
6. To express a measurement as an argument, use lio [number] [measure word], where [measure word] is either a predicate referring to a measurement (for example, kilgramo kilogram) or an abbreviation of such a predicate (keigei/kg). Combinations of numbers and measure words, especially those involving abbreviations, are called dimensioned numbers.
7. There are three main ways to predicate a measurement. The most common is simply to use a measure predicate: Ti kilgramo lio to This weighs/masses three kilograms. The second way is by comparison using a dimension predicate such as tidjo (is heavier than _ by amount _in gravity-field _): Ti tidjo ta lio 2kg This is heavier than that by two kilos./This is two kilos heavier than that (is). You could also refer directly to the quality measured: Ti meltidjo lio $\mathbf{2 k g}$ [tokeigei] This measures two kilos in weight. (This sounds a bit redundant in English; it's definitely redundant-but legal-in Loglan. Ordinarily, you would only say such a thing to someone who didn't realize that a kilogram was a measure of weight, or to make the technical distinction between mass and weight.) Measure predicates such as meltidjo are formed by prefixing mel- (from merli measure) to a dimension predicate, in this case tidjo.
8. Equations are generally translated as identity sentences, and mathematical expressions $(2+2)$ are treated as single numbers, though as noted above, they may be written separately.
9. Clocktime is expressed with the predicate jolkeo: Hu jolkeo? What time is it? Time expressions are translated as numbers or names: Lio tohei piu tenimei/La Topiutenin/La Tohein Tenimein Two-thirty.

## Lopo Lenbatmi Cirduo

(The Loglan name for Earth, incidentally, is la Ter.)

1. Se le cirna pa kamla.
2. Se le ho cirna [pa kamla]?
3. Se le neni cirna [pa kamla].
4. Inusoa no, te cirna pa kamla.
5. No ia! Ifeu, te cirna pa kamla. Ibuo cei kinci fo notbi.

Soi dreti,te le [neni] cirna no pa kamla.
6. Le blanu ga tidjo le redro.
7. Hu ju tidjo?
8. Lio fekeigei.
9. I rei kilgramo hu?
10. Rei kilgramo lio to.
11. Inusoa bei meltidjo lio se kilgramo.

Seven of the learners came.
Seven [out] of the group of how many learners [came]?

Seven of the ten learners [came].
Therefore, three learners didn't come.
Certainly not! In fact, three came.
But they were with four others.
Properly speaking, three of the [group of] learners didn't come.

The blue one is heavier than the red
one.
By how much?
Five kilos.
And it [the red one] is how many kilos?
[And] it measures two kilos.
So it [the blue one] measures seven kilograms in weight.

Lesson 13: Fuzzy Figures

Lo Mipli Steti

1. $\mathbf{R i}^{\mathbf{1}}$ mrenu pa kamla.

Several men came.
2. $\mathbf{R e}^{\mathbf{2}}$ le mrenu pa kamla.

Most of the men came.
3. Eu raba ravi ${ }^{3}$ logpli!

Suppose everyone everywhere used Loglan!
4. Safoniba ${ }^{4}$ vi bukcu.

About forty things here are-books.
There are about forty books here.
5. $\mathrm{Sa} \mid \mathrm{ra}]^{5} \quad$ le mrenu pa kamla.

Almost all of the men came.
6. Pife $^{6}$ le mrenu pa kamla.

Point-five of the men came.
7. Piro ${ }^{7}$ lo bukcu ga treci.

Many books are interesting.
8. Le tera ${ }^{8}$ ga spuro gritu.

The trio expertly sings. (sings expertly)
9. Le to, tera ga spuro gritu.

The two trios expertlysing.
10. $\mathbf{T i}$ neteri ${ }^{10}$ cirpai.

This is the thirteenth lesson.
11. Hu jolkeo [ti] [le nedpao

What is a clocktime ending at this [moment] and beginning at the previous
midnai]?
midnight?
What time is it?
12. Lio netohei pio ${ }^{11}$ nefemeo.

The number 12 h plus 15 m .
Twelve-fifteen. Quarter past twelve.

| 13. Lio | neanefemeo $^{12}$ | pio | netehei. |
| :---: | :--- | :--- | :--- |
| The number | -15 m | plus | 13 h. |

Fifteen/Quarter until one.

## Lona Cninu Purda

Predicate words
cirpai _ is a lesson in course/subject _

Clue words
[CIRna PArtI = learn-part]

## Little Words

eu suppose that _ (contrary-to-fact supposition marker introduced in the previous reading.)
nea negative _ (of negative numbers)
neteri thirteenth (ne te -ri)
pi [decimal] point (See notes 6 and 7.)
pio plus (introduced in the previous reading)
-ra -some, is a group with - members (Predicate-forming suffix; see note 8.)
ravi everywhere (all-here) (A quantified inflector; see note 3.)
re most (See note 1.)
ri a few/several (See note 1.)
$-\mathrm{ri} \quad$ _ is the -th member of group _. (Ordinal suffix; see note 10.)
ro many (See note l.)
sa almost; (used alone as an abbreviation of sara) almost all of (See notes 4 and 5.)
tera trio, threesome (te -ra)

## Lopo Lengu Klimao

In this lesson we cover more general ways of counting, using vague words such as all, many, and most of. We'll also look more closely at how to tell time.

## Notes:

1. There are two series of indefinite numbers in Loglan: the ra series and the sa series. Both can be used in place of numbers, but only the sa series can be used with numbers. The ra series is larger, consisting of

| ra | all | ro | many | ru | enough |
| :--- | :--- | :--- | :--- | :--- | :--- |
| re | most | ri | several, a few |  |  |

Sentence (1) is just like the sentence To mrenu pa kamla.
2. This sentence is just like To le mrenu pa kamla. Note that ra is almost never used before a descriptor. After all, if Le mrenu pa kamla, then certainly Ra le mrenu pa kamla.
3. The ra series (and the sa series, below) may be used with inflectors, just like other number words: rana ahways, rena most of the time, rona often, suna sometime (at least once); ravi everywhere, revi (in) most places, suva somewhere (in at least one place).
4. The sa series may be used with or without numbers. (Remember, you have to attach a number to something; thus safoniba about forty things.) The sa series is smaller than the ra series:

```
almost, about
```

si at most
su at least
5. Surprise! When sa, si, and su are used without a number, they act as abbreviations. (You could say that they are never used without a number or numberlike word, though that word may go unsaid or unwritten.) The abbreviations are

| $\mathrm{sa}[\mathrm{ra}]$ | almost all |
| :--- | :--- |
| $\mathrm{si}[\mathrm{ne}]$ | at most one |
| $\mathrm{su}[\mathrm{ne}]$ | at least one |

6. The Little Word pi means point, as in decimal point. It's always spoken aloud, just as it usually is in English.
7. When you put a ra word (typically not ra, of course) before $\mathbf{l o}$, you must prefix pi- to the ra word. Lo refers to a mass, and the ra word represents some fraction of that whole.
8. Suffixing -ra to a number word (including the ra series) produces a collective predicate, that is, one referring to a group of $n$ members. Thus, tera threesome, trio; rara "allsome" (a group composed of everyone); rora "manysome, " multitude; rura "enoughsome" (a group composed of enough people or things for some purpose). Note that the first syllable of numeric predicates is stressed: /TEra/, /TOtera/.

This use of the sound sequence $/ \mathrm{ra} /$ doesn't create any ambiguities, because ra (all) is never used after numbers...unless a lio group ends with a number and is followed by an argument beginning with ra. But that's another reason for pausing after lio arguments.
9. When you use a number before a number word, you have to pause between them to keep them apart. Without the pause, le to, tera (the two trios) would become le totera (the group of twenty-three).
10. Suffixing -ri to a number word (again, including the ra series) produces an ordinal number predicate: neri first, tori second, teri third, etc. These are two-place predicates: _ is the nth member of set _. As with -ra predicates, -ri predicates are stressed on the first syllable: /TEri/, /TOteri/. Rari "allth" refers to to the ulimate member of some group (the one at which you may say "That's all!"). Note also Toa ruri! That is the "enoughth" remark! (Properly speaking, this means You've said just enough; anything more would be too much. It doesn't mean You've said too much already! Tu pana zavmoutsu cutse!)
11. Note that lio netohei pio nefemeo is all one big number. And just as you may say Twelve hours plus/and fifteen minutes, so you may say lio netohei nio nefemeo twelve hours minus/less fifteen minutes-a quarter of twelve, in other words. Here's another way to subtract minutes from an hour:
12. Negative fifteen minutes plus thirteen hours--twelve forty-five.

## Lopo Purmao

Ra and ro have their own djifoa, formed as usual by adding -r: rar-, ror-.

Last time I said that there were important uses for the number djifoa. These are the predicates for the months of the year and the days of the week, using -mei (mensi, month) and -dei (denli, day), respectively:

| nermei | _ is a/the january/first month of year |
| :---: | :---: |
| tormei | _ is a/the february/second month of year |
| termei | _ is a/the march/third month of year |
| formei | _ is a/the april/fourth month of year |
| fermei | _ is a/the may/fifth month of year |
| sormei | _ is a/the june/sixth month of year |
| sermei | _ is a/the july/seventh month of year |
| vormei | _ is a/the august/eighth month of year |
| vermei | _ is a/the september/ninth month of year |
| nernirmei | _ is a/the october/tenth month of year |
| nernermei | _ is $a /$ /he november/eleventh month of year |
| nertormei | _ is a/the december/twelfth month of year _ |

(I didn't capitalize the English names of the months to make a point: in Loglan, only names as such are capitalized within a sentence. Predicates and descriptions (le nermei the january in question) are not.)
nerdei _ is a/the monday/first day of week/month _
tordei _ is a/the tuesday/second day of week/month $\qquad$
terdei _ is a/the wednesday/third day of week/month
fordei _ is a/the thursday/fourth day of week/month _
ferdei _ is a/the friday/fifth day of week/month _
sordei _ is a/the saturday/sixth day of week/month
serdei _ is a/the sunday/seventh day of week/month

## Lo Nurvia Logla

## Vi le tursia pe la Betis

(Dai) Loi, Betis. Ue lo tidjo!
(Bai) Inurau lo lufta patce. No, nu fatru. I no, le motci fa felda. Mouhu tu hijra? Ei tu danza epo helba mi lepo bufbalci?
(Dai) No. Ia tu pa cutse luelepo le parti ga junti. Ibuo lo nu vizka ga îaldo simci.
(Bai) Ta nurpli cenoi ckemo laldo. Ibea le motci na nirne lio te, inunokou mei simci go nirne lio neni.
(Dai) Inusoa li le tcaro ga nirne ho lu ga nardu kenti.
(Bai) Ia. Ibuo mi kanmo lepo lalcue tu ra parti. Ibea, le konce ga nirne lio tove.
(Dai) Tu krani go melkukra ho?
(Bai) Ue, ei tu polsi?
(Dai) Irea no. Feu, mi godzi tu moi lepo djadou tu lepo la Adris, cutse luelepo to djipo fa fomtaa vi le ckela.
(Bai) Ie le djipo?
(Dai) I dei bi la Makinos. Lena namci sui ga cninu tu, ei? La Makinos, ponje merji, e fu bukcu piro lo ponja logla.
(Bai) Nahu Mai fomtaa?
(Dai) Na la Neserin, io. Nai sordei.
(Bai) Soi fatcou. Uo lo fu hirti! Na la Horin?
(Dai) Ue lo damlogla! Ae no, takna la Karl, lia!
(Bai) Iceu
(Dai) Iceu na la Neserin.
(Bai) Hu jolkeo tio?
(Dai) Lio nevepifehei.
(Bai) Mi ai fa hijra. No, la Turcefli, porli na lo sordei.
(Dai) Oe ii hijkinbeo Tai. Isii Tai oe djacea la Loglan.
(Bai) Ue! I mi na djano leTai retpi. I rei melaeli la na la Nirin, je la Nirmei lu!

## Lo Kenti

1. Hu nardu kenti?
2. Moihu Dai godzi Bai?
3. La Makinos, he?
4. I, ie Mai? (Tedji penso!)

## Lona Cninu Purda

| Predicate words | Clue words |
| :--- | :--- |
| bufbalci _ "tears down" vehicle _ (auto mechanics term) | [BUFpo BALCI = |
|  |  |
| opposite-build] |  |

djacea - learns/becomes knowledgeable about _from _ [DJAno CEnjA = know-become]


## Summary: Lesson 13

1. The ra-series is a group of words which may be used just like regular numbers. They can't be used with numbers, however.
2. When a ra-word is used before a lo description, the Little Word pi (decimal point) must be prefixed to it to acknowledge that you're talking about a fraction of the collective mass.
3. Sa-words modify numbers (including ra-words). When used alone, they act as abbreviations: sa[ra] almost all of, si[ne] at most one of, and su[ne] at least one of.
4. The suffix -ra changes a number word into a one-place predicate describing a group with [number] members: tera trio, threesome; rora "manysome," multitude. (Sa-words do not take this suffix, though they may be attached to a word which does, as sitera a group of.at most three.)
5. Suffixing -ri to a number word produces a two-place predicate with the structure _is the [number]th member of group _: teri is the third [member] of [group] _. (Sa-words do not use this suffix, either.)
6. To avoid confusion (especially where -ra and -ri predicates are concerned), always pause between number words you want to keep separate.

## Lopo Lenbatmi Cirduo

| 1. Lo cirpai je levi bukcu ga nesora. | The lessons in this book are a <br> "sixteensome." |
| :--- | :--- |
| 2. Tu na ridle ne, reri cirpai. | You're now reading a/one "most-th" <br> lesson. |
| 3. Isoa tu napa ridle pire lo cirpai. | Because you have read most of the <br> lessons. |
| 4. Isui tu nusoa napa ridle sa lo cirpai. | You've also therefore read almost all <br> of the lessons. |

Lesson 14: Just Say No

## Lo Mipli Steti

1. No, ${ }^{1}$ la Meris, pa godxi la Par'is, la Cikagos. It is not the case that Mary went to Paris from Chicago.
2. $\mathrm{No}^{2}$ la Meris, pa godzi la Par'is, la Cikagos. It was not Mary who went to Paris from Chicago.
3. La Meris, $\mathbf{n o}^{\mathbf{3}}$ pa tcaro godzi la Par'is, la Cikagos. Mary did not go to Paris from Chicago by car.
4. La Meris, pa no ${ }^{4}$ tcaro godzi la Par'is, la Cikagos.

Mary didn't go to Paris from Chicago by car.
(She went some other way.)
5. La Meris, no pa godzi ba la Cikagos. ${ }^{\text {s }}$

Mary didn't go somewhere from Chicago.
6. Ta corta noba. ${ }^{6}$

That's shorter than nothing (not shorter than anything).
7. Ta no corta raba. ${ }^{7}$

That's not-shorter-than everything.
That's (as long as) the longest thing there is.

## 8. No, ta corta ba. ${ }^{8}$

It's not the case that that is shorter than something.

## 9. Mi no pa durzo noba tu. ${ }^{\text { }}$

*I not did nothing to you.
I did something to you.

## Lo Lengu Klimao

In this lesson, we'll look at how the word no is used. It differs considerably from English, but the rules are both simple and brief.

## Notes:

1. Placing no in front of a sentence makes the sentence negative. This sentence-initial position is preferred for a number of reasons, including the simple fact that it lets your audience know immediately that you're denying something. Note the pause comma separates No from the rest of the sentence. This allows us to make the distinction in the following sentence (2).
2. No negates whatever follows it. This sentence underlines the fact that Mary didn't go, with the implication that someone else did. The basic claim, however, is still the same as in the previous sentence.
3. Putting no before an inflector negates the entire predicate. Notice how this differs (in a multi-word predicate) from the next sentence.
4. No right before a predicate word negates it. In this case, Mary's a "non-car goer": She goes, but not by car. We could also use Mai pa tcaro no godzi-she does something with a car (washes or sells it, perhaps), but she doesn't travel in it.
5. I said in Lesson 1 that you can fill in an empty blank with ba, but apparently that doesn't work when the predicate is negated. The sentence says that Mary doesn't go "somewhere" from Chicago-but that's almost certainly true! However many places she may go to from Chicago, there's probably at least one place she doesn't go; in fact, there are probably billions of places she doesn't go. Let's see how negated predicates' blanks should be filled in.
6. I think you'll agree that this blank is filled negatively. (Note that That is shorter than nothing means the same thing as That isn't shorter than anything. The first English translation may be taken another way: Ta corta la Noban-That's shorter than Nothing (is).) So instead of negating the predicate, you could negate a blank.
7. Surprise! This is sentence 6 with the no brought forward to the predicate-negating position. To compensate for the move, ba becomes raba. (It may help you to know that raba after a negative predicate is translated anything.) There are three places negation can occur: before the sentence, before the predicate, and before each sutori argument. (As far as non-designating arguments are concerned, there's effectively no difference between negating the sentence and negating the first argument.) When you move no from one of these positions to another, every non-designating variable after the no changes type: Ba becomes raba, and vice-versa. So when the no is moved from in front of ba to negate the predicate, ba (which follows) must become raba. If the negated argument is the third blank of the predicate, no may be moved to the second, then to the predicate
itself, then to the first blank or the head of the sentence, each time changing the type of later non-designating arguments. If you reverse the process, moving no from the front of the sentence toward the back, you must change all non-designating arguments that had followed no before. The general rule is, when moving no, change all non-designating arguments to the right of no's leftmost position. So No, ba becomes Raba no: No[,] ba durzo be bo $\rightarrow$ Raba no durzo rabe rabo $\rightarrow$ Raba durzo nobe ba $\rightarrow$ Raba durzo rabe noba. Got it?

Notice what this means when you're filling in a blank for a negated predicate: You probably want to use raba. So the earlier sentence about Mary probably should have been Mai no pa godzi raba la Cikagos (M didn't go anywhere from Chicago.). Until you're really familiar with how negation works, though, just complete negative sentences; itll keep you out of trouble. For example, if you want to say That's not short, you will probably be tempted to say No, ta corta or Ta no corta-both of which mean that that isn't shorter than anything else (it is as long as or longer than anything else). This is usually not what That's not short means. It means No, ta corta raba or Ta no corta ba: it isn't the shortest thing.
8. So now we move no to the head of the sentence-and there's ba again!

## Exercise 14.1

We've developed No, ta corta ba from Ta corta noba. Now figure out where No, ta corta raba comes from.
9. Remember how your English teacher griped about double negatives? In Loglan, it's all true. So Mai pa godzi noba nobe means $M$ went somewhere from somewhere. When
you're filling in blanks negatively, just remember that an odd number of negatives produces a negative sentence, while an even number will cancel out, leaving a positive sentence. You don't have to worry about this kind of problem if you begin the sentence with No, which is another reason why most Logli do so.

## Exercise 14.2

Work out what Ba donsu nobe nobo and Ba godzi nobe nobo nobu mean when the negatives are brought to the beginning. Remember that no no cancels out, and be sure to change the first argument when you move no ahead of it. Also keep in mind that ba no something is not means the same thing as no raba not everything is, and raba no everything is not means the same as noba nothing is.

## Lopo Purmao

No is another Little Word which adds -r to create a djifoa. As such, it negates the meaning of the next predicate djifoa, thus
norvia _ is blind to/overlooks _ in situation _ [NO(R) VIzkA = no-see]
nornurvia _ is unseen/invisible to _under conditions _ $\quad[\mathbf{N O}(\mathbf{R}) \mathbf{N U}(\mathbf{R}) \mathbf{V I z k A}=$ not-seen]
-Nor- is not the only "negative" djifoa.

Buf- [bufpo opposite] is sometimes prefixed to a word to form its opposite, as in bufbalci ("unbuild") in the preceding lesson. It often has the force of English un-.
-Cle [clesi without], when used as a suffix, is like English -less.
-Pozfa [pozfa oppose], as a suffix, means about the same thing as anti-.

Sometimes it's hard to tell which form to use. Consider unscientific. Does it mean norsensi (properly nonscientific, though some confuse the two), sensycle (lacking scientific basis), bufsensi (opposite in quality from science, superstitious), or sespozfa (antiscientific, antagonistic to science)? Don't blindly follow definitions in dictionaries. Try to discover and translate the thought, not the word.

## Lo Nurvia Logla

## Peu la Karl, ce la Adris

(Dai) Loi, Karl. Ei tu fa hijra lepo la Makinos, fomtaa?
(Kai) Iu. Feu, soi smikycue, mi roirtargo la Adris. Inukou no, mi komfu lopo hijra leAma ckela.
(Dai) Hu fu roirtargo?
(Kai) Lo dreti dicfoa. I lo meAma rina norloglo, a ia logpozfa.
(Dai) Ei ue?
(Kai) Ama fundi lopo durcia, e lo norma po takna. Inukou roba vi logla takna. Ibuo riba logla penso, a speni lo lodji. I lopo lodji penso ga basni la Loglan.
(Dai) Lo no mela Karl, rina dreti. Ama ditca lopo lodpeo tie lopo lenple. I lepo Ama sacdou la Logckel, ga fu modvi lopo danza lopo logdia. Ifeu Ama ditca la Loglan, sa lovi logli.
(Kai) Ibuo lozo lei logli ga he? Ama pebtoa la Loglan. I Lai oa rana spebi cenoi norma lengu.
(Dai) Li roba logli. I robe modvi ba lu. Tu dridja toi, ei? Dau no, ra logli ga nu treci lo lodji.
(Kai) Ibuo ba oa siodja lo lodji, anoi la Loglan.
(Dai) Ii. Ibuo ba spopa lopo lopo leudja la Loglan, ga ckozu lopo siodja. Ae raba siodja la Loglan, e lo lodji. Ibuo ba io pa tio leudja Lai. Tu cia nepa cutse luelepo peu lo mathe, ba rona pakcia lo durfoa lo raznu ca furpli.
(Kai) I ei Ama ditca lo durfoa? Tu sisycia hu, na?
(Dai) Lo meliu no.
(Kai) Cutse le nomfoa je li no, ba donsu rabe no bo lu, eo.
(Dai, fa lopo pensai) Li raba donsu be rabo lu.
(Kai) Lo dreti! I ui tu plizo le nurcuesaa! Ai mi hijra. I ae mi vu duvri su notbi logli.

## Lo Kenti

1. Ei Kai danza na le satci gu hijra lepo fomtaa? Kouhu?
2. Coi Kai, lo meAma dicfoa ga he?
3. Ei lo fu ditca pe Ama logli?
4. Coi tu, ei lo logli ga siodja oa lo lodji?
5. Ei Ama ditca lo durfoa?

## Lona Cninu Purda

Predicate words
basni _ is the base/basis of _
dicfoa _ is a teaching method of _in class _

Clue words (basis [BeiSIs])
[DItCa FOrmA = teach-form]

| dridja | _ is familiar/acquainted with _ | [DRIki DJAno = remember-know] |
| :---: | :---: | :---: |
| durfoa | _ is a method of doing _ under conditions _ | [DURzo FOrmA = do-form] |
| komfu | _ is comfortable in/about _ | (comfortable [KyMFtybl]) |
| lenpli | _ uses language _ in situation _ | [LENgu PLIzo = |
|  |  | language-use] |
| lodpeo | _ thinks logically about _ | [LODji PEnsO = |
|  |  | logic-think] |
| logdia | _ teaches Loglan to _ | [LOGla DItcA $=$ |
|  |  | Loglan-teach] |
| logpozfa | _ is anti-Loglandic, contrary to the spirit of Loglan, in feature $\qquad$ | [LOGIa POZFA = |
|  |  | Loglan-oppose] |
| mathe | _ is a mathematical method/procedure for deriving _ from _(or relating _ to _) | (Sp. matemática |
|  |  | [MATEmátika]) |
| modvi | _ is a motive for _ to do _ under conditions __ is the normal form of expression _ | (motive [MOt(i)V]) |
| nomfoa |  | [NOrMa FOrmA = |
|  | under/within system | normal-form] |
| norlogla | _ is non-Loglandic in language | [ $\mathrm{NO}(\mathrm{R}) \mathrm{LOGLA}=$ |
|  |  | non-Loglan] |
| norma <br> nurcuesaa | _ is an average [instance] of <br> _ is a quotation mark delimiting quote | (normal [NORMI]) |
|  |  | [ NU(R) CUtsE SAnpA = |
|  |  | said-sign] |
| pakcia | _ learns _ before [learning _ | [PAsKo ClrnA = |
|  |  | before-learn] |



## Summary: Lesson 14

1. No negates the word immediately following it; if it precedes an argument or an inflector, it negates the argument or predicate as a whole. Unless it begins an utterance ( $\mathbf{N o}$, ), it tends to imply a contrast (not this but that): no la Meris not Mary (but someone else).
2. No also affects all non-designating variables which follow it. If you move a no in a sentence with such variables, all of them that are to the right of the no's leftmost
position (whether before or after the move) must change type, existential becoming universal (ba becomes raba). In other words, if you move the no left, all non-designating variables to the right of its new location must change; if you shift it to the right, all non-designating variables to the right of its original position must change. (Next lesson we'll look at another instance of this rule about changing the scope of non-designating variables.)

## Lopo Lenbatmi Cirduo

1. No, mi pa donsu tu ta.
2. No mi pa donsu tu ta.
3. Mi no pa donsu tu ta.
4. Mi pa no donsu tu ta.
5. Mi pa donsu no tu ta.
6. Mi pa donsu tu no ta.

It's not true that I gave you that.
I wasn't the one who gave you that.
I didn't give you that.
I didn't give you that. (I was a "non-giver.")
I didn't give you that. (I gave it to someone else.)

I didn't give you that. (I gave you something else.)

Lesson 15: Broadening Your Scope

## Lo Mipli Steti

Note: The translations given aren't absolutely literal; close translations would be too long and involved, obscuring more than they explained.

## 1. Raba danza be.

Everyone wants something.

## 2. Be nu danza raba. ${ }^{1}$

Something (a certain thing) is wanted by everyone. (Everyone wants the same thing.)
3. Raba be goi ${ }^{2}$, ba danza be.

For every x there is y such that x wants y .
4. Raba be goi, be nu danza ba. ${ }^{3}$

For every x there is a y such that y is wanted by x .

## 5. Ra sadji ga penso. ${ }^{4}$

All wise [people] think.
6. Raba sadji, noa penso. ${ }^{\text {s }}$

Everyone is wise only if thinking.
7. Re le pernu goi, pei sadji ba, For most people, a person is wise about x only if that person thinks about x .
8. Oe raba cirna be, noa la Loglan.?

Anyone who learns something, should learn Loglan.
9. Raba goi ${ }^{8}$, be goi, oe ba cirna be, noa la Loglan.

For every $\mathbf{x}$ there is a $y$ such that if $x$ learns $y, \quad x$ should learn Loglan.
$\begin{array}{rlll}\text { 10. Raba } & \text { be goi }^{9} & \text { oe ba cirna be, } & \text { inoca ba cirna la Loglan. } \\ \text { For every } x & \text { there is a } y \text { such that } & \text { if } x \text { learns } y, & x \text { should learn Loglan. }\end{array}$
11. Raba rabe goi ${ }^{10}$ oe ba cirna be, inoca ba cirna la Loglan.

For every x and every y , if x learns y , x should learn Loglan.
12. Raba rabe kanoi ${ }^{11}$ oe ba cirna be ki ba cirna la Loglan.

For every x and every y , if x learns y , x should learn Loglan.

## Lona Cninu Purda

Little Words
goi (Marks right end of a quantifier string; see Notes.)

## Lopo Lengu Klimao

The preceding lesson introduced some peculiarities of the non-designating variables; in this lesson we'll conclude the topic by examining the wonders of quantification and its scope.

## Notes:

1. Oops! Apparently conversion doesn't always work. Before you switch things around, you must look at all the non-designating variablesûincluding the ones which would fill the predicate's unfilled blanks. If you have one or less, go right ahead and convert the predicate. If there are more than one, see whether they're identical in type and sign. If they are, again there's no problem. It's only when you have different types-existential (ba) versus universal (raba), and/or positive (ba) versus negative (noba)-that you must not convert the predicate. Let's see why this happens.

Each non-designating variable limits those which follow it. Raba danza be is the equivalent of saying Something $x$ wants some one $y$-and saying it for every $\mathbf{x}$ (but not, notice, for every y ). This is not the same thing as saying that some one $y$ is wanted by every $\boldsymbol{x}$ (Be nu danza raba). It isn't even quite the same thing as Rabe nu danza ba (Everyy is wanted by some one $x$ ): There could be a y which no x wants, even though every x wants some y . You've got to preserve the same order, type, and sign (positive or negative) among the variables.
2. You can copy quantified arguments of any kind to the head of the sentence. The Little Word goi marks the end of this quantifier string. Once you've copied the quantifiers and negatives, you can omit them from the arguments in the main sentence. Ra le mrenu ga takna raba nobe (All of the set of men (I'm thinking of) talk to everyone about nothing.) would become Ra le mrenu raba nobe goi, le mrenu [or just mei] ga takna ba be.

Note that while raba normally has even stress, in the quantifier string the ra- is accented to make it stand out: RAba be goi,...
3. As you no doubt have realized, this makes all the non-designating arguments into ba-type variables: positive existentials. And since they are all of the same type and sign, you can convert the predicate any way you want. The quantifier string preserves the order, type, and sign of each argument.
4. Another common use for quantifier strings is definition. Sentence (5) is not a definition of wisdom. Can you see why? It relies on designation more than predication. The term to be defined should be a predicate, because it isn't enough that someone appear to be wise-we need to restrict the definition to people who are wise. A definition consists of a quantifier, an argument, a predicate, some form of noa, anoi, or $\mathbf{0}$, and another predicate or clause.
5. Sentence (6) is a proper definition: Everyone $x$ is wise (a claim) only if thinking. It's still incomplete, because some blanks need to be filled in. As it stands, it would be completed with different arguments for the two predicates: Raba sadji be, inoca ba penso bo (Everyone $x$ is wise about $y$ only if $x$ thinks about $z$ ). Because I want to say that being wise about something means thinking about it, I must fill in the blanks with the same argument: Raba sadji be, inoca ba penso be (Everyone $x$ is wise about $y$ only if $x$ thinks about $y$.). This expanded definition leads to two other points of interest.

First, to complete the thought, you must realize that there are two clauses. *Raba sadji be, noa penso be doesn't work, because it connects an argument (be) with a predicate (penso be). So an eeshek is required. (Or we could use je to connect sadji and be.)

Second, you may have noticed that raba turns into plain ba in the second clause. The first clause acts like a goi-phrase, extending the ra- to every clause where the argument (ba)
appears thereafter. So repeating the ra- would be like repeating it after a goi-phrase (*Raba be goi, raba penso be). This goi-like effect only occurs with non-designating arguments, however. This is because $a$ an utterance with a non-designating variable is "said" an infinite number of times-one for each "something" there is. So this sentence
 sadji be ${ }_{2}$, inoca $\mathrm{ba}_{2}$ penso be ${ }_{1}$; and so on, for all the bas and bes there are. And if the sentence is true each time for all of the bas (raba) and for at least one of the bes, then Raba sadji be, inoca ba penso be is true. So the ra- just tells how often the ba must be true. This won't work with designating arguments, as we'll see in a moment, because the identity of the designated group doesn't change.
6. I mentioned in Note (4) that definitions include a quantifier and an argument. Any quantifier will do: a number, a ra-word, or a sa-word. The argument can be designating or non-designating. But designating arguments always require a goi-phrase.

Consider what this definition would look like without explicit quantification: Re le pernu sadji ba, inoca re le pernu penso ba (Most people are wise about something $x$ only if most people think about that $x$ ). "Most people" could be different groups in the two clauses. You may wonder why the re isn't dropped, as it would be with a non-designating argument. The reason is that non-designating arguments aren't predefined, but designating ones are. When I say, re le pernu, I must have a specific group of pernu in mind, and it is to that group, not the majority of the group re singles out, that le pernu refers. If I'm talking about seven people (le pernu), and mean four or more of them by re le pernu, le pernu in the second clause will still refer to the original group of seven. So the only way to ensure that I'm talking about the same re le pernu throughout is with a goi-phrase, and a designating variable thereafter.
7. The expansion of sentence (9) would be Oe raba cirna be, inoca ba cirna la Loglan. This time, only ba appears in both clauses; be doesn't. How will this affect the goi-phrase?
8. The two goi-phrases signal the difference: the first, with ba, runs through the whole sentence. The second, enclosed within the first, runs up to (but not through) the last clause affected by the first goi-phrase ( $2-1=1$ : the first clause, in other words). What would happen if we tried using just one goi-phrase, effectively extending be's scope through the whole sentence?
9. Well, there it is, but what does it mean? Simply put, for every learner, there is a subject somewhere such that learning that subject means learning Loglan. If we allow Be bi la Loglan, an obvious possibility, then clearly everyone who learns be/Loglan learns Loglan. This means much the same thing as Raba goi, rabe goi, ba cirna be, inoca ba cirna la Loglan. So when you extend a variable's scope over clauses where it doesn't appear, its type changes from universal to existential or vice versa.
10. And here we have the one-goi utterance as it should be, with be changed from existential to universal, so that "any $x$ " who learns "any $y$ " should learn Loglan.
11. You can also use keks to extend the scope of a quantifier. Just put the first kek wherever the goi would go and the second part where the eeshek would be

## Lopo Purmao

There are three djifoa for devices: -mai (MAtcl, machine), -pae (PAtcE, apparatus), and -rie (tRImE, instrument).
-Mai complexes refer to machines, often (but not always) motorized or electronic. A computer or similar device is a typical machine in this sense.
-Pae complexes refer to mechanical devices, usually unmotorized. They are frequently complicated contrivances. Scales and clocks (the kind with gears and mainsprings or weights) are typical apparati. Note the difference between kopmai (a copying machine) and kopypae (a pantograph, a mechanism for tracing pictures).
-Rie complexes refer to tools: generally simple implements, such as hammers, screwdrivers, and drills. Tools differ from apparati in simplicity and (usually) in versatility. A screwdriver or hammer has a wider range of uses than a clock. This is sometimes used for abstract means of achieving some end, as penrie (an instrument of thought, such as Loglan is hoped to be).

Roughly put, if it's simple in design, it's a tool; if it's more complicated but still mechanical, it's an apparatus; and if it's anything else, especially something higher tech, it's a machine. As a final example, consider caprie (a die or stamp for making an imprint), capypae (an old-fashioned printing press with movable type), and capmai (a modern printer).

## Lo Nurvia Logla

The following is an excerpt from Mr. Makino's speech.

## Hu Sitfa la Loglandias?

Roba cutse luelepo moihu mi logli. Irea robe modvi. Ice robo raznu. Ibea Lai ia sesrie. Ipiu, ne lemi gandia pa danza lepo sesduvrai lo mela Loglan, nurkai ce nurcko. Isui Lai ia hirtakrie. Ipiu mi logduo ne notbi stude. I sei na merji mi. Inurau la Loglan, djipo ia mi. I Lai nurmue jurnyrie mie. Ipiu mi ze sei logla turka. Ibuo na lopo ba kenduo mi la Loglan, gu lemi retpi ga notbi, e rana stari ba. I Lai ia racrie. Feu, mi cutse luelepo lopo racyspe la Loglandias, ga mutce pluci ce treci mi.

Neba uu uo cutse li La Loglandias! Hu sitfa la Loglandias?lu. I ba rea blemao mi lo cartu.

Ie le gunti? No, Lai dzabi!, hue ba.

Raba gunti, anoi he?, hue mi.

Ra gunti ga nu godzi. Isui ra nu godzi ga fizdi. I la Loglandias, kisoa no fizdi ki no gunti, hue ba.

Letu pogmai ga katli ho radridmai?, hue mi.

Ue ei? To norstifa, e ne stifa, hue ba.

Ibuo letu baprysio ga listyduo fe rei, hue mi.

Toba duodza radridmai, hue ba.

Liu duodza sanpa luelepo rei no fizdi dzabi, e buo durcli lo fizdi ia dzabi, ei?

Ia.

Nao la Loglandias, duodza gunti. LoLai sitci ga logli grupa, e sui pogmai netclisio. I ba spegoi Lai tie lo telfo ca kotytelfo. Isui ia be retca lenfoa ce kultu. Kanoi tu dutci toi, ki oa tu duvrai spegoi Lai. I mi ui gozkii tu. Ibuo fao, kisoa lo logli ga durcli lo nu gunti je Lai, ki rea Lai gunti lei, ica Lai dui go duodza.

## Lo Kenti

1. Moihu la Makinos, logli? (Plizo, eo, leMai retpi.)
2. Ei la Loglandias, nu cartu?
3. La Loglandias, he?
4. I duohu ba godzi Lai?

## Lona Cninu Purda

| Predicate | rds |
| :---: | :---: |
| baprysio | _ is the operating system of computer _ |
| hivdu <br> blemao | $\begin{aligned} & \text { _ behaves _ under } \\ & \text { _ shows [person] _ }^{[\text {thing }]_{~}} \end{aligned}$ |
| cartu <br> duodza | is a map of _made by is virtual in function in system/conditions |

Clue words
[BAPRa (Y) SIstO = operate-system]
(hehave [BIheiV], do [DU])
[BLEka MAdzO = look-make]
(chart [tCART])
[DUrzO DZAbi $=$ do-exist]

| durcli dutci | _ acts like _ in action <br> _ doubts that _ is true | [DURzo CLIka $=$ do-like] (doubt [DaoT], dubious |
| :---: | :---: | :---: |
|  |  | [DUbI,ys]) |
| fizdi gozkii | _ is physical/concrete (not abstract) | (physical [FIZIk]) |
|  | _ goes with _ to _ from _ via | [GOdZi KIncI = |
|  |  | go-accompany] |
| hirtakrie | is a tool of communication used by under conditions | [HIRti TAKna tRImE = hear-talk-tool] |
| jurnyrie | is a means of earning ("gainful employment") for _ under conditions | [JURNa (Y) tRImE = earn-tool] |
| kotytelfo | _ is a modem in system _ | [KOmTa (Y) TELFO = computer-telephone] |
| lenfoa | _ is a dialect of language _ used by _ | [LENgu FOrmA = |
|  |  | language-form] |
| listyduo | _ lists elements _ of list _ | [LISTa (Y) DUrzO = |
|  |  | list-do] |
| netclisio | _ is a network of members/nodes _ | [NETre CLIka SIstO = |
|  |  | net-like-system] |
| norstifa | _ is flexible/non-rigid in movement _ | [ $\mathrm{NO}(\mathrm{R}) \mathrm{STIFA}=$ non-stiff] |
| nurmue | _ is more moderate than _ in quality _ | [NU(R) MUtcE = exceeded] |
| racrie | _ is a means of travel to _from _ via | [tRACi tRImE = travel-tool] |
| racyspe | _ experiences [place, culture, etc.] _ | [ $\mathbf{R R A C i}$ (Y) SPEni $=$ |
|  |  | travel-experience] |
| radridmai | _ is a disk drive in system _ | [RAnDe RIDle MAtcI $=$ |
|  |  | round-read-machine] |
| retca | _ differs from _ in feature _ | (different[difeREnT]) |


| sesduvrai | _ experiments with _ to find _ | [SEnSi DUVri tRAcI $=$ |
| :---: | :---: | :---: |
|  |  | science-discover-try] |
| sesrie | _ is a scientific instrument for _ | [SEnSi tRImE = |
|  |  | science-tool] |
| sitci | _ is a city/town with hinterland _ | (city [SITI]) |
| stari | _ surprises/startles _ by [doing] _ | (startle [STARtI]) |
| stifa | _ is stiffer than _ in direction | (stiff [STIF]) |

Little Words
piu in particular (free modifier)

Summary: Lesson 15

1. Every non-designating variable influences the range and meaning of all other non-designating variables which follow it in a given clause. This is why it's important to know the exact scope of these variables and to avoid moving them around (by conversion) in a way that changes the meaning of a sentence.
2. Non-designating variables may be moved outside of their clause, leaving only convertable positive existentials behind. These variables must be separated from the rest of the sentence by a scope-extending device, usually goi. Such fronted variables form that clause's quantifier string.
3. If there are different scopes involved, for example, two connected clauses which share some variables and not others, each variable should be moved in front of its own clause. A variable which appears in both clauses would be written in front of the first clause's
quantifier string. To keep it from applying only to the first clause, two gois (or other scope-extenders) would be needed: one for the long-scope variable and another for the first clause's variables, if any. (If there aren't any, you'll have to leave a blank and use goi goi. You must have both scope-extenders.)
4. If you move a non-designating variable outside of its original scope, you must change its type every time it changes scope: existential to universal (ba to raba) and vice versa.
5. Quantified arguments of any kind should be moved to quantifier strings when their scope extends over more than one clause.

## Lopo Lenbatmi Cirduo

1. Coi lepa nu cutse, raba logli, anoi he?
2. Raba logli, anoi logla penso be.
3. Ei bo oe gudbi cutse li Raba logli, anoi logla penso rabe lu?
4. Ei tu nusoa logli?
5. Ifeu uu no. Ae mu fazi logla penso rabe.

According to what was said before, what is a Logli?
Everyone is a Logli who thinks in Loglan about something.

Shouldn't one say rather "Everyone's
a Logli only if they think in Loglan about everything"?

Are you a Logli, then?
In fact, unfortunately not. I hope we soon will think in Loglan about everything.

6. Ei no, lopo plizo lo gleca kou tio nardu?
7. Soi smikycue, lo gleca ga nardu lo logla mi nokou raba.

Wouldn't it be hard to use English as a result of that?

Confidentially, English is harder than Loglan for me regardless.

Lesson 16: Dealing with Relatives

## Lo Mipli Steti

1. Le bukcu ji ${ }^{1}$ vile bakso, ga treci.

The book which [is] in the box is interesting.
2. Le bukcu $\mathbf{j a}^{2}$ vile bakso, ga treci.

The book, which [incidentally] [is] in the box, is interesting.
3. Le bukcu jie ${ }^{\mathbf{3}}$ lea brito lartygra ga famva.

The book which is also known as one of the [class of] British classics is famous.
4. Le bukcu jae ${ }^{4}$
lea brito lartygra
ga famva.
The book, which [incidentally] is one of the [class of] British classics, is famous.
5. Le bukcu jio mifa donsu tu bei, ga treci.

The book such-that I will give you it is interesting.
6. Le bukcu jao ${ }^{6}$ mi fa donsu tu bei, gatreci.

The book, such-that [incidentally] I will give you it, is interesting.
7. Lio $\mathbf{4 5 0}$ dalra pa nufe' ketpi [ba be bo bu]
$\$ 450$ was a price [to x from y on z of ticket h ]
8. Ga
[first argument delayed] wants $y$ [first argument follows] every $\mathbf{x}$. Every x wants a y .
9. $[\mathrm{Be}] \mathrm{Bo}$
gi ${ }^{9}$
raba
danza.
[y] for-purpose $z$ [end of fronted final arguments] every $x$ wants.
Every x wants [some y ] for some purpose [z].
10. $\mathbf{T a}$ sao $^{10}$ li, lio to.

That's [borrowed predicate follows] measures-in-li the-number two.
That's two $l i$ long. (Remember the archaic Chinese measurement from Lesson 12, note 11?)

## Lona Cninu Purda

Predicate words
bakso _ is a box
brito _ is part of British culture
ketpi _ is a ticket to _ from _ on _ for price _
lartygra _ is a classic in field/genre _ among _

Little Words
ga Announces a postponed subject (before the predicate) and marks the subject itself (after the predicate and before the argument) See note 8.
gi Marks the [righthand] end of a string of fronted arguments. See note 9.
ja Predicating link (acts as first argument of secondary/incidental claim); see note 2. jae Predicating membership link (introduces a secondary/incidental claim); see note 4.
jao Predicating link (introduces a secondary/incidental claim); see note 6.
ji Identifying link (acts as first argument of secondary/incidental identification); see note 1 .
jie Identifying membership link (introduces a secondary/incidental identification); see note 3.
jio Identifying link (introduces a secondary/incidental identification); see note 5 .
nufe Fourth passive (the one after ju), switching first and fifth arguments. See note 7.
sao Introduces a borrowed predicate; see note 10 .

## Lopo Lengu Klimao

This lesson deals primarily with relative constructions, devices for mentioning in passing some fact which either identifies something or just gives further information about it. This is often handy, but from a logical standpoint it's better to use separate sentences, which is why I've waited so long to mention the topic. Perhaps by now you're so used to using separate sentences that you won't go overboard with this feature.

Loglan has two types of relative devices. When a relative pronoun refers to an argument, use one of the ji-words: Le bukcu ji redro ga treci (The book that is red is interesting). When it refers to a predicate, use go: Ta bukcu go redro (That is a book which is red).

Finally, we'll look at some variations on nu and $\mathbf{j e}$, and at ways of changing the usual word order.

## Notes:

1. Ji introduces a sort of abbreviated bi-utterance. The example sentence means much the same thing as Le bukcu (bei bi le nenri je le bakso) ga treci. But look how concise the ji-phrase is! You just mention something which tells your listener where to look: a place ( ji vi here), a time ( ji pa lepo tu bracea before you were born), a description ( ji le redro the red one), or a name ( ji la Bibl the Bible). The equivalent bi constructions could take up a lot of space.

You can also use a predicate (lemi brudi ji ditca my brother who teaches); the meaning is about the same as a description (lemi brudi ji le ditca my brother who is the teacher), and a bit shorter. (In fact, the difference is that le ditca assumes that you've mentioned him before: the one in question who seems to teach. The predicate is probably the first reference to his teaching; it doesn't point to a previously-mentioned person, but gives information on what type of person he is-the type you might see leading a class, perhaps.)

Incidentally, just as gue closes off the last open je-phrase and guo ends the last open po-phrase, so gui terminates ji-phrases (and their relatives: ja, jie, etc.). It's a little easier to get into trouble with an unclosed ji-phrase than it is with the others, so again, if in doubt, use the specific terminator provided.
2. Ja introduces a predication, though it otherwise works just like ji. The claim is incidental (and by the way, _); it doesn't identify. You can probably understand how Le bukcu ja redro could be a short version of Le bukcu (bei redro). But how can vi le bakso predicate? In this case (and wherever non-predicates are used after ja), the phrase
is in effect an argument or modifier for an unstated predicate. The parenthetical remark might be (bei dzabi vi le bakso) (it exists in the box). (It could also represent an actual predicate: bei (bei nenri le bakso) it is in the box.) Likewise, lemi brudi ji le ditca would be short for lemi brudi (bei bi le ditca), while lemi brudi ja le ditca would be short for lemi brudi (bei samto le ditca) he is the same as the teacher.

This brings up an important question: what is the difference between Le brudi bi le ditca (The brother is also known as the teacher.) and le brudi samto le ditca (The brother is the same as the teacher.)? You may recall that claims are not generally about designations, but about the things designated (designata). So samto claims that the things designated by the labels "le brudi" and "le ditca" are the same. Bi utterances, on the other hand, are always about designations, never designata. So the bi sentence links two labels ("le brudi" and "le ditca") as equivalents: you can use them interchangeably.

This distinction seems vanishingly small in English. Don't the sentences mean the same thing? Ultimately, yes, just as Dave hit the ball and The ball was hit by Dave mean the same thing. But there is a difference of focus and viewpoint. In Loglan, statements about labels and statements about the things labelled are just as distinct.
3. Jie is to bie what $\mathbf{j i}$ is to $\mathbf{b i}$. The identification points vaguely to some member of $\mathbf{a}$ group.
4. Jae is the predicating version of jie. It introduces an incidental claim of membership in a group.
5. Jio (such that) is used for links to a sutori place of a predicate. Ji and jie act as the first argument of any following predicate (Mi ji donsu tu le bukcu I who give you the book). Note that you do have to refer back to the original argument (as bei refers to le bukcu in the example sentence). Otherwise, how could anyone know which place the argument fills?

## 6. Jao is the predicating version of jio.

7. New trick: $\mathbf{N u}+\mathrm{a}$ number will switch the first blank of the original predicate with the one the number refers to. In this case, nufe affects the first and fifth blanks. (In fact, if you wanted to annoy people, you could technically use nuto for nu, nute for fu, and nufo for $\mathbf{j u}$. This is not a good way to win friends, though.)
8. If you place any member of the PA lexeme in front of the predicate, you can put its first argument after the predicate. (This is why you can't leave inflectors in front of commands, as mentioned in Lesson 2.) In fact, you can go ahead and finish the other blanks first. But you must mark the first argument with ga. So you could say Rau danza be [bo] ga raba (Everyone justifiably wants something [for some purpose]) or Vi danza ga raba be [bo] (Here, everyone wants something [for some purpose]). (The [bo] could be left out in either case.)

You're probably wondering why we can get away with re-ordering non-designating variables here, when we couldn't with converted predicates. In fact, the re-arranging is only apparent; the blanks are still numbered the same way they were before. In conversion, however, a new predicate is created, so the movement is not an illusion in that
case. Delaying the first argument with ga doesn't create a new predicate with a different order of arguments, and neither does the fronting manuever in the next example.
9. Gi marks the end of a group of blanks which have been fronted, that is, moved to the head of the sentence. As you may have guessed, it's related to goi; in fact, goi is a special version of gi reserved for quantifiers and negatives. The main goal of gi is to let you cut right to the predicate's last blank. You must use the last blank right before gi, but you may skip all of the others. All but the first blank, that is, which will normally follow gi, unless the utterance is a command (Ti gi ridle! Read [out of] this!) or you're using ga as well (Bo gi ga danza be ga raba).
10. Sao [borrowing], (note the comma) is a device for bringing foreign words into Loglan. All sao borrowings are predicates; another Little Word, lao, is used for borrowing a word as an argument. (These arguments are followed by a pause, just as sao predicates are.) Sao is generally more useful because you can make arguments out of sao borrowings with one of the army of descriptors we've met so far.

You're probably wondering why I didn't mention this in Lesson 1. I could have.
However, sao almost begs to be overused by beginners, so it's better they not even know it exists until they have enough experience and Loglandic maturity to use it properly. As a rule, you should only use it for a spur-of-the-moment borrowing of a culture-specific term. Otherwise, just think up a complex or follow ordinary procedures for borrowing words. (These are detailed on pages 430-453 of Loglan One, available from the Loglan Institute, Inc.; see page 394 for more information.)

## Lopo Purmao

In the reading which follows, we'll talk about discovering (-dui from DUvrl, discover) and experiencing (-spe from SPEni, experience).
-Dui/duv- is used for discovering information. It is especially common in math, as in sumdui find the sum of_and _[SUMji DUvrI = sum-discover]. The discovery is often, even usually, intentional. It is also more intellectual.

You've already encountered -spe and speni. Experiences are more intense and less intentional than discoveries, at least where -spe and -dui are concerned.

Consider the following pair:
ridydui _discovers _ by reading about it
ridspe _ experiences _ by reading about it
[RIDle (Y) DUvrI = read-discover]
[RIDle SPEni = read-experience]

The first involves researching a topic; the second, vicariously living something you read about. This difference often exists even when these djifoa are prefixed:
duvcia _ learns [about] _ by exploration [DUVri CIrnA = discover-learn]
specia _ learns [about] _ by experience [SPEni CIrnA = experience-learn]

Finally, -hea (from HEIbA, help) refers to various kinds of assistance:

| cirhea _ tutors _ in subject _ <br> cmehea _ underwrites/subsidizes _ in undertaking _ with amount | [CIRna HEIbA = learn-help] [CMEni HEIbA = money-help] |
| :---: | :---: |
| donhea _ donates to _ gift _ for cause _ | [DONsu HEIbA = give-help] |
| tcihea _ feeds _food _ | [TCIdi HEIbA = eat-help] |

## Lo Nurvia Logla

## Fao, la Loglan, he?

Mi trati lepo repduo toi vi le satci je le bukcu. Ae lezo tu na spedja lo logla nurkai, na tsufi lepo tu kanmo lepo repduo. La Loglan, retca ia rea la Inglic. Ae tu fundycea loLai norgleca penfoa. Lozo Lai cildrecni rina ii roicko. Ibuo lopo Lai tenri lo nurpeo ga io tsufi nufo barda tu lopu nardu ce turflo.

Uu tu pa duvri siriba ji lo treci ca lodhea nurkai je la Loglan. Isui robe lengu plefoa, e loglo, pae. Ifeu Lai groda nurpeo go cmalo nurduisia. I li la Loglan, he? lu soa no na nu repduo. I tu ao repduokii lo notbi logli.

Nao peu le notbi kentiji li Moihu mi rairfau? lu, gea ao tu kanmo lepo repduo. Lo stupeu jio mu ridle jmite sei vi lo mipli nursri, ga nu raznu ce nu modvi ro retca lopo logcia. Ibea la Deinys, hapci cirdui lo lengu ce kultu. I Dai fundi lenspe lo lodji. I la Karl, io haispe lopu Lai lodhea, e cildrecni. I Kai sui tie lodspe. I la Betis, nu pluci lopu Lai vefhea. I la Sitas, io nu treci lo loglo larte. I leSai merji lenspe lo loglo, e lo logli. Ifeu, soi smikycue, raba jie vi fikco logli, ga cmiza ia Lai.

Coa, la Loglan, ii hirtakrie lo logli, a lei ze lo pogmai. Isui Lai, ii, racrie su duodza gunti. Isui ii Lai penrie. Lai soa meliu ii, lengu. I hea tu, ae, Lai fa meliu ia.

Fao, la Loglan, he? I, moihu tu selfatru? Feu, tu ze ni notbi fa repduo, ii coi lemi retpi. Ica no coi. Ibuo lo mela Loglan, nurkai ce cirmoi fa metu. Djudi le lengu. Ico djudi tu.

## Lo Kenti je Lotu Nu Jupni

(These are personal enough you will have to work out the answers on your own.)

1. Ei tu fundi lo norgleca nurkai je la Loglan?
2. Hu nu fundi ca no nu fundi logla?
3. Hu modvi ca raznu lopo tu logcia?
4. La Loglan, he?

## Lona Cninu Purda

Predicate words
barda _ rewards _ for _ with _
cildrecni _ is precise/exacting for _ in area _
cirdui _ discovers _ by learning about it from _
cirmoi _ is a motive for _ to learn _
cmiza _ is amused by _
djudi _ judges _ to be _

Clue words (reward [riuARD])
[CITlu DREti CNIda = detail-correct-need]
[CIRna DUvrI = learn-discover]
[CIRna MOdvI $=$ learn-motive]
(amused [yMIuZd])
(judicial [DJUDIcI])

| fundycea | _ grows fond of _ | $\text { [FUNDi }(\mathbf{Y}) \text { CEnjA }=$ <br> fond-become] |
| :---: | :---: | :---: |
| lenspe | _ experiences _ through language _ | [LENgu SPEni $=$ |
|  |  | language-experience] |
| lodhea | encourages/promotes [the use of] logic in _by | [LODji HElbA = logic-help] |
| norgleca | _ is non-English in feature _ | [NO (R) GLECA = |
|  |  | non-English] |
| nurduisia _ is a known/explored area for people _ |  | [ NU (R) DUvrl SitfA = |
|  |  | discovered-place] |
| nurpeo | _ is a topic for thought to _ | [ NU (R) PEnsO = thought] |
| penfoa | is a thought-form, a way of thinking | [PENso FOrmA = |
|  | used by _ under conditions _ | think-form] |
| penrie | _ is a tool for thought used by _ | [PENso tRImE = think-tool] |
|  | under conditions |  |
| pl | _ is a game played by _ | [PLEci FOrmA = play-form] |
| repduokii | _ j joins _ in answering question _ put by _ | [REtPi DUrzO KIncI = |
|  |  | answer-do-accompany] |
| stupeu | _ is a character in story _ | [STUci PErnU = |
|  |  | story-person] |
| tenri | _ increases _ by _ in dimension _ | (increase [iNkRIs], |
|  |  | extend [eksTENd]) |
| turflo | - is arduous for | [TURka FO/Lma = |
|  |  | work-full] |
| vefhea | _ enhances/encourages creativity | [VEtFa HElbA = |
|  | for/in [person] _ by _ | invent-help] |

## Summary: Lesson 16

1. There are two types of relative constructions in Loglan: those that identify and those that predicate. All relative markers begin with $\mathbf{j}$-followed by either -i- (identifying) or -a- (predicating or asserting).
2. $\mathrm{Ji} / \mathbf{j} \mathbf{a}$ act as the first argument of a (sometimes incomplete) identification or predication.
3. Jie/jae act as the first argument of an identification or predication based on membership in a set or class.
4. Jio/jao introduce an identification or predication where the linking word (the word that is modified, as in the man [whom] I saw) is not the first argument. This word will be repeated, usually as a variable, in the relative clause: le mrenu jio/jao mi pa vizka mei.
5. "Passives" after ju are formed by suffixing to nu the number of the place brought forward.
6. You can postpone the first argument of a predicate by placing any inflector before the predicate and then marking the first argument with ga.
7. The sutori arguments of a predicate may be brought to the beginning of the sentence, but they must be separated from the rest of the sentence by gi.
8. Rearranging arguments with gi and ga doesn't create the problems that conversion does, because the change is only apparent: the actual place structure of the predicate remains the same.
9. Sao and lao introduce a borrowed word (followed by a pause) used as a predicate and an argument, respectively. They should be used sparingly to import culture-specific ideas into Loglan.

## Lopo Lenbatmi Cirduo

1. Le tora ji va skitu na penso ia! Hu vetci?
2. Ta po sao go.
3. Lao go, ja ponjo plefoa gui, ga treci, e nardu.
4. La Makinos, jae lea siodja lao go, feu no ga sao go, spuro.

That pair is really thinking. What's going on?

It's a game [instance] of Go.
Go, a Japanese game, is interesting and difficult.

Makino, one of those who
understand Go [i.e., its rules], really
isn't a Go expert.

## Lo Nurvia Logla:

## English Translations

3:
B [rother]: Well, the learner reads attentively [is absorbed in reading]. And what are you reading?
[Beginning] L[oglanist]: This book.
B: Of course! But what kind of book is it?
L: It's an interesting one.
B: You sure think like a Loglanist! Is it a Loglan book?
L: Oh. Yes, it's a Loglan book.
B: In fact, it's a textbook.
L: Yes. I have to go now. My study group is having talking [oral] practice during this night [tonight] at the school. May I use your car?

B: Yes, [you may,] but it's broken [not running].
L: What! What caused that? [How'd that happen?] It wasn't broken this moming!
B: Have you lost your bicycle?
L: No, but the school's very distant [a long way off].
B: I hope [Maybe] I can give you a ride [back] here later.
L: I hope so!
B: Of course, you can stay here. I hope to fix the car quickly.
L: What? Thanks, I shouldn't. I have to leave now. Please be ride-giving kind to me later! [Do me a favor and pick me up later!] Bye!

4: At the school
Dana: Hi, Paul!
Paul: Hi, Dana! How are you?

D: I'm tired. In fact, I biked here. Carl's car is broken.
P: Too bad! And...Hi, Audrey! And who's this?
Audrey: Hi, Paul, Dana. This is Dr. Inés Del Río. [A medical doctor, not a professor.]
D: I'm pleased to meet you! I'm Dana.
P: Pleased to meet you! I'm Paul.
A: [But] Dana doesn't look happy. [This is a follow-up to Paul's jmihapci.]
P: Dana's mad at the brother. [In English, we'd actually use "his" or "her" rather than "the."]

D: I'm not mad.
I[nés]: You're a new [lit. young] Loglanist, aren't you, Dana?
P: Yes, and Carl's a Loglanist, but he won't help Dana.
I: Who's Carl?
P: Carl is the brother of Dana.
I: Oh! Your brother doesn't use Loglan around you?
D: Yes, Carl does use Loglan. In fact, Carl doesn't bother me. Paul, however,...
P: Be nice, Dana! You're just grumpy because you're tired. Dana actually biked here.
I: And it's so cloudy! You'll be rained on [get wet]! Let me give you a ride.
D: Thanks, but it shouldn't be necessary. Carl will certainly give me a ride.
(The group leaves the school.)
P: It's cleared up! In fact, there isn't a cloud around! And it had been very [so] cloudy!
D: Hey! It's Carl! Apparently the car's fixed!

5: What's Betty [like]?
D: Who fixed the car? Obviously you're not a car-repair expert.
C[arl]: Unfortunately you're right. Betty fixed it.
D: And who's Betty? [The question implies that Dana might have heard of Betty.]

C: Betty's the one who fixed the car. Don't get mad! In fact, you don't know her. "What is Betty?" is better than your question. [would be a better question]

D: Better for what?
C: Let's just say it would be more interesting.
D: Thanks a lot! So what is Betty?
C: I will gladly answer your thoughtful question! She's a friend of mine, and I think she looks a lot like [is very appearance-similar to] Audrey. But she's shorter than Audrey.

D: And is this one who looks like Audrey a Loglanist?
C: I'm teaching her. I'm an expert Loglan-teacher, and she's a car expert.
D: And how does the car expert drive?
C: She races around in a car that's older than she is. [A literal translation would be a bit hard to understand.]

D: She clearly isn't a wise driver for a car expert. Audrey, on the other hand, is a very wise driver.

C: I don't know about that, but Betty's kind. She's much kinder than Audrey.
D: What? Maybe Betty's kinder to you than Audrey [is], but Audrey's really very kind.
C: In fact, Audrey may be kinder to you than [she is] to me. But let's be friends [talk in a friendly way]. OK?

D: Sure. [Of course I will.] I hope to meet Betty. And I hope she'll be as kind to me as Audrey [is].

C: I hope she's as kind to you as [she is] to me.
$6:$
C: Hi, Dana! And what did you learn at school?
D: Audrey connective-talked [talked about connectives].
C: What kind of connectives did she talk about?
D: What? I don't understand.

C: There are logical connectives and causal connectives. The word a, for example, is a logical connective, and the word kou is a causal connective.

D: Apparently she talked about logical connectives.
C: Now then, do you want to learn some Loglan or go to a restaurant tonight?
D: Both. I'll gladly learn Loglan and go to a restaurant, if you'll join me.
C: I guess I eat only if I tutor you.
D: Apparently I'm buying the meals?
C: That, obviously, is the fee for tutoring.
D: I agree, if I get to pick the restaurant. We could go Mexican or maybe Chinese. I can't make up my mind! Would you prefer Mexican or Chinese?

C: I prefer your answer: Both.
D: Mexican and Chinese?
C: Yes. You should have said "or...but not both," not "and/or": "we'll go to the Mexican [restaurant] or to the Chinese [restaurant], but not [to] both." Anyway, I'm really very hungry. Besides, we'll use more Loglan. You can order in Loglan.

D: I don't think anyone uses Loglan in these restaurants. [the ones in question]
C: Of course someone does! That someone will be us!

7: At the Mexican restaurant
C: Hey! Hey, Waiter! Obviously no one pays any attention to customers here.
D: Maybe if you used English or Spanish, someone would wait on us. I doubt anyone here is both a waiter and a Loglanist!

C: As a matter of fact, I know that waiter. And he is a Loglanist!
D: Oh. Maybe he'll come over to us if you call his name.
C: Perhaps you're right.
Hey, Tom!

T[om]: In fact, my name is Tomás. Hi, Carl!
And obviously you, O Stranger, are nuts if you're being tutored in Loglan by Carl.
Or you're a relative of his. Oh, you must be Dana!
D: I am Dana. Are you a friend of my brother?
$C$ : He's a friend and annoyance of mine.
And now, O Friendly and Annoying Waiter, may I order something?
T: Tomás Del Rio is happy to serve you.
D: Del Rio! Are you related to Inés?
T: She's my sister, and she's visiting me.
D: Are you really Mexican?
T: I'm Mexican-American. But actually this restaurant is owned by the Chens. On the other hand, Miguel Hernández owns the Chinese restaurant. These restauranteurs are really into cultural exchange [are real culture exchangers], aren't they?

C: Is this really a restaurant? Do you sell food or just joke here?
T: Both, obviously.

8: Betty calls up
D: Hello. Dana speaking.
B[etty]: I'm Betty. Could I talk to Carl?
D: I'm sorry, he isn't here. I'd be happy to take a message. [relay (your) topic]
B: I don't know. When will he get back.
D: I don't know for sure.
B: Hmph!
D: May I ask you a question?
B: I suppose.
D: Which Betty [are you]? Are you the friend of Carl?

B: I'm a friend of Carl. But I don't quite know who...I mean...I mean...Oh, forget it! [She's trying to say Ibuo no, mi sirdja ie leKai fremi ji nu nursancue tu (But I'm not quite sure which of his friends is referred to by you $[=$ you mean $]$. This is beyond her knowledge of Loglan, and at present beyond ours, too.]
D: What a dummy I am! Of course I must be more clear! The friend [in question] fixed his car.

B: Yes, I'm that friend.
D: Great! He's talked to me about you. Don't worry! What he says is good, of course. So cars interest you?
B: Yes. Has Carl told you about my car?
D: Is it fast and older than you are?
B: No! In fact, the chasis [shell], not the important stuff, is old. The motor, for example, is new [young]!
D: What are the important parts of a car? For instance, motor and brake system...
B: Yes. In fact, the motor, the brake system, the frame, the steering, and the electrical system are the important parts of the car.
D: Oh. I don't understand cars.
B: I'd be happy to teach you about cars. Carl and I teach each other.
D: Oh. You sure know how to use Loglan. [You're certainly an expert Loglan-speaker.]
B: How kind of you! Unfortunately, no. I can easily talk to in Loglan about cars. But other subjects are very hard.
D: I have the same kind of problem! [or "Me too!"] Familiar subjects are easy.
B: Thanks! May I come to your house this evening?
D: You bet! And Carl will certainly be here!
B: Thanks! Bye!
D: Take care!

9: Meet Betty
C: Hi !
D: Well! I about gave up on you coming [back] here!
C: What happened?/What's going on? [The Loglan reflects Carl's ignorance of whether something has happened, is happening, or will happen.]

D: Betty called. She hope[d] to talk to you.
C: About what?
D: I don't know. Apparently the Loglan[-use] teacher is learning about cars from the car-repair teacher. Interesting!

C: Of course I enjoy learning and teaching.
D: Oh. And will Betty have to use Loglan tonight? You see, she's coming over.
C: What? Again, of course.
D: And that's probably why [the causal circumstances of the fact that] your students don't like you.

C: In fact, they're just joking. Betty, for example, certainly likes me.
D: Obviously!/As is well known!
C : Are you sure she's coming [to us]?
D: Yes. And please stop pacing [bothered walking]!
C: Are you staying?
D: Yes, of course! She certainly wants to meet me!
C: Quiet! Betty's here! Please come in, Betty! How beautiful you are [tonight]!
B: How sweet of you to say so! [How kind-spoken you are!] And This must be Dana. Pleased to meet you!

D : The pleasure is mine!
C: Well, we're all happy! Unfortunately, Dana's got to go now.
D: Actually not.

B: Anyway, I'd like to talk to you and Dana together, Carl. I have a question about learning Loglan. And I'd like you and Dana both to answer it.

10: Betty's Question
B: Why should I learn Loglan? [What justifies it?]
C: What makes you ask?
B: You're a programming expert, Carl; that's why you're interested. And Dana apparently is into stuff about languages and cultures. But I'm a mechanic. I repeat: Why should I learn Loglan?

C: What should keep you from learning Loglan? [Despite what are you learning Loglan?]
B: Apparently, Loglan is useless to mechanics.
C: How [according to what] is Loglan useless? You enjoy learning it. Doesn't that matter?

B: It is important to me, but it doesn't help in life.
C: And what does help in life? Actually, in other words, Loglan has no monetary value, right?

B: The Boss thinks Loglan is useless because it doesn't improve my skill as a mechanic.
C: So what? In fact, Loglan does improve your ability to think creatively. And isn't creative thought involved in [a quality of] mechanical expertise?

B: Yes. But why are you silent, Dana? Do you agree with Carl?
D: Yes. He makes a lot of sense [talks very wisely]. Certainly what you enjoy, if it makes you better rather than worse as a person, is worth learning [is good for being learned]. And you certainly work at improving your expertise. That's because improving your expertise and enjoying learning are part of the way you are [are qualities of you]. That's why you clearly should learn Loglan.
B: I'd like to use Loglan like you, Dana!
C: And with my help, you will. And Dana might help, too.

## 11: Mrs. Makino's Letter

[Mrs. Makino is not Japanese herself, but the opening of the letter briefly reflects Japanese style until she hits her Loglandic stride and moves from a formal to a more personal style. This is not the sort of letter an American Logli would write-which is, of course, just fine.]

Dear Madam,
I hope that the summer heat is not troubling you. Japanese summers are probably hotter than yours. (Fortunately for you!) My husband and I wish to express our thanks to you for the invitation. Of course we are delighted to accept [lit. agree to do]. Please excuse me, but I must inform you that my Husband, not I, lectures. Although I co-author books with him, I actually follow him around [to lectures] and note down his ideas. (And he organizes them according to my notes.) So I am the Author, and my husband is the Lecturer. (Ha-ha.) [Her (Laugh) is difficult to translate gracefully.] May we nevertheless attend your meeting?

We are now composing "Where is Loglandia?" I hope and believe that it will help you. If you both understand Loglan culture and recognize Loglandic places, you will be comfortable about being a Loglanist. (Knowing the uses of Loglan is also comforting.)

Our experience with cultural exchange using Loglan might be another topic. You probably know how we met [our meeting-story]. I was an Indian student in Japan, and he was an assistant to my professor. We decided to learn Loglan together. Soon we were more comfortable in Loglan than we were in our other learned languages. (Of course, I now speak, but not write, Japanese. And he is comfortable with Hindi.)

Anyway, experiencing other cultures certainly improves one. If you prefer the other topic, we would certainly agree [lit. say "agreed."].

Again, thank you, and take care!

Sita

12: An arithmetic lesson
Megan: And what is five times three?
Paula: I don't know.
M: Paula, think! Five times three is another way of saying five plus five plus five.
P: So fifteen.
M: Correct! Five times three is fifteen. And please don't look at the clock again!
P: But the arithmetic lesson lasts forty-five minutes! We started at eleven, and now it's twelve! The lesson's gone an an hour, now!

M: I thought you knew how to use numbers! But actually I told you that this lesson would last one hour.

P: So now we're done! Right?
M: Perhaps. But you must pay more attention to learning [learn more attentively]!
P: Numbers aren't interesting.
M: But they just interested you. Of course, they don't seem relevant to life. Right?
P: I guess.
M: So we must make them relevant. Let's see...Got it! If I were to give you one hundred dollars, what would you buy from this catalog?
P: Could I have [be given] the money now?
M: Notice the "if," please. Let's pretend, now. How many of these one-dollar items could you buy?

P: One hundred, of course.
M: And how many kilos of chocolate could you buy?
P: Ten kilograms! [The chocolate weighs-in-kilograms the number ten!]
M: And if you bought five of these three-dollar items, how much would it cost [what would be the price]?
P: Fifteen dollars. This would be more interesting if we used real dollars.
M: Agreed! Go get a job [Be employed, please]!
P: Ha-ha. Actually, this is very interesting.
M: That's for sure!

13: At Betty's workplace
D: Hi, Betty! Hey, that's heavy!
B: Thus the lifting equipment. Don't worry. The motor won't fall. But why are you here? Do you want to help me tear (the car) down?

D: No. You said the parts were new. But the ones I can see [the one visible ones] look old.

B: They're old from use, not from age. For instance, the motor is two years old, but [nevertheless] it seems ten years old.
D: So it's hard to say how old the car is. ["The car is how many years old" is a difficult question.]
B: Yes. But I can tell you how old each part is. For example, the chassis is nineteen years old.
D: And how quickly do you drive it?
B: Are you a cop?
D: Of course not. Actually I came here [to you] to let you know that Audrey says two important people will lecture at the school.

B: And who are the important people?

D: They're the Makinos. This name is also new to you, eh? The Makinos are a Japanese couple, and they've written almost all the Japanese Loglan books.

B: When will they lecture?
D: On the seventeenth, I think. That's a Saturday.
B: Pardon me. All this noise! On the whatth?
D: Logslang! I hope you don't talk to Carl like that!
B: Anyway...
D: Anyway, on the seventeenth.
B: At what time?
D: Seven-thirty PM [1950 hours].
B: I'll be sure to come. The Boss isn't master on Saturday.
D: You should invite your boss. Apparently [s]he should find out about Loglan.
B: What? I already know his/her answer. "Never in a million years!" ["On the zeroth day of the zeroth month!"]

14: About Carl and Audrey
D: Hi, Carl. Are you going to attend the Makinos' lecture?
C: I don't know. Actually, just between you and me, I had a quarrel with Audrey. So I'm not comfortable being at her school.
D: And what was the quarrel about?
C: The correct way to teach (Loglan). Hers are sometimes non-Loglandic, even anti-Loglandic.

D: What?
C: She's fond of practicing and typical conversations. As a result, many people speak Loglan around here. But few think in Loglan or experience logic. And logical thought is the basis of Loglan.

D: Non-Carlish (methods) are sometimes right. She teaches logical thought through language-play. And the fact that she founded the Loglan School was motivated by her desire to teach Loglan. Actually, she's taught almost all of the Loglanists around here.

C: But how Loglandic are they? [What's the extent of their being Loglanists?] She strips Loglan of its uniqueness. And Loglan must always be a special language rather than a normal one.

D: "Many are Loglanists, and many are their motives." You remember that, don't you? So it's probably not true that every Loglanist is interested in logic.
C: But they must understand logic if (they are to understand) Loglan.
D: Maybe. But they hope that learning Loglan will cause understanding. I hope everyone understands Loglan and logic. But they will probably learn Loglan before that. And just as you once said, where math is concerned, one usually learns the methods before the reasons and applications.

C: And does Audrey teach the methods? What are you studying now?
D: "No."
C: Give [Say] the normal form of "It is not the case that someone gives everything to no one," please.

D (after mulling it over): "Everyone gives someone everything."
C: Correct! And you even used the quotation marks! I'll be there. And I hope I'll find some other Loglanists over there.

15: Where is Loglandia?
Many people ask me why I am a Loglanist. Of course there are many motives and reasons. For example, Loglan is a scientific instrument. In particular, one of my professors wanted to experiment with Loglan's characteristics and effects. It is also a menas of communication. In particular, I used Loglan on a certain other student, and she is now married to me. So Loglan is important to me. It is something of a [is moderately]
a means for us to earn (money). In particular, we work in Loglan. But when someone asks me about Loglan, my response is different, and always surprises them. Loglan is a meas of travel. In fact, I say that touring Loglandia pleases and interests me.

One person even said, "Loglandia! Where is Loglandia?" And of course he showed me a map [or "some maps"]. "Where is Loglandia? It doesn't exist!" he said.
"How many drives does your computer have?" I asked.
"What? Two floppy (drives) and one hard (drive)."
"But your operating system lists five."
"Two are virtual."
"The word 'virtual' means that they do not physically exist, but they act like a physically existing drive, correct?"
"Yes."
"And Loglandia is a virtual country. Its cities are Loglan groups, and also computer networks. Some people explore it by telephone or modem. And certainly it has distinct dialects and culture. If you doubt that, you must go and see it [explore it by going there]. I'll be happy to go with you. But in conclusion, since Loglanists act like citizens of Loglandia, it obviously is their country, if only virtually."

16: Finally, what is Loglan?
I tried to answer this (question) at the beginning of the book. Your experience with Loglan's features is now enough that you can answer (it yourself). Loglan is indeed different from English. I hope you've become fond of its non-English ways of thinking. Its precision may sometimes be annoying, but the fact that it increases your range of thought will probably reward you enough for its difficulty and effort.

Unfortunately you discovered only a few of the interesting and logical features of Loglan. There are also many language games, cultural aspects, etc. In fact, Loglan is a large conceptual world with a small explored area. (The question) "What is Loglan?" thus has not yet been answered. I hope you will join other Loglanists in responding.

As to the question "Why should I bother?" again I hope you can answer. The characters we met though reading in the sample texts have many different reasons and motives for learning Loglan. For example, Dana enjoys discovering languages and cultures through language: Dana prefers linguistically experiencing logic. Carl probably enjoys Loglan's logic and precision. He also experiences logic through it. Betty is pleased by its creativity. And Sita probably is interested in Loglan art, and her husband in linguistically experiencing Loglan culture and Loglanists. In fact, confidentially, all of the fictional Loglanists here have fun with Loglan.

In short, Loglan may be a means of communication for Loglanists, or for them and computers. Besides, it may be a means of travelling to a virtual country. And it may also be a tool of thought. It's thus a language of "maybe." Thanks to you, I hope, it will become a language of "certainly."

In conclusion, what is Loglan? And why should you bother? In fact, you alone will answer, perhaps according to my replies. Or perhaps not. But the qualities of Loglan and
the motives for learning it will be yours. Judge the language. And [which means] judge yourself.

## Answers

## 3

Lo Kenti

1. What is 1 reading? Lei ridle levi bukcu. (Or le logla bukcu or le dicbukcu)
2. How is 1 reading? Lei tedji ridle.
3. Does $\beta$ (the book) interest 1 ? Ia, beo treci lei.
4. When will the learning group practise? And where? Le cirna grupo [or cei] fa cirduo na lena natli vi le ckela.
5. What/how is the car? Le tcaro ga broda.
6. Will I use the car? What will I use? No. I no, lei plizo le tcaro. I lei plizo le torkrilu.

4

1. Who is Doctor? La Inés Del Ri,os, bi la Kicmu.
2. Who is bothering Dana? La Pal, fatru la Deinys.
3. Are there clouds around the school? (Is it cloudy there?) No. I no, ba na klada vi [le ckela]. (A more elegant answer would be No. I ba vi klada no na. We'll return to such constructions in Lesson 14.)
4. But how was it [before]? Ba pa klada vi lle ckela].

Lo dupma kenti Trick question: Is Inés a doctor? Iu. (She's called "Doctor"; that doesn't make her one.)

## Exercise 5.1

1. What kind of man is this?
2. This is a short young man.
[How could you say this without using ci? I ti corta ge junti mrenu.
What would it mean without without grouping words? This is a shortly-young man.]
3. That one's tall for a young man.
4. That's a book[s]-about-Loglan attentive reader. (One who attentively reads books about Loglan. This is a very convoluted way of saying such a thing; the normal sentence would be Ta tedji ridle lo bukcu je la Loglan, but we won't meet lo until Lesson 8.)

Translate into Loglan:

1. Le fumna ga langa hu?
2. I fei langa le botci.
3. I fei he langa?
4. I fei mutce langa.

Lo Kenti

1. What is a question [that is] better than D's? La Betis, he?
2. What's B's car like? Tei laldo Bai.
3. How does $B$ drive it? Bai kukra krani [tei].
4. Who is wise as a driver? La Adris, krani sadji.

## 6

## Lo Kenti

1. What is [an example of] a logical connective? Liu a, bea, lodji djipua. (This doesn't ask for a definition, but an example. We'll get to definitions in Lesson 15.)
2. What does $K$ prefer? Kai fundi leDaipa retpi.
3. Which must $K$ do, eat or tutor $D$ ? Kai titca, noa cirhea Dai. (Note that noa shuts off titci's second blank, so that Carl isn't eating Dana.)
4. Does [any]one use Loglan in the restaurant? Ia, ba logpli vi le resra. (Don't use Kai, e Dai logpli; it implies that they do so separately. We'll look at the proper connective (Kaize Dai) in Lesson 8.)

7

## Lo Kenti

1. What is Tomás? (Or, what does he do?) Tai fremi ce fatru Kai. Ice Tai surva Dai.
2. Tis related to whom? Tai kunci la Inés Del Ri,os.
3. What is I? Ima sorme, ena socgoi gu Tai. (The gu-construction is called for because e is tensed.)
4. What does $T$ do in the restaurant? Tai tobsua. Ice Tai titci vedma, e kamkytaa.

## Lo Kenti

1. What did K's friend do? Fei pa nakso leKai tcaro.
2. What is an/are some old part(s) of B's car? Le konce, enoilo djipo ga laldo.
3. What is/are important to cars? Le motci ze le brekysio ze le frama ze le tolpaesio ze le lekpaesio ga djipo lo tcaro.
4. What doesn't $\mathbf{D}$ understand? No, Dai siodja lo tcaro.
5. What's easy? Lo kusmo fu takna ga fasru.

## 9

Lo Kenti

1. What was D about to do? Dai durbiesni lepo spodru.
2. Who learns about cars? Kai cirna lo tcaro.
3. Sii ba takna ciha logduo Kai? Sii ba takna noca logduo Kai.
4. And what is that a factor in? Tio io fu ckozu je lopo no, loDai cirna ga fundi Dai.
5. About what and to whom does Betty want to talk? Bai danza lepo takna Kai ze Dai lo, po logcia kenti.

10

## Lo Kenti

1. What justifies K and D learning Loglan? Kai logcia rau lopo Kai rogduo spuro. I Dai dui rau lopo lo lengu ze kulti perti ga treci Dai.
2. B does so despite what? Bai dui norau lopo la Loglan, sii furplicle lo tcanakso.
3. According to the Boss, what makes Loglan useless? Soa lopo no, Lai livspe helba.
4. But, according to K , what is a mechanic's skill which is improved by Loglan? Coi Kai, Lai gudcko lopo vetfa penso.
5. According to D , what is worth learning (good to be learned)? Lo nu hapduo je ba ga kanoi gudcko cenoi zavcko lopu ba pernu ki, po nu cirna je ba gudbi.
6. What is also characteristic of B ? Ke lopo gudmao lo pu spuro, ki lopo cirfundi ga pu meBai.

## Lo Kenti

1. Why is Mrs. Makino the Author? Mai feu kinsri leMai mermeu lomei fomtaa vidre.
2. What doesn't the average Logli do? No, loe logli ga kaidja Iolei kultu ze lengu.
3. What's small? LeuAma logli, e lea logli, e lo junti ga cmalo.
4. What is a partial list? And what is it a list of? Lau lo loglo, lopo kulbatmi gu, lo, po penso nu ckozu je la Loglan, lo loglo fikco, lopo kambi la Loglan, lo notbi lengu, li Hu sitfa la Loglandias? lu, lua parti lista lea fu fomtaa.

12
Lo Kenti

1. What is five times three? (Use the two [forms] written.) Lio fetiate bi lio fepiofepiofe. Inusoa lio fetiate bi lio nefe.
2. How long have the teaching sessions [usually] lasted? (Note the plural and the tense.) Lo konmathe po ditca ga minta lio fofe.
3. But what did $M$ say to $P$ ? Mai pa cutse luelepo lenapo ditca ga ckemerli lio nehei.
4. In what way does $M$ make numbers relevant to $P$ ? Mai kenduo Pai lopo furvea hoba laele nurvembuu lo nema dalri.

13
Lo Kenti

1. What is a hard question? Li le tcaro ga nirne ho lu ga nardu kenti.
2. Why does D go to B? Dai godzi Bai moi lepo djadou Bai lepo la Adris, cutse Iuelepo to djipo fa fomtaa vile ckela.
3. What are the Makinos [like]? La Makinos, ponje merji, e fu bukcu piro lo ponja logla.
4. And who are they? (Think carefully!) La Makinos, bi le djipo.

14
Exercise 14.1
No, ta corta raba < Ta corta no raba.

Exercise 14.2
Ba donsu nobe nobo > Ba donsu rabe rabo
Ba godzi nobe nobo nobu > Raba godzi be rabo bu

## Lo Kenti

1. Does K want to attend the lecture at first? Why? No, ikou Kai pa roirtargo la Adris.
2. According to K , what are A's teaching methods [like]? Lo meAma rina norloglo, a ia logpozfa.
3. Are A's students Logli? Coi Dai, ia. Ibuo coi Kai, no ia.
4. In your opinion, do Logli have to understand logic? [No] Ia. I [no,] lo logli oa ga siodja lo lodji. (Depending on your opinion.)
5. Does A teach the methods? Sii, ia, Ama ditca lo durfoa.

15

## Lo Kenti

1. Why is Makino a Logli? (Please use M's answer.) La Loglan, racrie.
2. Is Loglandia on a map? No. I no, la Loglandias, nu cartu.
3. What is Loglandia? La Loglandias, duodza gunti.
4. And how does one go there? I ba spegoi Lai tie lo telfo ca kotytelfo.

## Glossary

C - consonant
V - vowel
() - optional element, for example, (C) $\mathrm{V}=\mathrm{V}$ or CV
argument The description or name of a person or thing involved in a relation, whether one of a predicate's blanks or a word or word-group which completes the meaning of a PA word.
attitude indicator A class of free modifiers which express your attitude toward an event borrowing A word taken (with minimal changes) from some other language. causal connective A class of words which act like PA words, but also have eeshekked and kekked forms. These words indicate relationships involving physical cause, motivation, justification, and entailment.
compound tense operator A tense inflector with the suffix -pa or -fa to indicate the period before or after the general time referred to by the first inflector.
connectand A word or word-group joined to another by a connective. The connectand to the left of the connective is the left connectand, and the connectand to the right is the right connectand.
connective A class of words which act like conjunctions to link a pair of words, phrases, or clauses, based on how the truth of one affects the truth of the other (one true if the other is true, one true if the other is false, etc.).
conversion Creating a new predicate by shifting the order of blanks in a predicate.
Conversion is only possible if any non-designating variables are of the same type and sign.
descriptor A class of words which create descriptions (arguments) based on predicates.
designating variables A variable which points to a specific individual.
designation The process of pointing to a person or thing with a description or label; also, the description or label so used. (See also desgnatum $/-a$ and identification.) designatum $/-a$ The person or thing pointed to by a description or label: the one designated.
dimension predicate A class of predicate words which refer to a measurable feature (or dimension), such as height, weight, or depth.
dimensioned number A number consisting of at least one regular number word and the abbreviation of a measure word, as 20 kg .
discursive modifier A class of words which relate the present sentence to something which has already been said or implied.
eeshek Inter-sentence connectives.
ek A class of left-grouping connectives which connect predicate expressions or arguments.
existential A non-designating variable which asserts the existence of at least one member of a group.
free modifier A class of words which may be placed practically anywhere in a sentence without greatly altering its basic claim. Unlike PA words, they never take an argument; however, they do modify the word they follow, or the utterance as a whole if placed before it.
identification The process of linking two designations of the person or thing you're talking about.
identity operator A Little Word which links two designations as referring to the same individual.
inflector A class of $P A$ words which indicate where or when something happens.
kek Forethought connectives capable of connecting any two similar syntactic units.
left-grouping Arranging the scope of a group of words beginning from the left so that each word or phrase is affected as a single unit by the word to its right: ( $a b) c$ ).

Little Word A class of words which provide grammatical information; structure (C)V(V) (letter-names of vowels VCV). Little Words may be accented or not, but you must always pause between an accented Little Word and a predicate word. modal operator A class of $P A$ words which act as spare blanks for predicates, indicating relationships common to many predicates.
multiplicative predicate A class of predicate words which indicate a number or fraction of a thing. These predicates are generally used for divisions in the metric system (metro, meter; kilmetro, kilometer; cenmetro, centimeter).
name A label for an individual person or thing, telling what the individual is called, rather than giving a description. Names may be borrowed or derived from a Loglan word. Regular names end in a consonant. All names are followed by a pause in speech or either a comma or period in writing.
non-designating variable A variable which points to any of a number of individuals, as English someone (or other) does.

PA word A class of words which can be placed almost anywhere in a sentence, so long as they don't interrupt an argument or predicate expression. A PA word placed before an argument will absorb it to complete the PA word's meaning; PA words also mark the beginning of a predicate expression.
pause comma A pause in speech (written as a comma) which signals the end of a name or borrowing, or which acts like gu to separate words or phrases.
predicate word A class of words which act as predicates. They contain at least one consonant cluster (two or more consonants placed together, as st, bl, and nd), end in a vowel, and are accented on the next-to-last syllable.
predicate A word or word-group which can express a claim. They are like patterns for complete sentences with blanks for the people/objects referred to.
predication A claim about an event or relationship.
primitive A predicate word which is neither borrowed nor formed by affixation. These have five letters, either CCVCV or CVCCV.
quantification Using ra words to modify an argument, especially a non-designating variable.
quantifier A raword used to modify an argument, especially a non-designating variable. quantifier string A list of quantifiers and their arguments placed at the beginning of the clause in which they occur, and separated from it by goi.
ra word A class of number words which refer to imprecise numbers ("many," "few," etc.). register marker A class of words which indicate how you perceive your relationship (formal, informal, friendly, etc.) to your audience at a given moment.
right-grouping Arranging the scope of a group of words beginning from the right so that each word or phrase is affected as a single unit by the word to its left: (a (bc)).
scope The part of a phrase or clause affected by a word (in modification) or by a quantifier (in quantification).
shek A class of right-grouping connectives which connect arguments, modifiers, or parts of a predicate.
specified descriptions Descriptions in which a predicate's blanks are re-activated by the Little Words je and jue, and filled in by arguments.
universal A non-designating variable which points to all the members of a group. variable A class of words which can be used temporarily to designate a person or thing, based on an earlier or implied designation.

## Loglan-English Vocabulary

Numbers in brackets refer to the lesson where the word first appeared. Little Words discussed in a note have the note number after a slash: a [6/6] is explained in Lesson 6, note 6. ([I] means the word is used only in the Introduction.) The list includes all primitives, whether used in the book or not; a primitive's three-letter djifoa, if any, is listed in parentheses.

Note that this is not a dictionary of Loglan-a complete dictionary is available from the Loglan Institute, Inc.; see page 394.
a [6/6] and/or
ae [2/5] I hope to
ai [2/5] I intend to/that _ (Strong intention indicator)
anoi [6/6] _if _
ao [2/5] I want to
athomi [I] _ is an atom of _
au [2/5] I don't care
ba [1] something $x$ (non-designating variable)
badjo (baj) _ is a bough/limb/branch of
badlo (bad) _ is a bundle/package of/containing
bakso [16] (bao) _is a box
bakto (bak) _ is a bucket/pail of/containing _
balci (bac bai) builds _ from materials _
balko _ is a balcony of building _
balma (bam) _ is a ball/sphere
balpi (bal) _ is balanced under forces
banbe _ is a bay of coast _
banci _bathes in
bande (ban bae) _ is beyond _ from _ on route/path _ by distance _
banko _ is a bank of community _
banse _ is a basket of/containing _
baormao [3] _ is a box-maker
bapra _ operates _ with goal _
baprysio [15] _ is the operating system of computer _
barda [16] _ rewards _ for _ with _
basni [14] (bas) _ is the base/basis of _
batmi [7] (bat) _ trades _for _ with _
batpi (bap) _ is a bottle of/containing _
batra _ is an amount of butter
batsri [11] _ correspond/exchange letters with each other
batyditca [8] _ teach each other subject(s) _
be [1] something y (non-designating variable)
bea [6] for example (free modifier) [from BIEkA look at]
bedpli [9] _ goes to bed
bedpu (bed) _ is a bed
bedyduo [9] _ puts _ to bed
begco (beg beo) _ requests/asks _of/from _
bei [3/5] the lowercase letter b
bekli (bel) _ is a bell producing sound/note _
bekti [I] (bek) _is an object/thing
beldu _ is the belly/abdomen of _
bendu (ben beu) _ is a band/orchestra of players _
beo [3/11] the lowercase Greek letter beta ( $\beta$ )
berci _ is a sheep
berna _ is the brain of _
berti (ber bei) _ carries/bears _ to _from _
betcu (bet) _ is more bent/crooked than _
bi [4/4] _ is also known as/called
bidje (bie) _ is an edge of _ between _
bidzi _ is a bead of _
bie [4/8] _ is also known as/called one of _
bifci (bif) _is a bee
bifte _ is an amount of steak
bilca (bic) _ is a member of the armed forces of _
bilra _ plays billiards with _
bilti [9] (bil bii) _ is more beautiful than _to _
bindo (bio) _ is a bean from _
birju _ is an amount of beer
bisli (bis) _ is an amount of ice
bitce _ is a whip/lash/switch
bitsa (bit bia) _ is between _ and _
bivdu [15] (biv bid biu) _ behaves _under _
blabi (lab) _ is whiter than _
blada (bla) _ is a blade of tool/weapon _
blanu [5] _ is bluer than _
bleka (ble) _ looks at
blemao [15] _ shows [person] _ [thing] _
blicu (bli) _ is possible under conditions _
bloda (blo) hits/strikes _ with _
bloku _is a block of material _
bludi (blu) _ is blood of organism _
blusa _ is a blouse
bo [1] something $z$ (non-designating variable)
bomba _ is a bomb
bongu (bon) _ is a bone of
borku (bor) _ is a bow [for arrows]
botci (boi) _ is a boy
botni _ is a button of _
botsu (bot bou) _ is a boat
brana (bra) _ is born to mother _
brato (rao) _ is the ratio/quotient of _ divided by _
breba (reb) _ is an amount of bread
brecea [I] _ prepares for _
bredi (bre) _is ready/prepared for
breko [8] (rek)_is a brake of vehicle/system
brekysio [8] _ is a brake system of vehicle/system _
briga (rig ria) _ is more brave/courageous than _ under _
briku (rik) _is a brick
brili (ril) _ is more brilliant/bright than _ by _
brito [16] _ is part of British culture
brize (bri) _ is a breeze/wind from direction _
brocu (roc rou) _ is a brush $n$.
broda [3] (rod) _ is broken/inoperative/not working
broko (bro) _breaks/fractures into pieces _ brona (ron) _ is browner than _
bruci _ is a brooch
brudi [3] (bru) _is a brother of _ through parents _
brute (rue) _ breathes _
bu [1] something $h$ (non-designating variable)
bucto (buc) _ is a bush/brush of
bufbalci [13] _ "tears down" vehicle _ (auto mechanics term)
bufpo [14] (buf)_ is opposite from _in quality _
bufsensi [14] _ is superstitious/opposite in quality from science in feature _
bukcu [1] (buk buu) _ is a book about _ by author _
buksatci [I] _ is a/the introduction of book _
bulbi (bul bui) _ is a bulbous root of plant/species
bulju (buj) _ boils at temperature _
bunbo [8] (bun buo) _ is a fool/is foolish about
buo [3] however, in contrast to what has been said (free modifier)
buste (bus bue) _ steps on/in _
butpa _ is a boot
cabro (cab cao) _ burns at temperature _
cadre [11] _ is a dress
camle _ is a camel
canli (cna cai) _ is a quantity/amount of _ on scale _
capmai [15] _ is a computer[ized] printer in system _
capri (cap) _ prints _ on _
caprie [15] _ is a die or stamp for making an imprint of _ on _
capypae [15] _ is an old-fashioned printing press with movable type
carbo (car) _ is an amount of carbon C
cartu [15] (cat) _is a map of _ made by _
caslo (cas) _ is a whistle
cavle (cav) _ is a shovel
cedzu (ced) _ is shade/shadow made by _ from light source _
cefli (cef) _ is a chief/boss/head of _ for activity _
celhu (cel) _ is a cell of organism _
celna _ is a shelf of/containing _
cenja (cej cea) _ becomes _from _
centi [12] (cen) _is a hundredth of _
cersi (cer cei) _ is a chair
certa _ is a cherry from _
cesni _ is a chestnut from _
cetlo (cet ceo) _ is wet/moist with
ci [5/2] hyphen
cibra _ is a bridge over/across _
cidja (cid) is awake
ciktu (cik ciu) equals _in/on dimension
cilble [11] _ investigates _, looking for _
cilda _ is an island in sea _
cildrecni [16] _ is precise/exacting for _ in area _
cimra [11] (cim) _ is the summer of year _
cinta (cin) _ is an infant/baby of _
cirdui [16] _ discovers _ by learning about it from _
cirduo [3] _ practices _
cirfundi [10] _enjoys/is fond of learning _
cirhea [6] _ tutors _ in subject
cirkii [11] _ is a fellow learner with _in subject _ cirmoi [16] _ is a motive for _ to learn _
cirna [1] (cir cia) _ learns subject _from source _ cirpai [13] _ is a lesson in course/subject
cirzo (cio) _ are shears/scissors citlu (cil) _ is a detail/particular of _ citre (cit cie) _ is a thread/filament of substance _ ckaciu [5] _ is as kind to _ as _ is to _ ckafe _ is a cafe of community ckamou [5] _ is kinder to _than _is to _ ckano [3] (cka) _ is kind to _ ckela [3] (kea) _ is a school of community _ ckemerli [12] _ lasts length of time ckemo (cke keo) _ is a time/interval from _ to _ ckozu [3] (cko) _ causes _ under circumstances _ clado (cla) _ is louder than _ by _ clafo [11] _laughs at [person/thing] _
clesi [3] (cle) _ is without/less _ clidu _ slides/slips on _ clife (lif) _ is a leaf of plant _ clika [5] (cli) _ is like/similar to _ in feature _ clina (lin lia) _ is a straight line through points _ clivi (liv lii) _ is live/alive/living cloro (clo) _ is an amount of chlorine Cl cluva (clu) _ loves _
cmaciu [11] _ is as small as _ is
cmalo (cma) _ is smaller than _ by _
cmavizpae [10] _ is a microscope
cmehea [16] _ underwrites/subsidizes _ in undertaking _ with amount _
cmeni [10] (cme) _ is an amount of money issued by _
cmiza [16] (cmi) _ is amused by
cnida (cni) _ needs/requires _for _
cninu (cnu) _ is new/unfamiliar to _in feature _
coi [10] according to _(PA)
colku (col) _ is silk from _
comtu [11] (com cot cou) _ is ashamed of doing/being _
condi (con) deeper than _ by
corta [5] (cor coa) _ is shorter than _ by amount _
cpula (cpu) _ pulls/draws _ to _ from _
crano (cra) _ smiles/grins at _
crina [4] (cri) _ is rained on by
cteki (cte) _ is a tax/tariff on _ paid by _to _
ctifu (cti) _ is stuff/matter/material
ctuda (ctu) _ is/are feces/stool of _
cundo (cun cuo) _ is a window of _
cupro (cup) _ is an amount of copper Cu
curca (cur) _ is secure/safe from
curta _ is a shirt; upper-body garment
cutci (cuc) _ is a shoe
cutri (cut cui) __ is an amount/expanse of water
cutse [2] (cus cue) _ says _ to _
da [11/7] X (argument): he, she, it, they
Dai [12/11] dollar [dalra] (abbreviation)
dakli (dak) _ is more likely/probable than _ under _
dalra [12] _ is worth _ dollars (default 1)
damlogla [13] _ is an instance of "low"/slang Loglan (Logslang)
damni (dam) _ is lower than _ by _ in gravity field _
dampa _ pumps fluid _ from _into _
danci [I] (dan dai) _ is a plan for doing _ designed by
danpeo [11] _ composes/outlines
danri _ is more ordinary than _in _
danse _ dances to _
dante (dat) _ is a tooth of _
danza [9] (daz daa) _ wants _ for purpose
dapli (dap) _ answers/replies _ to questioner _
darli [3] (dar) _ is farther from _ than _ is by distance _
darto (dao) _ is a door of/in _
daspa (das) _ is responsible for _to _
de [11/7] Y (argument): he, she, it, they
decti [12] (dec) _ is a tenth of
dedjo (ded dej) finger/digit of
dei [12/11] day [denli] (abbreviation)
dekto [12] (dek) _ is tenfold of _
denli (del dei) daytime of day _
denro (den) dangerous to _under
dertu (der deu) dirt/soil/earth from/of
detra [4] (det dea) _ is a daughter of _
di [11/7] Z (argument): he, she, it, they
dicbukcu [3] _ is a textbook about subject _ by _
dicfoa [14]_ is a teaching method of _ in class _
dichea [11] _is a teacher's aide for teacher _ in subject/class _
die [11/1] intimacy register marker (<dipri)
dilko _ is more delicate than
dilri (dil) _ represents _ in matter _
dipri (dip) _ is dear/precious to _
dirco (dir dio) _ is in direction _ from _
dirlu [3] (dru) _loses/misplaces _
disfiu [6] _ is indecisive/can't decide what to do about _
dislu (diu) _ discusses _ with _
disri [11] (dis dii) _ decides to [do] _ about _
ditca [1] (dic dia) _teaches subject _to _
ditka (dit) _ bites _on/at _
djacea [13] _ learns/becomes knowledgeable about _ from _
djano [8] (dja) _ knows _ about _
djela (dje jel) _ is healthier than _
djesi _ digests _
djeta (jet) _ owes _to for _
djine (dji) _ is joined/connected to _ at
djipo [8] (jip jio) _ is important to _for _
djipua [6] _ is a connective/conjunction of language _
djitu (jit jiu) _ is tight on _
djori (djo) _ is a member/element of set/group _
djoso (jos) _ sews/stitches _ to _
djoto _is a toe of
djudi [16] (dju) _judges _ to be _
djula (jul) jewel in/of jeweled object
djupo (jup juo) support/maintain _ with/by _
do [11/7] H (argument): he, she, it, they
donhea [16] _donates to _ gift _ for cause _
donsu (don dou) _ gives _ gift _
dorja (dor) _ is at war with _ over _
dotca _ is a part of the German language
dotci _ is a German person
dotco _ is a part of German culture
dotra (dot) _ is the winter of year _
draka (rak) _ is darker than _by _
drani (dra) _ is drier than _by _
drara _ is a drawer of/containing _
dreti [5] (dre) _ is correct by standard _
drida _ is a drop of liquid
dridja [14]_ is familiar/acquainted with
driki (dri) remembers/recalls _ about _
du [11/7] Q (argument): he, she, it, they
dugri unit/degree of/on scale _
duo [12] in manner/by method _ (PA)
duodja [8] _ knows how to [do] _
duodza [15] _ is virtual in function _ in system/conditions _
dupma (dup) _ dupes/deceives/tricks _ about _by _
durbiesni [9] _ is about to [do] _
durcli [15] _ acts like _ in action _
durfoa [14] _ is a method of doing _ under conditions _
durna (dun dua) _ is an adornment on
durtoi [11] _ agrees/promises to [do] _ to/for _
durzo [1] (dur duo) _does _to
dustu (dus) _ is a quantity of dust
dutci [15] (dut) _ doubts that _ is true
duvcia [16] _learns [about]_ by exploration
duvri (duv dui) _discovers _ about _
dzabi [11] (dza) _ exists for _ under conditions _
dzaso (zas) an amount of soap
dzeli (dze) an amount of jelly
dzoru [9] (dzo) _ walks to _from _ via _
e [6/6] _ and
ea [2/4] Let's/I suggest that we _
ei [1] is it the case that _ .?
enoi [6/6] _, but not _
eo $[2 / 2,3]$ please
eu [12] suppose that (free modifier; sign of a contrary-to-fact supposition)
fa [1] will, shall, after, later
fafa [11/6] will be about to (compound inflector)
fagro (fag) _ is a fire in/of _
falba (fab faa) _ fails to do/be _under _
falji (fal fai) _ is false by standard _
famji [4] (fam) _ is a family with members _
famva famous for _ among _
fando (fad fao) end/conclusion/termination of thing/process
fangoi [8] _ returns to _from _
fanra (far) _ is a farm of community _
fanve (fan) _ is the reverse of _/in - order from _
fapa [11/6] will have [done] (compound inflector)
farfu [5] (fra) _ is a [the] father of _through mother _
farka _ arches over
fasli _ is the face of _
fasru [8] (fas) _ is easy for _ under conditions _
fatcou [11] _ is sorry to bother _ by doing; soi fatcou excuse me
fatru [4] (fat fau) _troubles/annoys _ by [doing] _
fe [12] five
fekto (fek feo) _ is a fact/observation about _ observed by _
felda (fel fed fea) _ falls to _ from _ in gravity field _'fell'
femdi (fem) _ is a female of species _
feodja [8] _ knows _ from source _
ferci (fec fei) _ is an affair/matter involving _
ferdei [13] _ is a/the friday/fifth day of week/month _
fermei [13] _ is a/the may/fifth month of year _
ferno (fen) _is an amount of iron Fe
ferti (fet) _ is more fertile than _for _
festi (fes) _ is waste/trash from process _
feu [3] in fact, indeed, actually (free modifier)
fibru (fib fiu) _ is more feeble/weak than _ by _
ficli (fic) _ is a fish
ficyjanto [I] _ fishes for _
fie [11/1] friendship register marker (<fremi)
fikco (fik) _ is a work of fiction by
fildi (fii) _ is a field of farm/community _
filmo (fil fio) _feels _ about _
fircko [11]_ [unintentionally] frightens _by _
firpa [8] (fir fia) _ is afraid of/that _
fitpi (fit fip) _ is a foot of
fizdi [15] (fiz fid) _ is physical/concrete (not abstract)
fo [12] four
flaci __ is a flag/banner of _
flaki _ is a fly
flami (fla) _ is a flame of fire/device _
flati _ inflates _ with _ to dimension _
fieti (fie) _ flies to _from _ via _
flidu (fii) _ is a liquid from temp _to _
flofu _ floats on/in
flora (lor loa) _ is a flower/blossom/bloom of plant
fluro (flu) _ is an amount of fluorine $F$
foldi (fod) _ is a fold in
folma [5] (flo) _ is fuller than _by_
fomtaa [11] _ lectures _on/about _
fordei [13] _ is a/the thursday/fourth day of week/month
fordi _ is a floor of _
forka _ is a fork
forli (fol) _ is stronger than _ by _
forma (fom foa) _ is the form/shape/outline of

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formei [13] _ is a/the april/fourth month of year _
fosli (fos foi) _ compels _ to do/be _
fotpa _ is more fat/plump/stout than
fragu (rag) _ is foggy
fraki _ is worth _ francs; default l
frama (ram) _ is a frame of/around _
frasa _ is a part of the French language
frasi _ is a French person
fraso _ is a part of French culture
frelo [7] _ is crazy/insane
fremi [5] (rem) _ is a friend of _
frena (fre) _ is in front/ahead of _
frese _ is fresher than _
frezi (rez) _ is free to do/be _
fruta (fru) _ is a fruit of _
fu [2/13] [switches first and third blanks]
fulri _ is richer than _ in _
fumna [1] (fum fua) _ is a woman
fundi [6] _ is more fond of _ than of
fundycea [16] _ grows fond of _
furplicle [10] _ is useless for purpose _ to user _
furvea [6] _ buys _from _ for price _
furvemcue [6] _ orders _ from _ at price _
fusto (fus) _ is an office of _
futbo _ plays football with _
futci (fut fuc fui) _ is later than/after _
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$\mathrm{ga}_{1}$ [3/7] [indicates that the predicate is about to begin]
$\mathrm{ga}_{\mathbf{2}}$ [16/8] [announces a postponed subject (before the predicate) and marks the subject
itself (after the predicate and before the argument)]
gancu (gac gau) _ wins/gains _from/over _
gandi (gad) _ is a god/diety of people(s) _
gandia [11]_ is a professor of subject _ at institution _
ganli (gal) _ organizes _ into _ for task/function _
ganta (gan gaa) _ is higher than _ by _in gravity field _
gardi _ is a garden of family/community _
garni (gar gai) _ governs _/rules over _
garti (gat) _ is grateful/thankful to _for _
gasno (gas gao) _ is an anus of
gasti _ is a quantity of/made of steel
gatcue [11]_thanks _for _
ge [5/6] for a _; type [of] _(grouping operator)
gea [9] again; 1 repeat (free modifier)
gei [12/11] gram [gramo] (abbreviation)
genble [12] _ looks again at _
gencue [2] _ repeats _/says _ over to _
genza (gen gea) _ is a recurrence of
gesbeo [11] _invites _ to be a guest at/for
gesko [11] _ is a guest of _ at
getsi (get gei) _ gets/obtains/procures _ from _for _
getsui [8] _transmits/relays _to _from _
gi [16/9] [marks the (righthand) end of a string of fronted arguments]
gigdo [12] (gig) _ is a billionfold of
gimna _ is a gymnast at feat
ginru (gin giu) _ is a root of plant _
gleca [2] _ is a part/example of the English language
gleci _ is an English person
gleco _ is a part of English culture
glida (gli) _guides/leads _ to _from _ via _
gliso _ is made of glass
gluva _ is a glove
go [5/7] which/that is _(inversion operator)
godru _is a drain of _into _
godzi [1] (god goz goi) _ goes to _ from _ over route _
goi [15] [marks right end of a quantifier string]
gokru (gok) _ is a hook/crook
goltu _ is the throat/gullet of
gomni (gom) _ adheres/sticks to _
gotca (goa) _ is a goat
gotri (got) _ is an industry for producing _ among _
gozkii [15] _ goes with _ to _ from _ via _
grada (gra) _ is grander than _in
gramo _ weighs _grams; default 1
grasa (ras raa) _ is a blade/expanse of grass
grato _ is a cake
gresa (gre) _ is an amount of grease/fat/oil
grisi _ is greyer than _
gritu [5] (gri) _ sings _to _
grocea [11] _ grows/becomes big[ger]
groci [4] (roi) _ is angry/grouchy with _ about _
grocycea [5] _ becomes angry at _
groda (gro) _ is bigger than _ by _
grujmi [11][group] _ meets at
grunu (run) _ is grain/cereal from source _
grupa [3] (gru) _ is a group made up of members _
gu [2/11], (spoken comma)
gubduo [9] _ does good deed _ to _
gudbi [2] (gud gub) _ is better than _for/in _
gudbiu [9] _ is [naturally] well-behaved
gudcae [11] [circumstance] _ is luckier than _for _
gudcea [10] _ improves
gudcko [10] _improves _unintentionally/naturally
gudkao [9] _ is [intentionally] well-behaved for purpose _
gudmao [10] _improves _intentionally by [doing] _
gunti [11] (gun gui) _ is a country of people _
gusto (gus gut guo) _ is the taste/flavor of _
gutra (gur) _ is strange/odd to _ in features _
guypli [I] _uses gu instead of pauses. (A variant of meliugu [logli].)
ha [6/6] how-connected-to (interrogative connective)
hanco (han) _is a hand of _
hapci [4] (hap hai) _ is happy about _
hapsocli [11] _ parties with _ about/for _
hardu (had) _ is more hard/firm/resistant than _
harko (har hao) _ harbors/shelters _ from _
harmo (ham) _ seems harmonious with _ to _
hasfa [3] (has haf haa) _ is a house
hatro [11] (hat) _is hotter than _by _
he [1] is/does what?
hea [10] with the help of _(PA)
Heahu? [10] With what help? You and whose army? (free modifier)
hedto (hed) _ is a head of _
hei [12/11] hour [horto] (abbreviation)
hekto [12] (hek) _is a hundredfold of _
helba [4] (hel hea) _ helps _ to [do] _
henji _ is a chicken/hen
herba (heb) _ is a plant
herfa (her) _ is a hair of
hidro (hid) _ is an amount of hydrogen
hijkinbeo [13] _ invites _ to go with him/her to _
hijra [8] (hij hia) _ is present at _
hinda _ is a part of the Hindi language
hindi [11] _ is a Hindu/native of India
hindo _ is a part of Indian culture
hirtakrie [15]_ is a tool of communication used by _ under conditions _
hirti [13] (hir) _ hears _ over background noise _
hisri (his) _ is a history of _by _
hitli _ is a butterfly
ho $[12 / 5,6]$ how many _? (number word)
hoi [4/2] O/hey (A word used in calling someone by name.)
holdu (hol hou) _ is a hole/pit/depression in _
hompi (hom hoi) _ drinks _ from _
hona [12/7] how many times?
horma (hor hoa) _ is a horse
horno (hon) _is a horn of _
hornyhoa [11] _ is a unicorn
horto [12] (hot hoo) _ lasts _ hours (default 1)
hospi (hos) _ is a hospital of community
hotle _ is a hotel/inn of community _
hozda _ is a hose/stocking/sock
hu [3] what? (interrogative argument)
hue [11/16] said _. (Tells who said the preceding sentence(s).)
humni [1] (hum hun) _is human/a human being
hutri (hut hui) _ destroys/ruins _
I [3] And (begins a follow-up sentence)
ia $[1 ; 2 / 5$ ] certainly [it's true that _ .]
ie [4/3] Which _? Who? What is another name for _?
ii [2/5] perhaps
io [2/5] probably
isi [12/11] inch [inca] (abbreviation)
iu [2/5] Who knows?
ja [16/2] [predicating link (acts as first argument of secondary/incidental claim)]
jae [16/4] [predicating membership link (introduces a secondary/incidental claim)]
jaglo (jag jao) _ is an angle at _between points _
jalti (jai) _ is the product of _ multiplied by
janro (jar) _ is narrower than _ by _
janto (jan) _ hunts game/quarry _
jao [16/6] [predicating link (introduces a secondary/incidental claim)]
je [5/3] first link of predicate
ji [16/1] [identifying link (acts as first argument of secondary/incidental identification)] jie [16/3] [identifying membership link (introduces a secondary/incidental identification)] jio [16/5] [identifying link (introduces a secondary/incidental identification)]
jmihai [4] _ are glad to meet (each other); Ea mu jmihai! (an expression used when being introduced to someone, like English Pleased to meet you!)
jmite [4] (jmi) _ meets _ at _
jokla [12] (jok jol) _is a clock
jolkeo [12/16] _ is the clocktime from/beginning at _to/ending at _
ju [2/13] [switches first and fourth blanks]
jue [5/3] sutori (at least second) link of predicate
jugra (jug jua) grabs/seizes _ with _
junga _ is a part of the Chinese language
jungi _ is a Chinese person
jungo [6] _ is part of Chinese culture
junti [5] (jun) _ younger/physically newer than _ by _
jupni (jui) _ opines/thinks _ about _
jurna _ earns/gains _ for work/service _
jurnyrie [15] _ is a means of earning ("gainful employment") for _ under conditions _
kabni _ is a cabin/hut of
kabre _ is a cabaret/night-club of community
kadta _ is a tile
kae [11/1] politeness register marker (<ckano)
kafso _ coughs up/out
kaidja [11] _ recognizes/knows quality _in _
kakto (kak kao) _ does act _ with goal

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kalra _ is a collar of garment _
kambi [11] _ compares _ to/with _ in feature
kamda (kad) _ fights/struggles with _ over _
kamki _ is funny to _ in _
kamkytaa [7] _ jokes with _ about _
kamla (kam kaa) _ comes from _ to _ via _
kampo _ is a camp of _ at _
kamra (kar) _ is a camera
kamti _ is a committee of _ with task _
kance [9] (kac kae) _ is conscious/aware of/that 
kangu (kau) _ is a dog
kanla _ is a canal between points _ via _
kanmo [13] (kan) _ is able to [do] _ under conditions _
kanpi _ competes with _ in/over _
kanra _ is a cane/rod/staff
kanti _ is a account/bill/check for _ to _ by _
kapli (kal) _ is complete/finished/done by standard _
kapma _ is a cap/hat
kapni (kap) _ is open
kapta _ is a captain of _
karci _ is the heart of
karda [11] _ is a card
karku _ is a crack/fissure in
karsa (kas) _ is across _ from _
karti _ is a cart/carriage/wagon
kasfa (kaf) _ punishes _ for _ by doing _
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kasni _ is a cow/cattle
katca _ watches/observes _ do _
katli (kat kai) _ has quality/feature/property _
katma _ is a cat
katna _ is cotton from source _
kecri (kec kei) _ is sad/sorry about _
kekti _ kicks
kemdi (kem) _ is a pure instance of chemical _
kenduo [8] _ asks/questions _ about
kenti [5] (ken) _ is a question about _ posed by _ to _
kerju [2] (kej keu) _ takes care of _
kerti (ker) _ is a quantity of air
ketli (ket) _ is a kettle of/containing _
ketpi [16] (kep) _ is a ticket to _ from _ on _ for price _
kia [8] [erase preceding word or pause]
kicmu [4] (kic kiu) _ is a doctor treating _ for _ with _
kilgramo [12/8] _measures/weighs _ kilograms
kilto [12] (kil) _ is a thousandfold of _
kinci [6] (kin kii) _ accompanies _ in doing _
kincia [11] _ is an apprentice/disciple of teacher _ in subject
kinku (kik) _ is more keen/sharp than _
kinsri [11] _follows _ to chronicle
kio [8] [forget about the current utterance as a whole]
kitsa _ copulates with _
klabu (kla) _ is an amount of cloth/fabric/textile
klada [4] _ is a cloud in airmass _
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kladydru [4] _ clears up, becomes unclouded
kladyflo [4] _ is cloudy/full of clouds
kleda _ is colder than _ by _
kledja [8] _ knows what _is (what class it belongs to)
kesi [I] (kle) _ is a class of _ distinguished by feature _
klimao [I] _ explains _ to _
klini _ is cleaner than _
klipu (lip) _ keeps/holds/retains _
kliri [8] (kli) _ is clearer than _
klogu (klo) _ is closed as of a container/door
kokfa (kok) _cooks _for _
kolhe _ is a cabbage from source _
kolme _ is an amount of coal
kolro (kol koo) _ is a color to _/perceived by _
komcu _is a comb
komfu [14] (kof kou) _ is comfortable in/about
kompi (kom) _ is a company/firm/business chartered by _ for activity _
komta (kot) _ is a computer
konbi _ is the vagina/vulva of
konce [8] _ is a/the shell [chassis] of _
konmathe [12] _ is arithmetic for deriving _ from _
konsu (kos) _ is a consul of _in _
konsysia [7] _ is a consulate of _in country _
konte (kon) _ is the count/number in set _
kopca (kop) _ is a copy/facsimile of _
kopmai [15] _is a copying machine
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kopypae [15]_ is a pantograph, a mechanism for tracing pictures
korce (koc koe) _ is an amount of cord/rope/string
korji (koj koi) _ orders/commands _to do _
korka _ is cork from source _
korti (kor) _ is the body of _
korva (kov koa) _ is a curve through points _
kosta _ is a coat/jacket
kotytelfo [15] _ is a modem in system _
kou [10/1] physically caused by _; because of _
koucko [11] _ happens to make _ comfortable in/about _
kraco _ smashes/crushes _ into pulp _
kraju (raj) _ scratches _
kraku [7] (kra) _ cries/calls out
krani [5] _ drives _to _from _
kredi _ has credit in amount _ with _
kreni (kre) _ is a ray/beam/radiation from source _
krido (kri) _ believes _ about _
krilu _ is a wheel of device/vehicle
krima _ is a cream from source
krinu _ is a nut/kernel of plant
kroli (kro) _ is a flow/current from _to _
kruli _ is cruel to _
kruma (kru) _ is a room/chamber of/in _
kua [12/14] divided by _
kubra (kub) broader/wider than _ by
kukra [3] (kuk) _ is faster than _ by amount _
kulbatmi [11] _ exchanges culture with _
kultu [7] (kul) _is the culture of people _
kumtu [8] (kum kuu) _ is common to/shared by members of set
kunci [7] (kuc kui) _ is related to _ by relation _
kupta (kup) _ is a cup/glass/vessel of/containing _
kurfa (kur) _is a square with vertices _
kurma _is a worm
kurni (kun) _ warns/cautions _of/about danger _
kurti _ is a curtain/drape of/across aperture
kusmo [8] (kus kuo) _is a custom/habit of _ under conditions _
kuspo _ spreads/expands over/into _
kusti _ is more costly than _ for _
kutla (klu) _cuts _into pieces
kutra (kut) _ is more bitter than _ to _
kuvga (kuv kua) _ is a cover of/on
kuvla _ is a cave/cavity/cavern in _
la [4/1] the one I mean called _
laa [11/13] the one person or thing uniquely describable as actually
ladzo _ is a louse
lae [11/4] the one with/characterized by _
lakse (lak) _ is wax from source _
lalcue [13] _tells/gives the age of _ to _
laldo [3] (lal lao) _ is older than _ by amount _
landi (lan lai) _is a parcel/expanse of land
langa [5] (lag laa) _ is longer/taller than _ by amount _
larte (lar lae) _ is the art of creating/adorning _ among _
lartygra [16] _ is a classic in field/genre _ among _
lasti (las) _ is more elastic/stretchy than _
latci (lat) _ is lighter than _ by _ in gravity field _
lau [11/12] the set composed of members _
le $[3 / 2]$ the one I mean which seems to _
lea [11/11] the class of all things that appear to [be] _
ledri (led) __ is lightning from _ to _
ledzo (lez) _ is the left[-hand side] of _
lee $[11 / 13$ ] any person or thing that actually [predicate]
lefa [3/8] the future/upcoming _
lei [3/5] the lowercase letter 1 ; [12/11] liter [litro] (abbreviation)
lekpaesio [8] _ is a/the electrical system of _
leipi (lel lep) _ is level/horizontal in gravity field _
lenbatmi [I] _translates material _from language _to language _
lenfoa [15]_ is a dialect of language _ used by _
lengu [10] (len leu) _ is a language of people _
lenki (lek) _is an electric charge on _
lenkou [11] _ is comfortable with/fluent in language _
lenkoumro [11] _ is more comfortable with/fluent in language _than is in _
lenpli [14] _uses language _ in situation _
lenspe [16] _ experiences _through language _
lenzo (leo) _ is a lens of optical system _
lepa [3/8] the former (ex-) _
lerbatmi [11]_ corresponds with _
lerci (ler) _ is a letter to _ from _ about _
lesta (les) _ is the east[ern part] of
letci (let lei) _ lets/permits _ do _under _
letra [I] (lea) _ is a letter of alphabet
leu [11/12] the set of things that appear to [be] _
leudja [8] _ knows [language] _
levi [3/8] this ("the-here") _
li [3/12] " (Left quotation mark.)
lia [10/10] like/in the manner of _ (modal operator/PA)
lidji (lid) _ is a religion of people(s) _
likro (lio) _ is an amount of liquor; distilled spirits
likta (lik) _ is a week of month/year _
lilfa (lii) _ is a law against _ by _ under _ among people _
limji (lim lij) _ is a limit/boundary of _
linbu _ is linen from source _
linco (lic) _ is more lean/thin/slender than _ by _
lio [12/9] the number _ (descriptor)
lista [11] (lis) _ is a list of set _ in order _
listyduo [15] _ lists elements _ of list _
litla (lit) _ is light from source _ on surface _
litnu (liu) _ restrains/prevents _ from doing _
liu $[6 ; 9 / 12]$ the [Loglan] word _ (a combination of li and lu)
livsensi [10] _ is a fact about biology
livspe [10] _ experiences/spends life; "lives" (as in Ta po hapci livspe! That's living!)
lo [8] the one I mean that appears to be an instance of the mass of all
loa [3] goodbye
lodhea [16] _ encourages/promotes [the use of] logic in _ by _
lodji [6] (lod) _ is logic for concluding _ from _
lodpeo [14] _ thinks logically about _
loe [11/10] the theoretical average member of the class/set of things that appear to [be] _
logcirna [3] _ learns Loglan from
logdia [14] _teaches Loglan to _
logduo [9] _ uses Loglan on _
logjunti [4] _ is a beginning Loglanist
logla [2] (log) _ is a part/example of the Loglan language
logle [7] _ is an area frequented/claimed by Loglanists
logli [3] _ is a Loglander/knows Loglan
loglo [7] _ is a part/feature of Loglan culture
logmao [2] _Loglanizes _; _translates _into Loglan
logpli [4] _uses Loglan in/by doing _
logpozfa [14] _ is anti-Loglandic, contrary to the spirit of Loglan, in feature _
loi [4] hello
lokti (loi) _ is local to _/confined to _
Iu [3/12] " (Right quotation mark.)
lua [11/12] [closes lau set]
Iue [ $11 / 8$ ] the sign/symbol of _; the meaning of _
lufta [13] _ lifs _ to _ from _ in gravity-field
Iunli (lul) _ is wool from source _
lunra (lun) _ is lunar/pertains to Earth's moon
lusta (lus) _ is west of /a -ern part of _
-ma [12] -hundred
madji (maj) _ does magic before
madzo [1] (mad maz mao) _makes _from material(s) _
magne (mag) _ is a magnet[ic]
makri _ is worth _ marks; default 1
maksi (mas) _ is the maximum/maximal value of function _
malbi (mal) _ is sick/ill with _ from vector _
malna (man) _ is milk from source _
mande _ manages function _in _
manko (mak) _ is a/the mouth of _
manti _ is an ant of hill/colony _
marka (mra mar) _ is a mark on _ distinguishing it from _
marli _ is _ miles long; default 1
marpi _ is a snake/serpent
marte (mae) _ is a market/mart of community
matci (mac mai) _ is a machine for use/function
mathe [14] _ is a mathematical procedure for deriving _ from _ (or for relating _ to _)
matma [4] (mat mam maa) _ is [a] mother of _ with father _
me [5/8] predifier; turns the following argument into a predicate
megdo [12] (meg) _ is a millionfold of _
mei [12/11] meter [metro] (abbreviation)
meksi [7] _ is a Mexican [person]
mekso [6] _ is part of Mexican culture
meksymerki [7] _ is a Mexican-American
mekykiu [1] _ is an eye-doctor/ophthalmolgist
melhatro [12] _ measures _ degrees hot/in temperature
melkukra [13] _ has a measured speed of _
melno _ is a melon from source _
meltidjo [12/10] _weighs/measures-in-heaviness _in gravity-field _
melylanga [12] _ measures _ long
mendi (men) _ is a male of species _
menki (mek) _ is an eye of
mensa (mea) _ is a month of year _
meo [12/11] minute [minta] (abbreviation)
merji [13] (mer) _ is married to
merka _ is part of the American language/dialect
merki _ is an American person
merko _ is part of the American culture
merli (mel mei) _ measures _ to be _ on scale _
mermeu [11] _ is a husband of _
metca _ is a match; incendiary device
metli (met) _ is [made of] metal
metro (meo) _ is _meters long; default l
mi [1] I/me
mia [11/15] mize da ( $X$ and I): we (distinct from mu we [you and $I$ )
midju (mid mij) _ is at/in the center of _
midnai [12] _ is the midnight of day _
mie [11/15] mi ze de ( $Y$ and $I$ ): we (distinct from mu we [you and $I$ ])
mii [11/15] mize di ( $Z$ and II): we (distinct from mu we [you and $\Pi$ ])
miksa (mis) _ is a mixture of ingredients
mikti [12] (mik) _ is a millionth of _
mildo _ is mild/gentle to/with
milfa [6] (mia) _ is a meal of food(s) _
milti [12] (mil) _ is a thousandth of _
minku (miu) _ is a mineral/ore from source
minmi (mim) _ is the minimum/minimal value of function _
minta [12] _ lasts _ minutes (default 1)
mio [11/15] mize do ( $H$ and $I$ ): we (distinct from mu we [you and I])
mipli [I] (mip mii) _ is an example of
mirdo [12] (mir) _ is a ten-thousandfold of _
misme _ is corn from source _
mitro (mit mio) _ is meat/flesh from source _
miu [11/15] mi ze du ( $Q$ and $I$ ): we (distinct from mu we [you and $\Pi$ ])
-mo [I2] -thousand
modvi [14] (mov moi) _ is a motive for _ to do _ under conditions _
moi [10/7] motivated by _; because of _
molci _ is a mill of community _
moiro (mol) _ is softer/more malleable than _
monca (mon moa) _ is a mountain/hill/prominence of landmass _
monza [3] (moz) _ is the morning of day
mordu (mro mou) _ exceeds _ in property _ by _
morto (nor moo) _ is dead
motci [8] (moc) _is a/the motor of device _
mou [10] in addition to _(PA) [Do not confuse this with connective+mou more than]
mrenu [1] (mre meu) _is a man, an adult male human being
mroza (roz) _ is a hammer
mu [1] you and $I / m e$ (a mixture of $m i$ and $t u$ )
mua [11/15] we (you and $X$ and $I=$ mi ze tu ze da)
mubre (mub) _ is wood/lumber from source _

mui [ $11 / 15$ ] we (you and $Z$ and $I=m i z e ~ t u z e ~ d i$ )
munce (mun) _ is a community of individuals/organisms _
muo [11/15] we (you and $H$ and $\mathrm{l}=$ mize tu ze do)
murki (muk) _is a monkey
mursi (mur) _ is a sea/ocean of planet
muslo (mus) _ is a muscle of _
mutce [3] (mut muc mue) _ is more extreme than _ in _
muu [11/15] we (you and $Q$ and $I=$ mize tu ze du)
muvdo (muv mud muo) _ moves to _ from _ over path _
muzgi (muz mui) _ is music by composer _
na [1] now
na la Nirin, je la Nirmei [13] never in a million years
nable (nab) _ is a problem to _ in doing task _
nadro (nad) _ is an amount of sodium Na
nadzo (naz nao) _ is concurrent/simultaneous with _; default now
nafa [11/6] is about to (compound inflector)
nahu [3/4] at what time? when?
najda (naj) _ is a knife
nakso [3] _ fixes _for use/user _by _
naldi (nal) _ is a nail
namci [7] (nam) _ is a name of _tolused by _
nanda _ is a knot in/between _
nanti [12] (nan) _ is a billionth of
nao [5] [discursive modifier announcing a new topic/paragraph] (free modifier)
napa [11/6] have [done] (compound inflector)
nardu [8] (nan) _ is hard/difficult for _ under conditions _
narmi _ is an army of _
narti _ is apart/separate from
natli [3] (nat nai) _ is the night-time of day
natra (nar naa) _ is natural; not caused by man
nazbi _ is the nose of _
nazi [12] at the very moment that _; simultaneously
ne [12] one
nea [13] negative _ (of negative numbers)
nedpao [12] _ is just before _ in series _
nedza (ned nea) _ is next/adjacent to _
negda _ is an egg of/from source _
negvo (neg) _ is negative, as of numbers/charges
nei [12/11] year [nirne] (abbreviation)
nemdi (nem) _ is an enemy of _ in struggle _
nengoi [3] _ enters/goes into _ from _
nenri [16] (nen nei) _ is inside _
nensu _ is a nest of/made by
nerbi (neb) _ is necessary/needed/essential for task/process
nerdei [13] _ is a/the monday/first day of week/month _ nerji (nej) has more energy than _ by _
nerjmistu [11] _ is a/the story of _'s meeting each other
nermei [13] _ is a/the january/first month of year _
nernermei [13] _ is a/the november/eleventh month of year _
nernirmei [13] _ is a/the october/tenth month of year _
nertormei [13] _ is a/the december/twelfth month of year _
nervi (nev) _ is a nerve of _
nesta (nes) _ is honest with _ about _
netclisio [15] _ is a network of members/nodes

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neteri [13] _ is the thirteenth in series
netre (net) _ is a net
ni [12] zero
nia [I] while [doing], during (PA)
nidla _ is a needle
nigro (nig) _ is blacker than _
niklo _ is an amount of nickel Ni
nikri (nik) _ is cheese from source _
nilboi [I] _ is a child
nilca _ is vertically below _ in gravity field _
nimla (nim nia) _ is an animal
nirda _ is a bird
nirli (nil) _ is a girl
nirne [13] (nin nie) _ lasts _ years; is _ years old (default 1)
nitci (nit) _ is neater than _
nitro _ is nitrogen N
nivi [12/7] nowhere
no [1] it is not the case that _
noa [6/6] _ only if _
noanoi [6/6] not both _ and _
noe [6/6] not ,, but _
noenoi [6/6] neither _ nor _
nokou [10/4] despite physical cause/factor _; although
nomfoa [14] _ is the normal form of expression _ under/within system _
nomoi [10/7, 4] despite motivation_; although
nonukou [10/5] nevertheless unexpected physical result _
```

nonumoi $[10 / 7,5]$ nevertheless unmotivated result _
nonurau [ $10 / 6,5$ ] nevertheless unjustified result
nonusoa [10/8,5] nevertheless unentailed result _
norau [10/6, 4] despite justification ; ;athough
nordi (nod) _ is a north[em part] of _
norgleca [16] _ is non-English in feature _
norji _ is more orange than _
norlogla [14] _ is non-Loglandic in language
norma [14] (nom noa) _is an average [instance] of _ nornurvia [14] _ is unseen/invisible to _ under conditions _
norsensi [14] _ is nonscientific
norstifa [15] _ is flexible/non-rigid in movement _
norvia [14] _ is blind to/overlooks _ in situation _
nosoa [10/8, 4] despite premiss/argument _; although
notbi [8] (not noi) _ is other than/not the same as -
nou [6/6] not , whether _ or not
nu [2/13] [switches first and second blanks]
nue [ $11 / 1]$ neutrality register marker (<nutra)
nufe [16/7] [fourth passive (the one after $\mathbf{j u}$ ), switching first and fifth arguments]
nukle (nue) _ is the nucleus of atom/cell _
nukou [10/3] physically causing _; therefore _
numcu [12] (num nuu) _ is a number
numoi $[10 / 7,3]$ motivating_; therefore _
Numoihu? [10] To what end? What good would it do? (free modifier)
nurau $[10 / 6,3]$ justifying _; therefore _
nurcuesaa [14] _ is a quotation mark delimiting quote _
nurduisia [16] _ is a known/explored area for people _
nurjai [12] _ is the result of dividing _ by
nurmue [15] _ is more moderate than _ in quality _
nurpeo [16] _ is a topic for thought to _
nurpli [13] _is used by _for purpose _
nursancue [4] __identifies _ as _
nurvembuu [12] _is a catalog from vendor _ of merchandise _
nurvia [6] _ is visible to _ against background _
nusoa [10/8, 3] entailing _; therefore _
nutra _ is neutral in fight/struggle _ between _
nuu [6/6] whether _ or not, _
nuunoi [6/6] whether_ or not, is not _
nuzvo (nuz) news of/about _ from source _
o [6/6] _if and only if _
oa [2/5] it is necessary that __ must _ (Strong obligation indicator; free modifier)
oe [2/5] I/you should (free modifier)
oi [2/5] $\mathrm{I} / \mathrm{you}$ may (free modifier)
onoi [6/6] _ or _, but not both
ou [2/5] it doesn't matter (free modifier)
pa [1] before, earlier
packe _is a pocket of garment
padzi _ is a pad/cushion/pillow
pafa [11/6] was about to (compound inflector)
pafko (paf) _ digs _ up out of _
pahu [3/4] before when?
pakcia [14] _ learns _ before [learning] _
palci _ is an amount of polish
palto _ is a potato from source
panba (pan) _ is a pan; a handled cooking vessel
pandi _ is worth _ pounds; default 1
panki _ is panicked by _
pantu _ is a pair of pants/trousers
papa [11/6] had [done] _(compound inflector)
papre (pre) _ is a piece of paper
parti (par pai) _ is a part of whole _
pasko (pas pak pao) _ is in the past of/earlier than/before _; default now
pasnai [8] _ is the evening of day _
paspo _ is a passport issued to _ by _for _
pasti _ is a paste/glue/cement for materials _
patce (pac pae) _ is an apparatus/device for doing _
patpe (pat) _ is a pot; a deep cooking/storage vessel
paza [11/2] before (compound inflector)
pazda (paz) _ pauses/waits for _ before doing _
pazi [11/2] recently; just before _; just now (compound inflector)
pazu [11/2] long ago (compound inflector)
pe [4/9] of (A word indicating "possession" or general relationship.)
pebtoa [14] _"despecializes"/makes _ ordinary by doing _
pelpi _ is a [piece of] leather/skin/hide/pelt from source _
pelto _ is yellower than _
penbi _is a pen
pendi (ped) _ hangs from _ in gravity field _
penfoa [16] _ is a thought-form, a way of thinking used by _ under conditions _

```
penja (pej) _ is a sponge
penre (pee) _ is a parent of _ with co-parent
penrie [16] _ is a tool for thought used by _ under conditions _
pensai [14] _ is pensive/thoughtfully silent
penso [3] (pen peo) _ think about _
penta (pet pea) _ is a point of _
perdri [11] _ remembers/recognizes person _
pernu [10] (per peu) _ is a person
persa _ is a pear from source _
perti [8] _ concerns/pertains to
pertymao [12] _ makes _ relevant to _
pesro _ is worth _ pesos; default l
pesta _ is worth _ pesetas; default l
petci (pec pei) _pays _ to _ for goods/service _
petri _ distributes/shares _ out among _
peu about, concerning [14]
peudja [5] _ knows/is acquainted with person _
pi [13/6, 7] [decimal] point
pidri _ is a page of document _
pifno (pif pio) _ is more frequent than _ under _
pikti [12] (pik) _ is a trillionth of _
pilno (pil) _ is a plane/flat/plain through points _
pinca (pic) _ is urine of _
pinda (pid) _ is a pin
pingu _ is a penis of _
pinsi _ is a pencil
```

pinti [10] (pin) _ is a quantity of paint pio [12] plus
piplo (pip) _ is the people/folk of place/country _ pirle (pir pie) _ is parallel to _ pisku (piu) _ is a piece of _ pismi (pis) _ is at peace with piu [15] in particular (free modifier) pizdo _ is a pea from
plado (lad) _ is a plow plata (pla) _ is a plate/dish of food
pleci (ple) _ plays at/with _ plefoa [16] _ is a game played by
plekri [12] _ pretends/plays that _ is true plidja [12] _ knows how to use _ pligo _ is an apple from source plizo (pli) _ uses/employs/utilizes _for _ pluci (plu) _pleases _by _ pluma (lum lua) _ is a feather/plume/plumage of _ po [9] _ is an event/instance of _ poldi (pol) _ is the nation/state/polity/country of people _ polsi [13] _ is a police officer/works for the police of area _ ponda (poa) responds/reacts _ to _ under conditions
ponja [11] _ is a part of the Japanese language
ponje [11] _ is a Japanese area
ponji _ is a Japanese person
ponjo _ is a part of the Japanese culture

```
ponsu [7] (pon pou) _ owns _ under law/custom _
porju (poj) _ is a pig
porli [13] (poi) _ has power/is lord over _
posta (pos) mails _ to _ from _ by _
pozfa [14] (poz) _ opposes _ in matter _
pozvo (pov) _ is positive [numbers/charges]
prali (ral) _ is the profit to _ from _
prano _ runs to _ from _ over path _
prase (pra) _ is a process continuing through stages _
prati [6] (rat) _ is a price of _ to _ from seller _
preni _ is a prisoner of _ for act/state _
prire (pri) _ is behind/to the rear of/in back of _
prizi (riz) _ is private to _
proga (rog) _ is a program written by _ for/to do _ on system _
proju (pro) _ produces _ by process _
proza _ is a prose work by
pruci (pru) _ is a test for _ among _
prusa (rus) _ approves plan/proposed action _ by _
prutu (ruu) _ protests _ to _ by doing/saying _
pu [9] _ is a quality of
publi (pub) _ is more public among _ than _
pubmo (pum) _ is an amount of lead
pucto (puc puo) _ pushes/propels _to _ from _ via _
pudja _ is a thumb of _
pudru (pud) _ is powder from source _
pulso (pul) _ has an impulse/be impelled to do _
```

pundo _ weighs _ pounds; default 1
punfo _ is more pure/uniform/homogeneous than _
puntu (pun puu) _feels pain/hurt in _
purcu _ is poorer than _ in _
purda (pur pua) _ is the word for _ in language _
purfe (puf pue) _ is perfect by standard _
purpu (pup) _ is more purple than
ra [13/1] all
-ra [13/8] -some, is a group with - members (Predicate-forming suffix)
racrie [15] _ is a means of travel to _ from _ via _
racyspe [15] _ experiences [place, culture, etc.] _ by travel
radjo _ is a radio receiver in network _
rana [13/3] always (quantified inflector)
rande (rad rae) _ is a round/circle/disk
ranjo __ranges/extends over
radridmai [15] _ is a disk drive in system _
ranta (ran) _ is more rotten than _
rapcu (rap) _ is riper than _
rara [13/8] "allsome" (a group composed of everyone)
rari [13/10] "allth"
rasto _ is made of brass
ratcu (rau) _ is a rat
ran [10/6] justified by ; because of _
ravi [13/3] everywhere (all-here) (quantified inflector)
raznu [14] (raz) _ is a reason for _ to do _ under conditions _
re [13/1] most
rea [3] of course, clearly, obviously (free modifier)
redro [2] (red) _ is redder than _
rembiu [9] _ is [naturally] friendly to _
remcli [5] _ is friendly/like a friend to _
remkao [9] _ acts/pretends to be friendly to _ for purpose _
rena [13/3] most of the time (quantified inflector)
renro (ren reo) _throws/propels _ to/at/toward _
repduo [5] _ answers question _ posed by _
repduokii [16] _joins _ in answering question _ put by _
resfu (res ref) _ is an item of clothing
respli [11] _ wears clothing _
resra [6] _ is a restaurant of area _
resto (ret) _ rests/reposes/lies down on _
retca [15] (rec rea) _ differs from _ in feature _
retpi [6] _ is an answer to question _ by [answerer] _
retrroviri [I] _ is a retrovirus
revi [13/3] (in) most places (quantified inflector)
revri (rev rei) dreams [that] _
ri [13/1] a few/several
-ri [13/10] _is the -th member of group _ (ordinal suffix)
ridle [1] (rid) _reads _from/in/on _ (a book, sign, etc.)
ridspe [16] _ experiences _ by reading about it
ridydui [16] _ discovers _ by reading about it
rie [11/1] respect register marker (<rispe)
rilri (rii) _ is more regular/periodic than
rinda _ is a part of an Amerind language
rindi _is an Amerindian person
rindo _ is a part of Amerind culture
rinje (rin) _ is a ring/band on/around _ rinta (rit) _ is the rhythm of
rirda (rir) _ is a record of _ on medium _
rirgu _ is the buttock[s] of _
rismi _ is rice from source _
rispe (ris rie) _respects _for doing/being _
ritco (ric) _ is the right of _/-hand side of _
ritma _ is wheat from source _
ro [13/1] many
rodja (roj roa) _ grows in place _ under conditions _
rodlu _ is a road between points _ via _
rofsu (rof ros) _ is rougher/more abrasive than _
rogduo [10] _ is a programmer/writes program _ on computer/system _
roirtargo [14] _ quarrels with _over/about _
rolgu (rol) _is a roll/roller/cylinder
romni _is a Roman person
rona [13/3] often (quantified inflector)
rora [13/8] "manysome," multitude
rozme _ is a rose from source _
ru [13/1] enough
rubli _ is worth _ rubles; default 1
rulni (rul rui) _ is a rule prescribing _ to _ under _
rulpi _is worth _ rupees; default 1
rura [13/8] "enoughsome"
ruri [13/10] "enoughth"
ruska _ is a part of the Russian language
ruski _ is a Russian person
rusko _ is a part of Russian culture
rutma (rut rua) _ is a route/path to _ from _
sa [13/4] almost, about
sa[ra] [13/5] almost all
saa [5] simply put (free modifier)
saadja [2] _ understands the meaning of sign/symbol _
sacdou [14] _founds _
sacduo [12]_ begins to [do] _
sackaa [3] _ departs/leaves _for_
sadji [5] (sad saj) _ is wiser than _ about _
sagro _is a cigar
sakli (sak) _ is a sack/bag/pouch of/containing _
sakta _ is a sugar
saldi (sal) _ is solid below temperature and pressure
salfa (saf) _ is a sail of vessel
samto [16] (sam sao) _ is the same thing as _
sanca (sna) _ is sand from source
sandui [11] _ finds evidence _ of _
sange (sag) _ suggests/proposes action _to _
sanla _ is an umbrella
sanpa [3] (san saa) _ is a sign meaning _ to _ and prompting behavior _ under circumstances _
sanse (sas sae) _ senses stimulus _ under _
santi [9] (sai) _ is quieter than_ sao [16/10] [introduces a borrowed predicate]
sapla (sap) _ is simpler than _ in respect _
sarni (sar) _ is more sour than _ to _
satci (sac) _ is the start/source/origin/beginning of _
satro (sat) _ strokes/rubs _ with _
se [12] seven
sei [12/11] second [sekmi] (abbreviation)
sekci (sec) _ behaves sexually toward
sekmi _ lasts _ seconds; default 1
sekre _ is a secretary of _
sekta (sek) _ is an insect
selfatru [I] _ troubles/bothers to [do] _ despite effort/annoyance ..
selji (sel) _ is the self[-image] of _
sensi (ses) _ is a scientific fact/principle of/about
sensycle [14] _ lacks scientific basis in feature _
sento (seo) _ is holy/sacred to _
serdei [13] _ is a/the sunday/seventh day of week/month _
sermei [13] _ is a/the july/seventh month of year _
sesduvrai [15] _ experiments with _ to find _
sesmao [10] _ contributes to science _; is a scientist
sespozfa [14] _ is antiscientific/antagonistic to science in feature _
sesrie [15] _ is a scientific instrument for _
sesycko [10] _ contributes unintentionally to science _
setci (set sei) set/group of elements
setfa (sea) puts/places/sets _ on/at _
si [13/4] at most
si[ne] [13/5] at most one
sia [3] thanks (PA)
sibli (sib) _ is a sibling of _ through parents
sidra _is a cedar from
sidza (siz) _ is a seed of plant _
sigre cigarette
sii [4] apparently, seemingly (free modifier)
siltu (sil siu) _ shakes/oscillates/vibrates at rate _ and amplitude _
simba _ is a lion
simci (sim sii) _ seems/appear sto be _to _ under _
simfoa [5] _ is the appearance/look(s) of _
sinma [8] (sin) _ is a movie [cinema] made by _
siodja [8] _ understands system/person _
sirdja [8] _ knows _ for certain about _
sirto [8] (sir) _ is certain that _ is true
sismao [11] _ arranges _ according to system _
sisto [8] (sis sio) _ is a system among elements _
sitci [15] (sic) _ is a city/town with hinterland _
sitfa [11] (sit sif sia) _ is a site/place/location of _
skaca _ is a part of the Scottish language/dialect
skaci _ is a Scottish person
skaco _ is a part of Scottish culture
skafi _is a coffee
skalu (ska) _ is a scale measuring _ among _
skapi _ is a skin/rind/outer covering of _

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skara is a skirt
skati _ is an expanse of sky at place _
skesa kisses _on
skitu (ski) _ sits [down] on _
skizo (kiz) _ is a ski
skori (sko) _ is a screw
slano (sla) _ is slower than _ by _
sliti (sli) _ is sweeter than _ to _
slopu (slo) _ is steeper than _ by
sluko (slu) _ is a lock of/on _
smano (sma) _ is smoke from source _
smarue [I] _ smokes _
smike (smi) _ is kept secret from _ by _
smikycue [14] _ confides/tells secret _ to _; soi smikycue confidentially, just between you and me
smina (min) _ is the mind of _
smupi (smu) _ is smoother than _ by _
sneku (sne) _ is the neck of 
snice (nic) _ is a quantity/expanse of snow
snire (sni) _ is nearer/closer than _ to _ by _
snola (sno) _ entails/implies _under rules _
so [12] six
soa [10/8] entailed by _; because of _
socgoi [7] _ visits [person(s)] _
socli [4] (soc) _ interacts socially with _
socyjmi [11] _ meets _ socially
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socysensi [3] _ is a fact about social-science
sofha _ is a sofa
soi [11/5] [pseudonomatopoeia marker: turns following predicate into attitudinal indicator]
sokcu _ is an oak from source _
solda (sod) _ is a soldier of unit/army _
solra (sol) _ is solar
solte (sot) _ is salt from source _
soncue [I] _ pronounces _ according to language/dialect
sonda (son soa) _ is a sound/noise emitted by
sonli (soi) _is asleep
sordei [13] _ is a/the saturday/sixth day of week/month _
sordi (sro) _ is a store/deposit/reserve of _
sorgu (sog) _ is an ear of _
sorme [7] (som soe) _ is a sister of _ with parents _
sormei [13] _ is a/the june/sixth month of year _
spadi _ is a mattress/pallet/pad
spali (pal) _ is a side of _ bounded by edges _
spana [7] _ is part of the Spanish language
spani _ is a Spaniard
spano _ is a part of Spanish culture
spasi (spa) _ is the space/volume occupied by
spebi [14] (peb) _ is special/specific to _ out of group _
speci _ is a species of genus _
specia [16] _ learns [about] _ by experience
spedja [8] _ knows _ by experience
speni [4] (spe) _ experiences _; spends _ [time] Tu he speni? How are you doing?
(You are how experiencing [life]?)
spetu _ is spit/spittle of
spicu (spi) _ is a spirit/ghost of _ seen by _
spodru [9] _ loses hope/despairs of/that _
spopa [9] (spo) _ hopes [that] _ [will occur]
spori _ is a spring (elastic device)
spuro [5] (spu) _ is expert/skilled at/in _ under conditions _
sputa (put) _is a spoon
srikii [11] _co-writes _ with _
srisu (riu) _ is serious/grave about _
srite (sri) _ writes _ on surface _
stadi (sta) _ is a stage of hall/auditorium/theater _
staga _ is a stalk/stem/trunk of _
stali (tai) _ stands up/on _
stana _ is a station of transport system _
stari [15] _ surprises/startles _ by [doing] _
steti [11] (ste) _ is a sentence/statement about _ in language _
stifa [15] _ is stiffer than _in direction _
stino _ is an amount of tin
stire (tir tie) _ is a stair of structure
stise [9] (sti) _ stops/ceases [doing] _
stolo [3] (sto) _ stays at
stuci (stu) _ is a story about _ as told by _
stude _ is a student of _ at institution _
stuka _ is a stick of/made of
stuli (tui) _ adjusts/regulates _ for function _
stupeu [16] _ is a character in story _
su [13/4] at least
su[ne] [13/5] at least one
sucmi _ swims to _ from _ via _
sudna _ seems sudden/abrupt to _
suksi (sku) _ succeeds in _ by effort _
sulba (sul) _ is a swelling/bump at/in/on _ from _
sulfo _ is an amount of sulfur $S$
sumdui [16] _ finds the sum of _ and _
sumji (sum) _ is the sum/total of _ plus
suna [13/3] sometime (at least once) (quantified inflector)
sundi (sui) _ sends/despatches _ to _from _.via route _
sunho (sun suo) _ is a son of parent(s) _
supta (sup) _ is a soup/stew of ingredients
surba _ insures _ against _ for fee _
surdi (sud) _ is the south[ern part] of _
surna (sru) _injures/damages_at/in _
surva (suv) _ serves _in/by _
sutme (sut) _ is a smell/odor/aroma emitted by
surva [7] _ serves _ by doing _
takma _ attacks _ with goal _
takna [1] (tak taa) _talks to _ about _
takridle [9] _reads _ aloud to _
taksai [I] _ is a pause in speech/discourse _
taksi _ is a taxi/cab/taxicab

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talna _ is a part of the Italian language
talni _ is an Italian [person]
talno _ is a part of Italian culture
tao [3] that situation (the one that has been mentioned)
tarci (tar) _ is a star of galaxy _
targo (tag tao) _ argues/disputes with/against _ that _
tarle [4] (tal tae) _ is tired from _
tarmu (tam tau) _ is a weapon for use _
tarsandui [10] _ is an astrologer in school/culture
tarsensi [10] _ is a fact about astronomy
tasgu _ is disgusted/offended at/by _
tatro (tat) _ is a theater/theatre of community _
tcaberti [3] _ transports _ to _ from_
tcaku (cak) _ is shocked by
tcali (cal) _ is a wall of/around _
tcanakso [9] _ is a mechanic on vehicle(s) _
tcane (can cae) _ is chance/random under conditions _
tcaro [3] (tca) _ is an automobile/car
tcastosia [6] _ is a parking lot of area/facility _
tcati _ is tea from source _
tcela _ is a wing of _
tcena _ is a length of chain
tceru (tce) _ penetrates/passes through _ in direction _
tceti _ is the chest of _ (body part)
tcidaa [6] _ is hungry
tcidi [7] (cii) _ is food of/edible to
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tciha _ is a child/offspring of parent(s) _ tcihea [16] _feeds _food _
tcina _ is the chin of
tciro _is a mat
tcoko [12] _ is a quantity of chocolate
tcori _is an authority in/on/over _
tcure [3] (tcu) _ is a picture of _ by _
te [12] three
tedji [3] (ted tej tei) _ pays attention to _
tedmou [12] _ is more attentive than _ to _
tekto _ is an architect ôf _
telbie [I] _ is a horizon seen from altitude _ above the surface of _
telfo _ is a telephone/phone receiver in network _
telfyduo [9]_telephones _
telfypli [9] _uses a telephone
telvi _ is a television/TV receiver in network _
tenri [16] (ten) _increases _ by _in dimension _
tenta _ is a tent of
tepli (tep) _ is a temple/church of religion _
tera [13/8] threesome, trio
terdalra [12] _is a three-dollar item
terdei [13] _ is a/the wednesday/third day of week/month _
terla (tel) _ is terrestrial/earthly
termei [13] _ is a/the march/third month of year _
tetcu (tec teu) _ stretches to _from _
tetri (tet) _ is an instance of weather in place/region _
ti [1] this/these one(s)
tia [12] times/multiplied by
tidjo [12] (tid tio) _ is heavier than _ by _in gravity-field _
tifru (tif tiu) _ offers _ to _ for use/purpose _
tigra _ is a tiger
tilba _ is a tail of _
tinmo (tin) _ is an amount of ink
tirca (tic) _ is a length of wire
tisra [6] (tis tia) _ chooses _from set _
titci [6] (tci) _eats _
titfa _ is a breast/teat of _
to [12] two
toa [2] that remark/statement
tobme (tob toe) _ is a table
tobsua [7] _ waits on diner _ with food _
tocki _ is a key to lock
togri [6] (tog toi) _ agrees with _ about/that _
toi [2] this remark/statement
tokna (toa) _takes _ away from _
tokri _ is chalk from source _
tolpaesio [8] _ is a/the control/steering system of device _
tomk: (tok) _ is automatic in function _
tomto is a tomato from source
tona [12/7] twice (two-now) (quantified inflector)
tongu _ is a tongue of _
tordei [13] _is a/the tuesday/second day of week/month
torkrilu [3] _ is a bicycle
tormei [13] _ is a/the february/second month of year _
torni (ton) _ twists under load _
tosku _ is the skull of _
totco (toc tco) _ touches _ with _
totnu (tot) _ is thicker than _by
tovru (tov) _ is vertically over/above _ in gravity field _
traci (rac) _ travels to _ from _ via route _
tradu (tra) _ is true by rule/standard _
trali _ is tray of/containing
trana (tan) _turns/rotates/revolves around internal axis
trati (rai) _ tries/attempts to do/attain _ by _
treci [3] _ is interesting to _ in feature(s) _
trecymou [5] _ is more interesting to _ than _is to _
trelu (rel reu) _ is a rail/railing/bar
trena (tre) _ is a train of system _
tricu (tri) _ is a tree
trida _ is a street of
trili (til) _ attracts _ by doing/being _
trime (rim rie) _ is a tool/implement/instrument for doing _
troku (tro) _ is a rock/stone from source _
troli (tol) _ controls _ in action/process/performance _
troti _ trots to _ from _
trufa (ruf) _ is a roof of
truke (tru) _ is the structure of _
tsani (tsa) _ sneezes

```
tsero (tse) _ error/defect/mistake in _ by standard _
tsime (tsi) _ crime punished by _ among _
tsodi (tso) _ hates _ for doing/being _
tsufi (tsu) _ is sufficient/enough for use/purpose _
tu [1] you
tua [11/15] you and X (tu ze da)
tubli (tub) _ is a length of tube/pipe
tue [11/15] you and Y (tu ze de)
tugle (tul tue) _ is a leg of _
tui [11/15] you and Z (tu ze di)
tulpi _ is a tulip from source _
tuo [11/15] you and H (tu ze do)
turcefli [10] _ is the boss of _ in area _
turflo [16] _ is arduous for _
turka (tur tua) _ works on/at _ with goal _
tursia [13] _ is a workplace of _ for work _
tuu [11/15] you and Q (tu ze du)
u [6/6] _ whether _ or not
ui [4] Good! (Attitudinal indicator expressing pleasure.)
uu [4] Oh. (Attitudinal indicator expressing sorrow or regret.)
va [l] there (by you)
vahu [3/4] near where?
vaksi _ is a vaccine against disease _ in
valda (vad) _ develops/acquires new property/feature _
valna (van vaa) _ is violent in response to _
valpu (vap) _ is a wave in medium _
```

valti (val vai) _ vaults/jumps over/across _
vamtu _ vomits _/throws _up on _
vapro (vao) _ is a gas/vapor above temp _
vatlu [10] (vat vau) _ has a value of _ to _for use _
ve [12] nine
vedma [7] (ved vem vea) _ sells _ to _for price _
vefhea [16] _enhances/encourages creativity
vefpeo [12] _ thinks up _for purpose _; Soi vefpeo Let's see.
vegri [11] (veg) _ is greener than _
vendu (ven veu) _ is poison[ous] to _
vermei [13] _ is a/the september/ninth month of year _
versa (ves) _ is a poem/verse by _
veslo (vel veo) _ is a vessel/container of/containing _
vetci [9] (vet vei) _ happens to _
vetfa [10] (vef) _invents _ for use _
vi [1] here
vidju (vij viu) _ is a view/image of _ from viewpoint/perspective _
vidre (vid vie) _ is an idea about _ experienced by thinker _
vidydui [12] _ has/hits on idea _ about _; Soi vidydui! Eureka! Bingo!
vihu [3/4] at what place? where?
vinjo vin _ is wine from source
virta vit _ is an advertisement for _ in medium _
visra _ is the guts/intestines/viscera of _
viza [11/2] in this area (compound inflector)
vizi [11/2] in this very spot (compound inflector)
vizka [I] (viz vik via) _ sees _ against background
vizu [11/2] in this region (compound inflector)
vlaci _ washes _ in
vlako (vla) _ is a lake of landmass
vo [12] eight
volsi (vol voi) _ is the voice of individual _
volta _ has _ volts e.m.f.; default I
vormei [13] _ is a/the august/eighth month of year _
vrano _ is the liver of _
vreti (vre) _ is vertical/upright in gravity field _
vrici (vri) _is a river of landmass
vu [1] yonder, over there, far away
Xaiykre [I] _ is an X-ray from source _
-za [11/2] intermediate area/time
zakra _ grinds/crushes _ into powder _
zavcko [10] _ happens to worsen _
zavlo (zav zal zao) _ is worse than _for _
zavmoutsu [13] _ is excessive/too much in feature _
zavno (zan) _ is an oven of
zbuma (zbu) _ explodes into _
ze [8] -and [jointly]-
-zi [11/2] small/immediate area/time
zinko _ is an amount of zinc
zlupi _ is a lip of _
zo [9] _ is an amount/quantity of _
-zu [11/2] large/distant area/time
zvoto (zvo) out[side of]

## English-Loglan Vocabulary

```
abdomen/belly of _ beldu
able to [do] _ under conditions _ kanmo (kan) [13]
about to [do] _ durbiesni [9]
about, almost [with numbers] sa [13/4]
about, concerning peu [14] (PA)
above _ in gravity field _ tovru (tov)
accompanies _ in doing _ kinci (kin kii) [6]
according to _coi [10] (PA)
account/bill/check for_to _ by _ kanti
across _ from _ karsa (kas)
act: _ does act _ with goal _ kakto (kak kao)
acts like _ in action _ durcli [15]
acts/pretends to be friendly to _ for purpose _ remkao [9]
actually feu [3] (free modifier)
addition: in - to _ mou [10] (PA) [Do not confuse this with connective+mou more
    thann]
adheres to _ gomni (gom)
adjusts/regulates _ for function _ stuli (tui)
adornment on _ durna (dun dua)
advertisement for _ in medium _ virta (vit)
affair/matter involving _ ferci (fec fei)
afraid of/that _ firpa (fir fia) [8]
after fa [1]
after/later than: is - _ futci (fut fuc fui)
```

```
again: a recurrence of _ genza (gen gea)
again; I repeat gea [9] (free modifier)
agrees with _ about/that _ togri (tog toi) [6]
agrees/promises to [do] _ to/for_ durtoi [11]
ahead of_frena (fre)
air kerti (ker)
alive/live [-ing] clivi (liv lii)
all ra [13/1]
allsome (a group composed of everyone) rara [13/8]
almost all sa[ra] [13/5]
almost, about sa [13/4]
although _: despite physical cause/factor _ nokou [10/4]; despite motivation _ nomoi
    [10/7, 4]; despite justification _ norau [10/6, 4]; despite premiss/argument
    nosoa [10/8, 4]
always rana [13/3] (quantified inflector)
American: culture merko; - language/dialect merka; - person merki
Amerind: culture rindo; - language rinda; - person rindi
amount of _ on scale _ canli (cna cai)
amount/quantity of being/doing _ zo [9]
amused by _ cmiza (cmi) [16]
And I [3] (begins a follow-up sentence)
_ and _e [6/6]
-and [jointly]- ze [8]
_ and/or_a [6/6]
angle at _ between points _ jaglo (jag jao)
angry/grouchy with _ about _ groci (roi) [4]; becomes - at _ grocycea [5]
```

```
animal nimla (nim nia)
answer to question _ by [answerer] _ retpi [6]
answers question _ posed by _ repduo [5]; joins _ in answering question _ put by _
    repduokii [16]
answers/replies _ to questioner _ dapli (dap)
ant of hill/colony _ manti
anti-Loglandic, contrary to the spirit of Loglan, in feature _ logpozfa [14]
antiscientific/antagonistic to science in feature _ sespozfa [14]
anus of _ gasno (gas gao)
any person or thing that actually [predicate] lee [11/13] (descriptor)
apart from _ narti
apparatus/device for doing _ patce (pac pae)
apparently sii [4] (free modifier)
appearance/look(s) of _ simfoa [5]
appears to be _ to _ under conditions _ simci (sim sii)
apple from source _ pligo
apprentice/disciple of teacher _ in subject _ kincia [11
approves plan/proposed action _ by _ prusa (rus)
april/fourth month of year _ formei [13]
arches over _ farka
architect of _ tekto
arduous for _ turflo [16]
argues/disputes with/against _ that _ targo (tag tao)
arithmetic for deriving _ from _ konmathe [12]
arm of _ barma (bar baa)
armed forces: a member of the - of _ bilca (bic)
```

```
army of _ narmi
arranges _ according to system _ sismao [11]
art of creating/adorning _ among _ larte (lar lae)
ashamed of doing/being _ comtu (com cot cou) [11]
asks/questions _ about _ kenduo [8]
asleep sonli (soi)
astrologer in school/culture _ tarsandui [10]
astronomy (a fact about -) tarsensi [10]
at most si [13/4];-one si[ne] [13/5]
at least su [13/4]; - one su[ne] [13/5]
atom of _ athomi [I]
attacks _ with goal _ takma
attention: pays - to _ tedji (ted tej tei) [3]
attentive: more - than _ to _tedmou [12]
attracts _ by doing/being _ trili (til)
august/eighth month of year _ vormei [13]
authority: an - in/on/over _ tcori
automatic in function _ tomki (tok)
automobile/car tcaro (tca) [3]
average [instance] of _ norma (nom noa) [14]
awake [adj] cidja (cid)
b (the lowercase letter) bei [3/5]
baby/infant of _ cinta (cin)
bad: worse than _for_ zavlo (zav zal zao)
balanced under forces _ balpi (bal)
balcony of building _ balko
```

```
ball/sphere balma (bam)
band/orchestra of players _ bendu (ben beu)
bank of community _ banko
bar/tavern of community _ barcu
base/basis of _ basni (bas) [14]
basket of/containing _ banse
bathes in _ banci
bay of coast _ banbe
bead of _ bidzi
bean from _ bindo (bio)
beautiful: more - than _ to _ bilti (bil bii) [9]
because of _: justified by _ rau [10/6]; physically caused by _ kou [10/1]; entailed by
    _ soa [10/8]; motivated by _ moi [10/7]
becomes _from _ cenja (cej cea)
bed bedpu (bed)
bee bifci (bif)
beer birju
before when? pahu [3/4]
before: is - _; default now pasko (pas pak pao); is just - _ in series _ nedpao [12]
before, earlier pa [1] (inflector); sometime - paza [11/2] (compound inflector)
beginning Loglanist logjunti [4]
beginning of _ satci (sac)
begins to [do] _ sacduo [12]
behaves _ under _ bivdu (biv bid biu) [15]
behind/to the rear of/in back of _ prire (pri)
believes _ about _ krido (kri)
```

```
bell producing sound/note _ bekli (bel)
belly/abdomen of _ beldu
below _ in gravity field _ nilca
bent/crooked: more - than _ betcu (bet)
beta (the lowercase Greek letter ß) beo [3/11]
better than _ for/in _ gudbi (gud gub) [2]
between _ and _ bitsa (bit bia)
beyond _ from _ on route/path _ by distance _ bande (ban bae)
bicycle torkrilu [3]
bigger than _ by _ groda (gro)
bill/check for _to _by _ kanti
billionfold of _ gigdo (gig) [12]
billionth of _ nanti (nan) [12]
Bingo! [I've got it/an idea!] Soi vidydui!
biology: a fact about - livsensi [10]
bird nirda
bites _on/at _ ditka (dit)
bitter: more - than _ to _ kutra (kut)
blacker than _ nigro (nig)
blade of tool/weapon _ blada (bla)
blind to/overlooks _ in situation _ norvia [14]
block of material _ bloku
blood of organism _ bludi (blu)
blouse blusa
bluer than _ blanu [5]
board of material _ barta
```

```
boat botsu (bot bou)
body of _ korti (kor)
boils at temperature _ bulju (buj)
bomb [n] bomba
bone of _ bongu (bon)
book about _ by author _ bukcu (buk buu) [1]
boot butpa
born to mother _ brana (bra)
boss of _ in area _ turcefli [10]
bottle of/containing _ batpi (bap)
bow [for arrows] borku (bor)
box bakso (bao) [16]
box-maker baormao [3]
boy botci (boi)
brain of _ berna
brake of vehicle/system _ breko (rek) [8]
brake system of vehicle/system _ brekysio [8]
branch/bough/limb of _ badjo (baj)
brass: made of - rasto
braver/more courageous than _ under _ briga (rig ria)
bread breba (reb)
breaks/fractures into pieces _ broko (bro)
breast/teat of _ titfa
breathes _ brute (rue)
breeze/wind from direction _ brize (bri)
brick briku (rik)
```

bridge over/across _ cibra
brilliant/bright: more - than _by _ brili (ril)
British culture (a part of) brito [16]
broader than _ by _ kubra (kub)
broken/inoperative/not working broda (rod) [3]
brooch bruci
brother of _ through parents _ brudi (bru) [3]
browner than _ brona (ron)
brush [n] brocu (roc rou)
bucket/pail of/containing _ bakto (bak)
builds _ from materials _ balci (bac bai)
bulbous root of plant/species _ bulbi (bul bui)
bundle/package of/containing _ badlo (bad)
burns at temperature _ cabro (cab cao)
bush/brush of _ bucto (buc)
_ but not _ enoi [6/6]
butter batra
butterfly hitli
buttock[s] of _ rirgu
button of _ botni
buys _from _ for price _ furvea [6]
cabaret/night-club of community _ kabre
cabbage from source _ kolhe
cabin/hut of _ kabni
cafe of community _ ckafe
cake grato

```
called/also known as _ bi [4/4]
called/also known as one of _ bie [4/8]
camel camle
camera kamra (kar)
camp of _ at _ kampo
can't decide what to do/indecisive about _ disfiu [6]
canal between points _ via _ kanla
cane/rod/staff kanra
captain of _ kapta
car/automobile tcaro (tca) [3]
carbon C carbo (car)
card karda [11]
care: I don't care au [2/5]
cares for/takes care of _ kerju (kej keu) [2]
carries/bears _ to _ from _ berti (ber bei)
cart/carriage/wagon karti
cat katma
catalog from vendor _ of merchandise _ nurvembuu [12]
causes _ under circumstances _ ckozu (cko) [3]
cave/cavity/cavern in _ kuvla
cedar from _ sidra
cell of organism _ celhu (cel)
center: at/in the - of _ midju (mid mij)
cereal from source _ grunu (run)
certain that _ is true sirto (sir) [8]
certainly [it's true that...] ia [1;2/5]
```

```
chain tcena
chair cersi (cer cei)
chalk from source _ tokri
chance/random under conditions _ tcane (can cae)
character in story _ stupeu [16]
cheese from source _ nikri (nik)
chemical: a pure instance of - _ kemdi (kem)
cherry from _ certa
chest of _ (body part) tceti
chestnut from _ cesni
chicken/hen henji
chief/boss/head of _ for activity _ cefli (cef)
child nilboi [I]; -/offspring of parent(s) _ tciha
chin of _ tcina
Chinese language: part of the - junga; - person jungi
Chinese culture (part of -) jungo [6]
chlorine Cl cloro (clo)
chocolate (quantity of -) tcoko [12]
chooses _ from set _ tisra (tis tia) [6]
church of religion _ tepli (tep)
cigar sagro
cigarette sigre
circle rande (rad rae)
city/town with hinterland _ sitci [15] (sic)
class of _ distinguished by feature _ klesi (kle) [I]
classic in field/genre _ among _ lartygra [16]
```

```
cleaner than _ klini
clearer than _ kliri (kli) [8]
clearly, of course, obviously rea [3] (free modifier)
clears up, becomes unclouded kladydru [4]
clock jokla (jok jol) [12]
clocktime from/beginning at _to/ending at _ jolkeo [12/16]
closed, as of a container/door klogu (klo)
closer than _ to _ by _ snire (sni)
cloth/fabric/textile klabu (kJa)
cloud in airmass _ klada [4]
cloudy/full of clouds kladyilo [4]
coal kolme
coat/jacket kosta
coffee skafi
colder than_by _ kleda
collar of garment _ kalra
color to _/perceived by _ kolro (kol koo)
comb [n] komcu
comes from _ to _ via _ kamla (kam kaa)
comfortable in/about _ komfu (kof kou) [14]; happens to make _ - about _ koucko [11]
comfortable with language _ lenkou [11]; more - than _ is with _lenkoumro [11]
comma (spoken) gu [2/11]
commands _to do _ korji (koj koi)
committee of _ with task _ kamti
common to/shared by members of set _ kumtu (kum kuu) [8]
community of individuals/organisms _ munce (mun)
```

```
company/firm/business chartered by _ for activity _ kompi (kom)
compares _to/with _ in feature _ kambi [11]
compels _ to do/be _ fosli (fos foi)
competes with _ in/over _ kanpi
complete/finished/done by standard _ kapli (kal)
composes/outlines _ danpeo [11]
computer komta (kot)
concerning, about peu [14] (PA)
concerns/pertains to _ perti [8]
confidentially soi smikycue
confides/tells secret _ to _ smikycue [14] soi smikycue confidentially, just between you
    and me
connected to _ at _ djine (dji)
connective/conjunction of language _ djipua [6]
conscious/aware of/that _ kance (kac kae) [9]
consul of _ in _ konsu (kos)
consulate of _ in country _ konsysia [7]
contributes intentionally to science _; _ is a scientist sesmao [10]; - unintentionally to
    science _ sesycko [10]
control/steering system of device _ tolpaesio [8]
controls _ in action/process/performance _ troli (tol)
cooks _for _ kokfa (kok)
copper Cu cupro (cup)
copulates with _ kitsa
copy/facsimile of _ kopca (kop)
copying machine kopmai [15]
```

```
cord/rope/string korce (koc koe)
cork from source _ korka
corn from source _ misme
correct by standard _ dreti (dre) [5]
corresponds/exchanges letters with _ lerbatmi [11]; - with each other batsri [11]
costly: more - than _ for _ kusti
cotton from source _ katna
coughs up/out _ kafso
count/number in set _ konte (kon)
country of people _ gunti (gun gui) [11]
cover of/on _ kuvga (kuv kua)
cow/cattle kasni
co-writes _ with _ srikii [11]
crack/fissure in _ karku
crazy/insane frelo [7]
cream from source _ krima
credit: has - in amount _ with _ kredi
cries/calls out kraku (kra) [7]
crime punished by _ among _ tsime (tsi)
cruel to _ kruli
crushes _ into pulp _ kraco
culturally exchanges with _ kulbatmi [11]
culture of people _ kultu (kul) [7]
cup/vessel of/containing _ kupta (kup)
curtain/drape of/across aperture _ kurti
curve through points _ korva (kov koa)
```

```
custom/habit of _ under conditions _ kusmo (kus kuo) [8]
cuts _ into pieces _ kutla (klu)
cylinder/roller rolgu (rol)
damages _at/in _ surna (sru)
dances to _ danse
dangerous to _ under conditions _ denro (den)
darker than _by _ draka (rak)
daughter of __ detra (det dea) [4]
day [denli] dei [12/11] (abbreviation)
daytime of day _ denli (del dei)
dead morto (mor moo)
dear/precious to _ dipri (dip)
deceives/dupes/tricks _ about _ by _ dupma (dup)
december/twelfth month of year _ nertormei [13]
decides to [do] _ about _ disri (dis dii) [11]
deeper than _ by _ condi (con)
delicate: more - than _ dilko
departs/leaves _for _ sackaa [3]
despecializes/makes _ just like any other thing of the same type by doing _ pebtoa [14]
despite _: physical cause/factor _ nokou [10/4]; - motivation _ nomoi [10/7, 4]; -
    justification_ norau [10/6, 4]; - premiss/argument _ nosoa [10/8, 4]
destroys/ruins _ hutri (hut hui)
detail/particular of _ citlu (cil)
develops/acquires new property/feature _ valda (vad)
dialect of language _ used by _ lenfoa [15]
die/stamp for making an imprint of _ on _ caprie [15]
```

```
differs from _ in feature _ retca (rec rea) [15]
difficult for _ under conditions _ nardu (nau) [8]
digests _ djesi
digs _ up out of _ pafko (paf)
direction: in - _ from _ dirco (dir dio)
dirt/soil/earth from/of _ dertu (der deu)
discovers _ about _ duvri (duv dui); - _ by reading about it ridydui [16]; - _ by
    learning about it from _ cirdui [16]
discusses _ with _ dislu (diu)
disgusted/offended at/by _ tasgu
disk rande (rad rae)
disk drive in system _ radridmai [15]
distributes _ among _ petri
divided by _kua [12/14]
dividend/result of dividing _ by _ nurjai [12]
doctor treating _ for _ with _ kicmu (kic kiu) [4]
does _to _ durzo (dur duo) [l]
dog kangu (kau)
dollar: worth _ dollars (default 1) dalra [12]; - [dalra] Dai [12/11] (abbreviation)
donates to _ gift _ for cause _ donhea [16]
door of/in _ darto (dao)
doubts that _ is true dutci (dut) [15]
drain of _ into _ godru
drawer of/containing _ drara
dreams [that] _ revri (rev rei)
```

```
dress [n.] cadre [11]
drier than _ by _ drani (dra)
drinks _ from _ hompi (hom hoi)
drives _ to _ from _ krani [5]
drop of liquid _ drida
dust dustu (dus)
ear of _ sorgu (sog)
earlier than/before _; default now pasko (pas pak pao)
earns/gains _for work/service _ jurna
east[em part] of _ lesta (les)
easy for _ under conditions _ fasru (fas) [8]
eats _ titci (tci) [6]
edge of _ between _ bidje (bie)
edible to _ tcidi
egg of/from source _ negda
eight vo [12]
elastic: more - than _ lasti (las)
electric charge on _ lenki (lek)
electrical system of _ lekpaesio [8]
employment (gainful) for _ under conditions _ jurnyrie [15]
employs/utilizes _ for_ plizo (pli)
encourages/promotes [the use of] logic in _ by _ lodhea [16]
end/conclusion/termination of thing/process _ fando (fad fao)
enemy of _ in struggle _ nemdi (nem)
energy: has more - than _ by _ nerji (nej)
English: - culture gleco; - language gleca [2]; - person gleci
```

enhances/encourages creativity vefhea [16]
enjoys/is fond of learning _ cirfundi [10]
enough ru [13/1]
enoughsome (a group composed of enough people or things for some purpose) rura
[13/8]
enoughth ruri [13/10]
entailed by _; because of _ soa [10/8]
entailing _; therefore _ nusoa [10/8, 3]
entails/implies _ under rules _ snola (sno)
enters/goes into _ from _ nengoi [3]
equals _in/on dimension _ ciktu (cik ciu)
error/defect/mistake in _ by standard _ tsero (tse)
Eureka! [I've got it/an idea!] Soi vidydui!
evening of day _ pasnai [8]
event/instance of _ po [9]
everywhere ravi [13/3] (all-here) (quantified inflector)
example of _ mipli (mip mii) [I]
exceeds _ in property _ by _ mordu (mro mou)
excessive in feature _ zavmoutsu [13]
excuse me soi fatcou
exists for _ under conditions _ dzabi (dza) [11]
expensive: more - than _for _ kusti
experiences _; spends _ [time] speni (spe) [4] Tu he speni? How are you doing?
(You are how experiencing [life]?); - [place, culture, etc.] _ by travel racyspe [15]; - _ by reading about it ridspe [16]; - _ through language _ lenspe [16] experiences/spends life; "lives" (as in Ta po hapci livspe! That's living!) livspe [10]

```
experiments with _ to find _ sesduvrai [15]
expert/skilled at/in _ under conditions _ spuro (spu) [5]
explains _to _ klimao [I]
explodes into _ zbuma (zbu)
extreme: more - than _ in _ mutce (mut muc mue) [3]
eye of _ menki (mek)
eye-doctor mekykiu [I]
face of _ fasli
fact/observation about _ observed by _ fekto (fek feo)
fails to do/be _ under _ falba (fab faa)
falls to _ from _ in gravity field _ felda (fel fed fea)
false by standard _ falji (fal fai)
familiar/acquainted with _ dridja [14]
family with members _ famji (fam) [4]
famous for _ among _ famva
far away vu [1]
farm of community _ fanra (far)
farther from _ than _ is by distance _ darli (dar) [3]
fast: has a measured speed of _ melkukra [13]; -er than _ by amount _ kukra (kuk)
[3]
fat/grease/oil gresa (gre)
father of _ through mother _ farfu (fra) [5]
fatter/more plump/stout than _ fotpa
feather/plume/plumage of _ pluma (lum lua)
february/second month of year _ tormei [13]
feces/stool of _ ctuda (ctu)
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feeds _ food __ tcihea [16]
feels _ about _ filmo (fil fio)
feels pain/hurt in _ puntu (pun puu)
fellow learner with _ in subject _ cirkii [11]
female of species _ femdi (fem)
fertile: more - than _ for _ ferti (fet)
few/several ri [13/1]
fiction: work of - by _ fikco (fik)
field of farm/community _ fildi (fii)
fights/struggles with _ over _ kamda (kad)
final, "allth" rari [13/10]
finds evidence _ of _ sandui [11]
finds the sum of _ and _ sumdui [16]
finger/digit of _ dedjo (ded dej)
fire in/of _ fagro (fag)
fish ficli (fic)
fishes for _ ficyjanto [I]
five fe [12]
fixes _ for use/user _ by _ nakso [3]
flag/banner of _ flaci
flame of fire/device _ flami (fla)
flat area/plane through points _ pilno (pil)
flavor of _ gusto (gus gut guo)
flexible/non-rigid in movement _ norstifa [15]
flies to _ from _ via _ fleti (fle)
floats on/in _ flofu
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```
floor of _ fordi
flow/current from _ to _ kroli (kro)
flower/blossom/bloom of plant _ flora (lor loa)
fluent in language _ lenkou [11] ; more - than _ is in _lenkoumro [11]
fluorine F fluro (flu)
fly (insect) flaki
foggy fragu (rag)
fold in _ foldi (fod)
follows _ to chronicle _ kinsri [11]
fonder of _than of _ fundi [6]
food of/edible to _ tcidi (cii) [7]
fool[ish] about _ bunbo (bun buo) [8]
foot of _ fitpi (fit fip)
football: plays - with _ futbo
for a _; type [of] _ ge [5/6] (grouping operator)
for example (freemod) bea [6] [<BIEkA look at]
forces _ to do/be _ fosli (fos foi)
fork forka
form/shape/outline of _ forma (fom foa)
founds _ sacdou [14]
four fo [12]
frame of/around _ frama (ram)
francs: worth _-; default l fraki
free to do/be _ frezi (rez)
French: culture fraso; - language frasa; - person frasi
frequent: more - than _ under _ pifno (pif pio)
```

```
fresher than _ frese
friday/fifth day of week/month _ ferdei [13]
friend of _ fremi (rem) [5]
friendly/like a friend to _ remcli [5]; acts - to _ [naturally] rembiu [9]; pretends to be -
    to _ for purpose _ remkao [9]
friendship register marker fie [11/l] (<fremi)
frightens _ [unintentionally] by _ fircko [11]
front: in - of _ frena (fre)
fruit of __ fruta (fru)
fuller than_ by_ folma (flo) [5]
funny to _ in _ kamki
game played by _ plefoa [16]
garden of family/community _ gardi
gas/vapor above temperature _ vapro (vao)
German: culture dotco; - language dotca; - person dotci
gets/obtains/procures _from _for _ getsi (get gei)
girl nirli (nil)
gives _gift _ donsu (don dou)
glad to meet (each other) jmihai [4] Ea mu jmihai! How do you do? Pleased to meet
    you!
glass: made of - gliso
glass/vessel of/containing _ kupta (kup)
glove gluva
goat gotca (goa)
god/diety of people(s) _ gandi (gad)
goes to bed bedpli [9]
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goes to _ from _ over route _ godzi (god goz goi) [1]
goes with _to _from _ via _ gozkii [15]
good: better than _ for/in _ gudbi (gud gub) [2]
Good! ui [4] (Attitudinal indicator expressing pleasure.)
good deed: does - _ to _ gubduo [9]
goodbye loa [3]
governs _ garni (gar gai)
grabs/seizes _ with _ jugra (jug jua)
grain/cereal from source _ grunu (run)
grams: weighs _ -; default l gramo; - [gramol gei [12/11] (abbreviation)
grander than _ in _ grada (gra)
grass grasa (ras raa)
grateful to _ for_ garti (gat)
grayer than _ grisi
grease/fat/oil gresa (gre)
greener than _ vegri (veg) [11]
greyer than _ grisi
grinds/crushes _ into powder _ zakra
group with [number] members, -some -ra [13/8] (Predicate-forming suffix)
group made up of members _ grupa (gru) [3]
grows fond of _ fundycea [16]
grows in place _ under conditions _ rodja (roj roa)
grows/becomes big[ger] grocea [11]
guer (One who uses gu instead of pauses.) meliugu [logli]; guypli [I]
guest of _ at _ gesko [11]
guides _ to _ from _ via _ glida (gli)
```

```
guts/intestines/viscera of _ visra
gymnast at feat _ gimna
had [done] _ papa [11/6] (compound inflector)
hair of _ herfa (her)
hammer [n] mroza (roz)
hangs from _ in gravity field _ pendi (ped)
happens to _ vetci (vet vei) [9]
happy about _ hapci (hap hai) [4]
harbors/shelters _ from _ harko (har hao)
hard/difficult for _ under conditions _ nardu (nau) [8]
harder/firmer/more resistant than _ hardu (had)
harmonious: seems - with _ to _ harmo (ham)
hat/cap kapma
hates _ for doing/being _ tsodi (tso)
have [done] napa [11/6] (compound inflector)
he, she, it, they: Y (argument) de [11/7]
he, she, it, they: X (argument) da [11/7]
he, she, it, they: Z (argument) di [11/7]
he, she, it, they: Q (argument) du [11/7]
he, she, it, they: H (argument) do [11/7]
head of _ hedto (hed)
healthier than _ djela (dje jel)
hear _ over background noise _ hirti (hir) [13]
heart of karci
heavier than _ by _ in gravity-field _ tidjo (tid tio) [12]
hello loi [4]
```

helps _ to [do] _ helba (hel hea) [4]
here: vi [1]; in this area viza [11/2]; in this very spot vizi [11/2]; in this region vizu [11/2]
higher than _ by _ in gravity field _ ganta (gan gaa)
hill/mountain/prominence of landmass _ monca (mon moa)
Hindi/Hindu: culture hindo; - language: part of the - hinda; - person hindi [11]
history of _by _ hisri (his)
hits/strikes _ with _ bloda (blo)
hole/pit/depression in _ holdu (hol hou)
holy/sacred to _ sento (seo)
honest with _ about _ nesta (nes)
hook/crook gokru (gok)
hope: I hope to ae [2/5]; - [that] _ [will occur] spopa (spo) [9]
horizon seen from altitude _ above the surface of _ telbie [I]
horizontal/level in gravity field _ lelpi (lel lep)
horn of _ horno (hon)
horse horma (hor hoa)
hose/stocking/sock hozda
hospital of community _ hospi (hos)
hot: measures _ degrees in temperature melhatro [12]; -ter than _ by _ hatro (hat)
[11]
hotel/inn of community _ hotle
hour: lasts _ hours (default l) horto (hot hoo) [12]; - [horto| hei [12/11]
(abbreviation)
house hasfa (has haf haa) [3]
How are you doing? (You are how experiencing [life]?) Tu he speni?

How do you do?/Pleased to meet you! Ea mu jmihai!
how many _? ho [12/5, 6] (number word)
how many times? hona [12/7]
how-connected-to ha [6/6] (interrogative connective)
however, in contrast to what has been said buo [3] (free modifier)
human/a human being humni (hum hun) [1]
-hundred -ma [12]
hundredfold of _ hekto (hek) [12]
hundredth of _ centi (cen) [12]
hungry tcidaa [6]
hunts game/quarry _ janto (jan)
husband of _ mermeu [11]
hydrogen H hidro (hid)
hyphen ci [5/2]
I/me mi [1]
ice bisli (bis)
idea about _ experienced by thinker _ vidre (vid vie); has/hits on - _ about _ vidydui
[12] Soi vidydui! Eureka! Bingo!
identifies _ as _ nursancue [4]
if $($, if $)$ anoi [6/6]
_if and only if _ 0 [6/6]
implies/entails _ under rules _ snola (sno)
important to _for _ djipo (jip jio) [8]
improves gudcea [10]; - _ unintentionally/naturally gudcko [10]; - _ intentionally by [doing] _ gudmao [10]
impulse: be impelled to do _ puiso (pul)
in turn taa [7] (free modifier)
in addition to _ mou [10] (PA) [Do not confuse this with connective+mou more than]
in direction_from _ dirco (dir dio)
in fact, indeed, actually feu [3] (free modifier)
in manner/by method _ duo [12] (PA)
in particular piu [15] (free modifier)
inch [inca] isi [12/11] (abbreviation)
increases _ by _ in dimension _ tenri (ten) [16]
indecisive/can't decide what to do about _ disfiu [6]
industry for producing _ among _ gotri (got)
inflates _ with _ to dimension _ flati
injures _at/in _ surna (sru)
ink tinmo (tin)
inn of community _ hotle
insect sekta (sek)
inside _ nenri (nen nei) [16]
instance/event of _ po [9]
insures _ against _for fee _ surba
intend: I intend to/that _ai [2/5] (Strong intention indicator)
interacts socially with _ socli (soc) [4]
interesting to _ in feature(s) _ treci [3]; more - to _than _is to _ trecymou [5]
intermediate area/time -za [11/2]
intimacy register marker die [11/1] (<dipri)
introduction of book _ buksatci [I]
invents _for use _ vetfa (vef) [10]
investigates , looking for _ cilble [11]
invisible to/unseen _ under conditions _ nornurvia [14]
invites _ to be a guest at/for _ gesbeo [11]; - _ to go with him/her to _ hijkinbeo [13] iron ferno (fen)
is about to nafa [11/6] (compound inflector)
is it the case that...? ei [1]
island in sea _ cilda
it doesn't matter ou [2/5] (free modifier)
it, he, she, they: X (argument) da [11/7]
it, he, she, they: $Y$ (argument) de [11/7]
it, he, she, they: Z (argument) di [11/7]
it, he, she, they: $H$ (argument) do [11/7]
it, he, she, they: Q (argument) du [11/7]
Italian: - culture talno; - language talna; - person talni
item of clothing resfu (res ref)
january/first month of year _ nermei [13]
Japanese: - area ponje [11]; - culture ponjo; - language -ponja [11]; - person ponji
jelly dzeli (dze)
jewel in/of jeweled object _ djula (jul)
joined to _ at _ djine (dji)
joins _ in answering question _ put by _ repduokii [16]
jokes with _ about _ kamkytaa [7]
judges _to be _ djudi (dju) [16]
july/seventh month of year _ sermei [13]
june/sixth month of year _ sormei [13]
just before _; just now; recently pazi [11/2] (compound inflector)
just between you and me soi smikycue
justified by _; because of _ rau [10/6]
justifying _; therefore _ nurau [10/6, 3]
keeps/holds/retains _ klipu (lip)
kettle of/containing _ ketli (ket)
key to lock _ tocki
kicks _ kekti
kilogram: measures/weighs _ kilograms kilgramo [12/8]
kind to _ ckano (cka) [3]; -er to _than _is to _ ckamou [5]; as - to _ as _is to _ ckaciu [5]
kisses _on _ skesa
knife najda (naj)
knot in/between _ nanda
known also as/called one of _ bie [4/8]
known also as/called _ bi [4/4]
known/explored area for people _ nurduisia [16]
knows _ about _ djano (dja) [8]; - _ by experience spedja [8]; - _ for certain about _ sirdja [8]; - fact _ from source _ feodja [8]; - how to [do] _ duodja [8]; - how to use _ plidja [12]; - language _ leudja [8]; - what _ is (what class it belongs to) kledja [8]
knows/is acquainted with person _ peudja [5]
1 (lowercase letter) lei [3/5]
lacks scientific basis in feature _ sensycle [14]
lake of landmass _ vlako (vla)
land: parcel/expanse of - landi (lan lai)
language of people _ lengu (len leu) [10]; knows [language] _ leudja [8]; uses - _ in situation _ lenpli [14]
large/distant area/time -zu [11/2]
lasts length of time _ ckemerli [12]
later fa [1]
later: is - than _ futci (fut fuc fui)
laughs at [person/thing] _ clafo [11]
law against _ punished by _ under conditions _ among people _ lilfa (lii)
lead Pb pubmo (pum)
leads _ to _from _ via _ glida (gli)
leaf of plant _ clife (lif)
leaner/thinner than _by _ linco (lic)
learns subject _ from source _ cirna (cir cia) [1]; - _ before [learning] _ pakcia [14]; [about]_ by exploration duvcia [16]; - [about] _ by experience specia [16]; -

Loglan from _ logcirna [3]
learns/becomes knowledgeable about _from _ djacea [13]
leather/skin/hide/pelt from source _ pelpi
leaves/departs _for _ sackaa [3]
lectures _on/about _fomtaa [11]
left[-hand side] of _ ledzo (lez)
leg of _ tugle (tul tue)
lens of optical system _ lenzo (leo)
less/without _ clesi (cle) [3]
lesson in course/subject _ cirpai [13]
Let's/I suggest that we _ ea [2/4]
Let's see. Soi vefpeo
lets/permits _ do _under _ letci (let lei)
letter of alphabet _ letra (lea) [I]

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letter to _ from _ about _ lerci (ler)
level/horizontal in gravity field _ lelpi (lel lep)
lies down on _ resto (ret)
lifts _ to _ from _ in gravity-field _ lufta [13]
light from source _ on surface _ litla (lit)
lighter than _ by _ in gravity field _ latci (lat)
lightning from _ to _ ledri (led)
like/in the manner of _ lia [10/10] (modal operator/PA)
like/similar to _ in feature _ clika (cli) [5]
likely/probable: more - than _ under _ dakli (dak)
limit/boundary of _ limji (lim lij)
line: straight - through points _ clina (lin lia)
linen from source _ linbu
lion simba
lip of _ zlupi
liquid from temperature _ to _ flidu (fli)
liquor, distilled spirits likro (lio)
list of set _ in order _ lista (lis) [11]
lists elements _ of list _ listyduo [15]
liter [litro] lei [12/11] (abbreviation)
live/alive/living clivi (liv lii)
liver of _ vrano
lives; experiences/spends life (as in Ta po hapci livspe! That's living!) livspe [10]
local to _/confined to _ lokti (loi)
lock of/on _ sluko (slu)
logic for concluding _ from _ lodji (lod) [6]
```

Loglan: - area (frequented/claimed by Loglanists) logle [7]; - culture loglo [7]; -
language logla (log) [2]; learns - from _ logcirna [3]; teaches - to _ logdia
[14]; uses - on _ logduo [9]; uses - in/by doing _ logpli [4]
Loglan ("low"/slang; Logslang) damlogla [13]
Loglander/knows Loglan logli [3]; beginning - logjunti [4]
Loglanizes _; _ translates _ into Loglan logmao [2]
long: measures _- melylanga [12]; -er/taller than _ by amount _ langa (lag laa) [5]
long ago pazu [11/2] (compound inflector)
look(s)/appearance of _ simfoa [5]
looks at _ bleka (ble)
looks again at _ genble [12]
loses/misplaces _ dirlu (dru) [3]
loses hope/despairs of/that _ spodru [9]
louder than _ by _ clado (cla)
louse ladzo
loves _ cluva (clu)
lower than _ by _ in gravity field _ damni (dam)
luckier [as a circumstance] than _for _ gudcae [11]
lunar/pertains to Earth's moon Iunra (lun)
machine for use/function _ matci (mac mai)
magic: does - before _ madji (maj)
magnet[ic] magne (mag)
mails _ to _from _ by _ posta (pos)
makes _ from material(s) _ madzo (mad maz mao) [1]
male of species _ mendi (men)
man (adult male human being) mrenu (mre meu) [1]

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manages function _ in _ mande
many ro [13/1]
map of _ made by _cartu (cat) [15]
march/third month of year _ termei [13]
mark on _ distinguishing it from _ marka (mra mar)
market/mart of community _ marte (mae)
marks: worth_-; default 1 makri
married to _ merji (mer) [13]
mat tciro
match; incendiary device metca
mathematical method/procedure for deriving _ from _ (or relating _ to _) mathe [14]
mattress/pallet/pad spadi
maximum/maximal value of function _ maksi (mas)
may: I/you - oi [2/5]
may/fifth month of year _ fermei [13]
meal of food(s) _ milfa (mia) [6]
means of travel to _ from _ via _ racrie [15]
measures _ to be _ on scale _ merli (mel mei)
meat/flesh from source _ mitro (mit mio)
mechanic on vehicle(s) _ tcanakso [9]
meets _ jmite (jmi) [4]; [group] - at _ grujmi [11]; - _ socially socyjmi [11]
melon from source _melno
member/element of set/group _ djori (djo)
metal [made of -] metli (met)
meter: is _- long; default I metro (meo); - [metro] mei [12/11] (abbreviation)
method of doing _ under conditions _ durfoa [14]
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Mexican: - culture mekso [6]; - person meksi [7]
Mexican-American meksymerki [7]
microscope cmavizpae [10]
midnight of day _ midnai [12]
mild/gentle to/with _ mildo
miles: is _ - long; default l marli
milk from source _ malna (man)
mill of community _ molci
millionfold of _ megdo (meg) [12]
millionth of _ mikti (mik) [12]
mind of _ smina (min)
mineral/ore from source _ minku (miu)
minimum/minimal value of function _ minmi (mim)
minute [minta] meo [12/11] (abbreviation)
minute: lasts _ minutes (default 1) minta [12]
mixture of ingredients _ miksa (mis)
modem in system _ kotytelfo [15]
moderate: more - than _ in quality _ nurmue [15]
monday/first day of week/month _ nerdei [13]
money issued by _ cmeni (cme) [10]
monkey murki (muk)
month of year _ mensa (mea)
more: exceeds _ in property _ by _ mordu (mro mou)
morning of day _ monza (moz) [3]
most re [13/1]
most of the time rena [13/3] (quantified inflector)
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```
most places (in -) revi [13/3] (quantified inflector)
mother of _ with father _ matma (mat mam maa) [4]
motivated by ; because of _ moi [10/7]
motivating_; therefore _ numoi [10/7, 3]
motive for _ to do _ under conditions _ modvi (mov moi) [14]; - for _ to learn _
    cirmoi [16]
motor of device _ motci (moc) [8]
mountain/hill/prominence of landmass _ monca (mon moa)
mouth of _ manko (mak)
moves to _ from _ over path _ muvdo (muv mud muo)
movie [cinema] made by _ sinma (sin) [8]
much: more extreme than _ in _ mutce (mut muc mue) [3]
multitude, "manysome" rora [13/8]
muscle of _ muslo (mus)
music by composer _ muzgi (muz mui)
must: _ must _/it is necessary that _ oa [2/5] (Strong obligation indicator)
nail naldi (nal)
name of _ to/used by _ namci (nam) [7]
narrower than _ by _ janro (jar)
nation/state/polity/country of people _ poldi (pol)
natural; not caused by man natra (nar naa)
nearer than _to _ by _ snire (sni)
neater than _ nitci (nit)
necessary: it is - that __ must _ oa [2/5] (Strong obligation indicator)
necessary/needed/essential for task/process _ nerbi (neb)
neck of _ sneku (sne)
```

```
needle nidla
needs/requires _ for _ cnida (cni)
negative _ (of negative numbers) nea [13]
negative, as of numbers/charges negvo (neg)
neither _ nor _ noenoi [6/6]
nerve of _ nervi (nev)
nest of/made by
_ nensu
net netre (net)
network of members/nodes _ netclisio [15]
neutral in fight/struggle _ between _ nutra
neutrality register marker nue [11/1] (<nutra)
never in a million years na la Nirin, je la Nirmei [13] ["on the zeroth day of the zeroth
    month"]
nevertheless _: unexpected physical result _ nonukou [10/5]; - unmotivated result
    nonumoi [10/7, 5]; - unjustified result _ nonurau [10/6,5]; - unentailed result _
    nonusoa [10/8, 5]
new/unfamiliar to _ in feature _ cninu (cnu)
news of/about _ from source _ nuzvo (nuz)
next/adjacent to _ nedza (ned nea)
nickel Ni niklo
night-time of day _ natli (nat nai) [3]
nine ve [12]
nitrogen N nitro
non-English in feature _ norgleca [16]
non-Loglandic in language norlogla [14]
nonscientific norsensi [14]
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normal form of expression _ under/within system _ nomfoa [14]
north[ern part] of _ nordi (nod)
nose of _ nazbi
not: it is - the case that... no [1]
not _, but _ noe [6/6]
not _, whether _ or not nou [6/6]
not both _ and _ noanoi [6/6]
november/eleventh month of year _ nernermei [13]
now na [1] (inflector)
now: concurrent/simultaneous with _; default now nadzo (naz nao)
nowhere nivi [12/7]
nucleus of atom/cell _ nukle (nue)
number numcu (num nuu) [12]
nut/kernel of plant _ krinu
O/hey hoi [4/2] (A word used in calling someone by name.)
oak from source _ sokcu
object/thing bekti (bek) [I]
obviously, of course, clearly rea [3] (free modifier)
ocean of planet _ mursi (mur)
october/tenth month of year _ nernirmei [13]
of (indicating "possession" or general relationship) pe [4/9]
of course, clearly, obviously rea [3] (free modifier)
offers _ to _ for use/purpose _ tifru (tif tiu)
office of _ fusto (fus)
often rona [13/3] (quantified inflector)
Oh. uu [4] (Attitudinal indicator expressing sorrow or regret.)
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oil/grease/fat gresa (gre)
older than _ by amount _ laldo (lal lao) [3]
one ne [12]
_ only if _ noa [6/6]
open [adj] kapni (kap)
operates _ with goal _ bapra
operating system of computer _ baprysio [15]
ophthalmolgist mekykiu [I]
opines/thinks _ about _ jupni (jui)
opposes _ in matter _ pozfa (poz) [14]
opposite from _ in quality _ bufpo (buf) [14]
_ or _, but not both onoi [6/6]
orange: more - than _ norji
orders _ from _ at price _ furvemcue [6]
orders _ to do _ korji (koj koi)
ordinary:more - than _ in _ danri
organizes _ into _for task/function _ ganli (gal)
origin/beginning of _ satci (sac)
other than/not the same as _ notbi (not noi) [8]
out[side of] _ zvoto (zvo)
oven of _ zavno (zan)
over _ in gravity field _ tovru (tov)
over there vu [1]
overlooks/is blind to _ in situation _ norvia [14]
owes _ to _for _ djeta (jet)
owns _ under law/custom _ ponsu (pon pou) [7]
```

package/bundle of/containing _ badlo (bad)
pad/cushion/pillow padzi
page of document _ pidri
paint: quantity of - pinti (pin) [10]
pan; a handled cooking vessel panba (pan)
panicked by _ panki
pantograph, a mechanism for tracing pictures kopypae [15]
pants/trousers pantu
paper papre (pre)
parallel to _ pirle (pir pie)
parent of _ with co-parent _ penre (pee)
parking lot of area/facility _ tcastosia [6]
part of whole _ parti (par pai)
parties with _ about/for _ hapsocli [11]
passport issued to _by _for _ paspo
past: in the - of/before _; default now pasko (pas pak pao)
paste/glue/cement for materials _ pasti
path to _ from _ rutma (rut rua)
pause in speech/discourse _ taksai [I]
pauses/waits for _ before doing _ pazda (paz)
pays _ to _for goods/service _ petci (pec pei)
pea from _ pizdo
peace: at - with _ pismi (pis)
pear from source _ persa
pen penbi
pencil pinsi

```
penetrates/passes through _ in direction _ tceru (tce)
penis of _ pingu
pensive/thoughtfully silent pensai [14]
people/folk of place/country _ piplo (pip)
perfect by standard _ purfe (puf pue)
perhaps ii [2/5]
person pernu (per peu) [10]
peseta: worth _ -; default 1 pesta
peso: worth _ -; default l pesro
physical/concrete (not abstract) fizdi (fiz fid) [15]
physically causing _; therefore _ nukou [10/3]
picture of _ by _ tcure (tcu) [3]
piece of _ pisku (piu)
pig porju (poj)
pin pinda (pid)
place/location of _ sitfa [11] (sit sif sia)
plan for doing _ designed by _ danci (dan dal) [I]
plane/flat area through points _ pilno (pil)
plant herba (heb)
plate/dish of food _ plata (pla)
plays at/with _ pleci (ple)
plays billiards with _ bilra
please eo [2/2, 3]
Pleased to meet you!/How do you do? Ea mu jmihai!
pleases _ by _ pluci (plu)
plow plado (lad)
```

plus [+] pio [12]pocket of garment _ packe
poem/verse by _ versa (ves)
point of_ penta (pet pea)
point [decimal -] pi [13/6,7]
poison[ous] to _ vendu (ven veu)
police officer/works for the police of area _ polsi [13]
polish palci
politeness register marker (<ckano) kae [11/1]
poorer than _in _ purcu
positive [numbers/charges] pozvo (pov)
possible under conditions _ blicu (bli)
pot; a deep cooking/storage vessel patpe (pat)
potato from source _ palto
pound: weighs _ -; default 1 pundo
pound: worth $£_{-}$; default 1 pandi
powder from source _ pudru (pud)
power: has -/is lord over _ porli (poi) [13]
practices _ cirduo [3]
precise/exacting for _ in area _ cildrecni [16]
prefers _ to _fundi [6]
prepares for _ brecea [I]
present at _ hijra (hij hia) [8]
pretends/plays that _ is true plekri [12]
prevents _ from doing _ litnu (liu)
price of _ to _ from seller _ prati (rat) [6]
printer (computer[ized]) in system _ capmai [15]
printing press (old-fashioned with movable type) capypae [15]
prints _on _ capri (cap)
prisoner of _for act/state _ preni
private to _ prizi (riz)
probable/likely: more - than _ under _ dakli (dak)
probably io [2/5]
problem to _ in doing task _ nable (nab)
process continuing through stages _ prase (pra)
produces _ by process _ proju (pro)
product of _ multiplied by _ jalti (jai)
professor of subject _ at institution _ gandia [11]
profit to _from _ prali (ral)
program written by _for/to do _ on system _ proga (rog)
programmer/writes program _ on computer/system _ rogduo [10]
promises/agrees to [do]_to/for_durtoi [11]
pronounces _ according to language/dialect _ soncue [I]
proposes action _ to _ sange (sag)
prose work by _ proza
protests _ to _ by doing/saying _ prutu (ruu)
public: more - among _ than _ publi (pub)
pulls/draws _ to _from _ cpula (cpu)
pumps fluid _ from _ into _ dampa
punishes _for _by doing _ kasfa (kaf)
purer/more uniform/homogeneous than _ punfo
purple: more - than _ purpu (pup)

```
pushes/propels _ to _ from _ via _ pucto (puc puo)
puts _ to bed bedyduo [9]
puts/places/sets _ on/at _ setfa (sea)
quality of _ pu [9]
quality/feature/property: has - _ katli (kat kai)
quantity of _ on scale _ canli (cna cai)
quarrels with _ over/about _ roirtargo [14]
question about _ posed by _ to _ kenti (ken) [5]
quieter than _ santi (sai) [9]
quotation mark delimiting quote _ nurcuesaa [14]
quotation mark: left ["] li [3/12]; right ["] lu [3/12]
radio receiver in network _ radjo
rail/railing/bar trelu (rel reu)
rained on by _ crina (cri) [4]
ranges/extends over _ ranjo
rat ratcu (rau)
ratio/quotient of _ divided by _ brato (rao)
ray/beam/radiation from source _ kreni (kre)
reads _ from/in/on _(a book, sign, etc.) ridle (rid) [1]; - _ aloud to _ takridle [9]
ready/prepared for _ bredi (bre)
reason for to do _ under conditions _ raznu (raz) [14]
recently; just before _; just now pazi [11/2] (compound inflector)
recognizes/knows quality _ in _ kaidja [11]
recognizes/remembers person _ perdri [11]
record of _ on medium _ rirda (rir)
redder than _ redro (red) [2]
```

regular: more -/periodic than _ rilri (rii)
related to _ by relation _ kunci (kuc kui) [7]
relevant: makes _- to _ pertymao [12]
religion of people(s) _ lidji (lid)
remembers/recalls _ about _ driki (dri)
remembers/recognizes person _ perdri [11]
repeats _/says _ over to _ gencue [2]
represents _ in matter _ dilri (dil)
requests/asks _of/from _ begco (beg beo)
respect register marker rie [11/1] (<rispe)
respects _ for doing/being _ rispe (ris rie)
responds/reacts _ to _ under conditions _ ponda (poa)
responsible for _ to _ daspa (das)
restaurant of area _ resra [6]
restrains _ from doing _ litnu (liu)
rests/reposes/lies down on _ resto (ret)
result of dividing _ by _ nurjai [12]
retrovirus retrroviri [I]
returns to _from _ fangoi [8]
reverse of /in - order from _ fanve (fan)
rewards _ for _ with _ barda [16]
rhythm of _rinta (rit)
rice from source _rismi
richer than _in _ fulri
right of _/-hand side of _ ritco (ric)
ring/band on/around _ rinje (rin)
riper than _ rapcu (rap)
river of landmass _ vrici (vri)
road between points _ via _ rodlu
rock/stone from source _ troku (tro)
roll/roller/cylinder rolgu (rol)
Roman person romni
roof of _ trufa (ruf)
room/chamber of/in _ kruma (kru)
root of plant _ ginru (gin giu)
rose from source rozme
rotten: more - than _ ranta (ran)
rougher/more abrasive than _ rofsu (rof ros)
round rande (rad rae)
route to _from _ rutma (rut rua)
ruble: worth _-; default 1 rubli
rubs _ with _ satro (sat)
rule prescribing _ to _ under _ rulni (rul rui)
rules over _ garni (gar gai)
runs to _ from _over path _ prano
rupee: worth _ -; default 1 rulpi
Russian: culture rusko; - language ruska; - person ruski
sack/bag/pouch of/containing _ sakli (sak)
sad/sorry about _ kecri (kec kei)
said _. hue [11/16] (Tells who said the preceding sentence(s).)
sail of vessel _ salfa (saf)
salt from source _ solte (sot)

```
same [thing] as _ samto (sam sao) [16]
sand from source _ sanca (sna)
saturday/sixth day of week/month _ sordei [13]
says _ to _ cutse (cus cue) [2]
scale measuring _ among _ skalu (ska)
school of community _ ckela (kea) [3]
scientific instrument for _ sesrie [15]
scientific fact/principle of/about _ sensi (ses)
scientist/contributor to science _ sesmao [10]
Scottish: - culture skaco; - language/dialect skaca; - person skaci
scratches _ kraju (raj)
screw skori (sko)
sea of planet _ mursi (mur)
second: lasts _ -; default 1 sekmi; - [sekmi] sei [12/11] (abbreviation)
secret kept from _ by _ smike (smi)
secretary of _ sekre
secure/safe from _ curca (cur)
seed of plant _ sidza (siz)
seemingly, it seems sii [4] (free modifier)
seems to be _ to _ under conditions _ simci (sim sii)
sees _ against background _ vizka (viz vik via) [I]
self[-image] of _ selji (sel)
sells _ to _for price _ vedma (ved vem vea) [7]
sends/despatches _ to _from _.via route _ sundi (sui)
senses stimulus _ under _ sanse (sas sae)
sentence/statement about _ in language _ steti (ste) [11]
```

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separate from _ narti
september/ninth month of year _ vermei [13]
serious/grave about _ srisu (riu)
serves _ by doing _ surva (suv) [7]
set/group of elements _ setci (set sei)
seven se [12]
sews/stitches _to _ djoso (jos)
sex: behaves sexually toward _ sekci (sec)
shade/shadow made by _ from light source _ cedzu (ced)
shakes/oscillates/vibrates at rate _ and amplitude _ siltu (sil siu)
shall fa [1]
shares _ out among _ petri
sharper/more keen than _ kinku (kik)
she, he, it, they: Y (argument) de [11/7]
she, he, it, they: Z (argument) di [11/7]
she, he, it, they: X (argument) da [11/7]
she, he, it, they: H (argument) do [11/7]
she, he, it, they: Q (argument) du [11/7]
shears/scissors cirzo (cio)
sheep berci
shelf of/containing _ celna
shell [chassis] of _ konce [8]
shelters/harbors _ from _ harko (har hao)
shirt; upper-body garment curta
shocked by _ tcaku (cak)
shoe cutci (cuc)
```

shorter than _ by amount _ corta (cor coa) [5]
should: I/you - oe [2/5]
shovel [ n ] cavle (cav)
shows [person] _ [thing] _ blemao [15]
sibling of _ through parents _ sibli (sib)
sick/ill with _ from vector _ malbi (mal)
side of _ bounded by edges _ spali (pal)
sign meaning _ to _ and prompting behavior _ under circumstances _ sanpa (san saa) [3]
silk from _ colku (col)
similar to/like _ in feature _ clika (cli) [5]
simpler than _in respect _ sapla (sap)
simply put saa [5] (free modifier)
simultaneous with _; default now nadzo (naz nao)
simultaneously; at the very moment that _ nazi [12]
sings _ to _ gritu (gri) [5]
sister of _ with parents _ sorme (som soe) [7]
site/place/location of _ sitfa [11] (sit sif sia)
sits [down] on _ skitu (ski)
six so [12]
ski skizo (kiz)
skin/rind/outer covering of _ skapi
skirt skara
skull of _ tosku
sky at/over place _ skati
slides/slips on _ clidu

```
slower than_ by _ slano (sla)
small (as - as _ is) cmaciu [11]
small/immediate area/time -zi [11/2]
smaller than _ by _ cmalo (cma)
smashes _ into pulp _ kraco
smell/odor/aroma emitted by _ sutme (sut)
smiles/grins at _ crano (cra)
smoke from source _ smano (sma)
smokes _ smarue [I]
smoother than _ by _ smupi (smu)
snake/serpent marpi
sneezes tsani (tsa)
snow snice (nic)
soap dzaso (zas)
social-science: a fact about - socysensi [3]
sodium Na nadro (nad)
sofa sofha
softer/more malleable than _ molro (mol)
solar solra (sol)
soldier of unit/army _ solda (sod)
solid below temperature & pressure _ saldi (sal)
-some, is a group with - members -ra [13/8] (Predicate-forming suffix)
something h bu [1] (non-designating variable)
something y be [l] (non-designating variable)
something z bo [1] (non-designating variable)
something x ba [1] (non-designating variable)
```

```
sometime (at least once) suna [13/3] (quantified inflector)
somewhere (in at least one place) suva [13/3] (quantified inflector)
son of parent(s) _ sunho (sun suo)
sorry to bother _ by doing fatcou [11] soi fatcou = excuse me
sound/noise emitted by _ sonda (son soa)
soup/stew of ingredients _ supta (sup)
sour: more - than _ to _ sarni (sar)
south[ern part] of _ surdi (sud)
space/volume occupied by _ spasi (spa)
Spaniard spani
Spanish: culture spano;-language spana [7]
special/specific to _ out of group _ spebi (peb) [14]
species of genus _ speci
speed: has a measured - of _ melkukra [13]
spends _ [time]; experiences _ speni (spe) [4] Tu he speni? How are you doing?
    (You are how experiencing [life]?)
spirit/ghost of _ seen by _ spicu (spi)
spit/spittle of _ spetu
sponge penja (pej)
spoon sputa (put)
spreads/expands over/into _ kuspo
spring; elastic device spori
square with vertices _ kurfa (kur)
stage of hall/auditorium/theater _ stadi (sta)
stair[s]of structure _ stire (tir tie)
stalk/stem/trunk of _ staga
```

stamp/die for making an imprint of _ on _ caprie [15]
stands up/on _ stali (tai)
star of galaxy _ tarci (tar)
start/source/origin/beginning of _ satci (sac)
station of transport system _ stana
stays at _ stolo (sto) [3]
steak bifte
steel: a quantity of/made of - gasti
steeper than _by _ slopu (slo)
steps on/in _ buste (bus bue)
stick of/made of _ stuka
sticks to _ gomni (gom)
stiffer than _ in direction _ stifa [15]
stomach/abdomen of _ beldu
stops/ceases [doing] _ stise (sti) [9]
store/deposit/reserve of _ sordi (sro)
story about _ as told by _ stuci (stu); - of _'s meeting each other nerjmistu [11]
strange/odd to _ in features _ gutra (gur)
street of _ trida
stretches to _from _ tetcu (tec teu)
stretchy: more - than _ lasti (las)
strokes _ with _ satro (sat)
stronger than _by _forli (fol)
structure of _ truke (tru)
student of _ at institution _ stude
stuff/matter/material ctifu (cti)

```
subsidizes/underwrites _ in undertaking _ with amount _ cmehea [16]
succeeds in _ by effort _ suksi (sku)
such that jao [16/6] (predicating); jio [16/5] (identifying)
sudden/abrupt: seems - to _ sudna
sufficient/enough for use/purpose _ tsufi (tsu)
sugar sakta
suggests action _ to _ sange (sag)
sulfur S sulfo
sum/total of _plus _ sumji (sum)
summer of year_ cimra (cim) [11]
sunday/seventh day of week/month _ serdei [13]
superstitious/opposite in quality from science in feature _ bufsensi [14]
supports/maintains _ with/by _ djupo (jup juo)
suppose that eu [12] (free modifier; sign of a contrary-to-fact supposition)
surprises/startles _ by [doing] _ stari [15]
sweeter than _ to _ sliti (sli)
swelling/bump at/in/on_from _ sulba (sul)
swims to _ from _ via _ sucmi
system among elements _ sisto (sis sio) [8]
table tobme (tob toe)
tail of _ tilba
takes _ away from _ tokna (toa)
talks to _ about _ takna (tak taa) [1]
taste of _ gusto (gus gut guo)
tax/tariff on _ paid by _ to _ cteki (cte)
taxi/cab/taxicab taksi
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```
tea from source _ tcati
teach each other subject(s) _ batyditca [8]
teacher's aide for teacher _ in subject/class _ dichea [11]
teaches subject _ to _ ditca (dic dia) [1]; - Loglan to _ logdia [14]
teaching method of _ in class _ dicfoa [14]
tears down vehicle _ (auto mechanics term) bufbalci [13]
telephone (uses a -) telfypli [9]
telephone/phone receiver in network _ telfo
telephones _ telfyduo [9]
television/TV receiver in network _ telvi
tells/gives the age of _ to _ lalcue [13]
temple of religion _ tepli (tep)
ten-thousandfold of _ mirdo (mir) [12]
tenfold of _dekto (dek) [12]
tent of _ tenta
tenth of _ decti (dec) [12]
terrestrial/earthly terla (tel)
test for _ among _ pruci (pru)
testicle of _ testi
textbook about subject _ by _ dicbukcu [3]
-th member of group _ -ri [13/10] (ordinal suffix)
thankful to _for _ garti (gat)
thanks[!] sia [3] (free modifier)
thanks _for_ gatcue [11]
that ja [16/2] (predicating)
that remark/statement toa [2]
```

that situation (the one that has been mentioned) tao [3]
that/those one(s) ta [1]
the class of all things that appear to [be] _ lea [11/11] (descriptor)
the former (ex-) _ lepa [3/8] (tensed descriptor)
the future/upcoming _ lefa [3/8] (tensed descriptor)
the number _ lio [12/9] (descriptor)
the one I mean called _ la [4/1] (descriptor)
the one I mean that appears to be an instance of the mass of all _ lo [8] (descriptor)
the one I mean which seems to _ le [3/2] (descriptor)
the one person or thing uniquely describable as actually _ laa [11/13] (descriptor)
the one with/characterized by _ lae [11/4] (descriptor)
the set composed of members _ lau [...lau] [11/12] (descriptor)
the set of things that appear to [be] _ leu [11/12] (descriptor)
the sign/symbol of _; the meaning of _ lue [11/8] (descriptor)
the theoretical average member of the class/set of things that appear to [be] _ loe [11/10] (descriptor)
the [Loglan] word _ liu [6;9/12] (a combination of li and lu)
theater/theatre of community _ tatro (tat)
there (by you) va [1]
therefore _: motivating_ numoi [10/7, 3]; justifying _ nurau [10/6, 3]; physically causing _ nukou [10/3]
they, he, she, it: H (argument) do [11/7]
they, he, she, it: X (argument) da [11/7]
they, he, she, it: Q (argument) du [11/7]
they, he, she, it: Y (argument) de [11/7]
they, he, she, it: Z (argument) di [11/7]

```
thicker than _ by _ totnu (tot)
thinks about _ penso (pen peo) [3]
thinks up _ for purpose _ vefpeo [12] Soi vefpeo Let's see.
thinks logically about _ lodpeo [14]
thinner/more slender than _ by _ linco (lic)
thirteenth in series _ neteri [13]
this ("the-here") _ levi [3/8]
this remark/statement toi [2]
this/these one(s) ti [l]
thought-form, a way of thinking used by _ under conditions _ penfoa [16]
-thousand -mo [12]
thousandfold of _ kilto (kil) [12]
thousandth of _ milti (mil) [12]
thread/filament of substance _ citre (cit cie)
three te [12]
three-dollar item terdalra [12]
threesome, trio tera [13/8]
throat/gullet of _ goltu
throws/propels _ to/at/toward _ renro (ren reo)
thumb of _ pudja
thursday/fourth day of week/month _ fordei [13]
ticket to _ from _ on _ for price _ ketpi (kep) [16]
tiger tigra
tight on _ djitu (jit jiu)
tile kadta
time/interval from _ to _ ckemo (cke keo)
```

```
times/multiplied by _ tia [12]
tin Sn stino
tired from _ tarle (tal tae) [4]
To what end? What good would it do? Numoihu? [10] (free modifier)
tobacco tabko
toe of djoto
tomato from source _ tomto
tongue of _ tongu
too much in feature _ zavmoutsu [13]
tool of communication used by _ under conditions _ hirtakrie [15]
tool for thought used by _ under conditions _ penrie [16]
tool/implement/instrument for doing _ trime (rim rie)
tooth of _ dante (dat)
topic of thought to _ nurpeo [16]
touches _ with _ totco (toc tco)
trades _ for _ with _ batmi (bat) [7]
train of system _ trena (tre)
translates material _ from language _ to language _ lenbatmi [I]
transmits/relays _ to _ from _ getsui [8]
transports _ to _ from _ tcaberti [3]
trash from process _ festi (fes)
travels to _ from _ via route _ traci (rac)
tray of/containing _ trali
tree tricu (tri)
tricks/dupes _ about _ by _ dupma (dup)
tries/attempts to do/attain _ by _ trati (rai)
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trillionth of _ pikti (pik) [12]
trots to _ from _ troti
troubles/annoys _ by [doing] _ fatru (fat fau) [4]
troubles/bothers to [do] _ despite effort/annoyance _ selfatru [I]
trousers pantu
true by rule/standard _ tradu (tra)
tube/pipe tubli (tub)
tuesday/second day of week/month _ tordei [13]
tulip from source _ tulpi
turns/rotates/revolves around internal axis _ trana (tan)
tutors _ in subject _ cirhea [6]
twice tona [12/7] (two-now) (quantified inflector)
twists under load _ torni (ton)
two to [12]
umbrella sanla
understands the meaning of sign/symbol_ saadja [2]; - system/person_siodja [8]
underwrites/subsidizes _ in undertaking _ with amount _ cmehea [16]
unicorn hornyhoa [11]
uniform: more -/homogeneous than_punfo
unit/degree of/on scale _ dugri
unseen/invisible to _ under conditions _ nornurvia [14]
upright in gravity field _ vreti (vre)
urine of _ pinca (pic)
used by _ for purpose _ nurpli [13]
useless for purpose _to user _ furplicle [10]
uses Loglan: - on _ logduo [9]; - in/by doing _ logpli [4]
```

```
uses/employs/utilizes _ for _ plizo (pli)
vaccine against disease _ in _ vaksi
vagina/vulva of _ konbi
value: has a - of _ to _ for use _ vatlu (vat vau) [10]
vaults/jumps over/across _ valti (val vai)
vertical/upright in gravity field _ vreti (vre)
very: more extreme than _ in _ mutce (mut muc mue) [3]
vessel/container of/containing _ veslo (vel veo)
view/image of _ from viewpoint/perspective _ vidju (vij viu)
violent in response to _ valna (van vaa)
virtual in function _ in system/conditions _ duodza [15]
visible to _ against background _ nurvia [6]
visits [person(s)] _ socgoi [7]
voice of individual _ volsi (vol voi)
volt: has _ - e.m.f.; default l volta
volume/space occupied by _ spasi (spa)
vomits _/throws _up on _ vamtu
waits on diner _ with food _ tobsua [7]
walks to _from _ via _ dzoru (dzo) [9]
wall of/around _ tcali (cal)
want: I want to ao [2/5]; - _ for purpose _ danza (daz daa) [9]
war: at - with _over _ dorja (dor)
warns/cautions _ of/about danger _ kurni (kun)
was about to pafa [11/6] (compound inflector)
washes _ in _ vlaci
waste from process _ festi (fes)
```

watches/observes _do _ katca
water cutri (cut cui)
wave in medium _ valpu (vap)
wax from source _ lakse (lak)
we (mi ze do [ $H$ and I]) mio [11/15]
we (mi ze tu ze da [you and $X$ and ]) mua [11/15]
we (mi ze da [ $X$ and $]$ ) mia [11/15]
we (mi ze tu ze di [you and $Z$ and I]) mui [11/15]
we (mi ze du [ $Q$ and $\cap$ ) miu [11/15]
we (mi ze de [ $Y$ and I]) mie [11/15]
we (mi ze tu ze do [you and $H$ and I]) muo [11/15]
we (mi ze di [ $Z$ and I]) mii [11/15]
we (mi ze tu ze de [you and $Y$ and ]) mue [11/15]
we (mi ze tu [you and $1 / \mathrm{me}$ ]) mu [1]
we (mi ze tu ze du [you and Q and $/$ ]) muu [11/15]
weaker/more feeble than _ by _ fibru (fib fiu)
weapon for use _ tarmu (tam tau)
wears clothing _ respli [11]
weather: an instance of - in place/region _ tetri (tet)
wednesday/third day of week/month _ terdei [13]
week of month/year _ likta (lik)
weighs/measures-in-heaviness _ in gravity-field _ meltidjo [12/10]
well-behaved: - [intentionally] for purpose _ gudkao [9]; - [naturally] gudbiu [9]
west of _/a -ern part of _ lusta (lus)
wet/moist with _ cetlo (cet ceo)
what? hu [3] (interrogative argument)

```
what: is/does -? he [1]
wheat from source _ ritma
wheel of device/vehicle _ krilu
when? at what time? nahu [3/4]
where? at what place? vihu [3/4]
whereabouts? near where? vahu [3/4]
_ whether _ or not u [6/6]
whether _ or not, _ nuu [6/6]
whether _ or not, is not _ nuunoi [6/6]
Which _? Who? What is another name for _? ie [4/3]
which/that is _ go [5/7] (inversion operator)
while [doing], during nia [I] (PA)
whip/lash/switch [n] bitce
whistle [n] caslo (cas)
whiter than _ blabi (lab)
Who knows? iu [2/5]
who/which ja [16/2] (predicating); ji [16/1] (identifying)
who/which is one of jae [16/4] (predicating); jie [16/3] (identifying)
wider than _ by _ kubra (kub)
will fa [1] (future inflector); I will_ ai [2/5] (Strong intention indicator)
will be about to fafa [11/6] (compound inflector)
will have [done] fapa [11/6] (compound inflector)
window of _ cundo (cun cuo)
wine from source _ vinjo (vin)
wing of _ tcela
wins/gains _from/over _ gancu (gac gau)
```

```
winter of year _ dotra (dot)
wire tirca (tic)
wiser than _ about _ sadji (sad saj) [5]
with the help of _ hea [10] (PA)
with what help? you and whose army? heahu? [10] (free modifier)
without/less _ clesi (cle) [3]
woman fumna (fum fua) [1]
wood/lumber from source _ mubre (mub)
wool from source _ lunli (lul)
word for _ in language _ purda (pur pua)
workplace of _ for work _ tursia [13]
works on/at _ with goal _ turka (tur tua)
worm kurma
worse than _for _ zavlo (zav zal zao)
worsen _ [unintentionally] zavcko [10]
writes _ on surface _ srite (sri)
X-ray from source _ Xaiykre [I]
year [nirne] nei [12/11] (abbreviation)
year: lasts _ years; is _ years old (default 1) nirne (nin nie) [13]
yellower than _ pelto
yonder vu [1]
you tu [1]
you and whose army? with what help? heahu? [10] (free modifier)
you and Y (tu ze de) tue [11/15]
you and X (tu ze da) tua [11/15]
you and Q (tu ze du) tuu [11/15]
```

```
you and H (tu ze do) tuo [11/15]
you and Z (tu ze di) tui [11/15]
younger/physically newer than _ by _ junti (jun) [5]
zero ni [12]
zinc }\textrm{Zn}\mathrm{ zinko
```


## Affix List

This list can be used to take complexes apart. Pick complexes from the vocabularies at random and try to figure out their underlying metaphor. More importantly, if you encounter an unknown complex elsewhere (in a Logletter, say), discovering the complex's metaphor should help you figure out what the word means.

| baa bac | barma <br> balci | arm of <br> builder_from materials |
| :---: | :---: | :---: |
| bad | badlo | bundle/package of/containing _ |
| bae | bande | beyond _ from _ on route/path _ by distance _ |
| bai | balci | builder _ from materials _ |
| baj | badjo | branch/bough/limb of _ |
| bak | bakto | bucket/pail of/containing _ |
| bal | balpi | balanced under forces |
| bam | balma | ball/sphere |
| ban | bande | beyond _ from _ on route/path _ by distance _ |
| bao | bakso | box |
| bap | batpi | bottle of/containing _ |
| bar | barma | arm of |
| bed | bedpu | bed |
| beg | begco | requests/asks _of/from _ |
| bei | berti | carries/bears _ to _ from _ |
| bek | bekti | object/thing |
| bel | bekli | bell producing sound/note _ |
| ben | bendu | band/orchestra of players _ |


| beo <br> ber | begco <br> berti | requests/asks _of/from carries/bears _ to _ from _ |
| :---: | :---: | :---: |
| bet | betcu | more bent/crooked than |
| beu | bendu | band/orchestra of players _ |
| bia | bitsa | between_ and _ |
| bic | bilca | a member of the armed forces of _ |
| bid | bivdu | behaves _ under |
| bie | bidje | edge of _ between _ |
| bif | bifci | bee |
| bii | bilti | more beautiful than _ to _ |
| bil | bilti | more beautiful than _ to _ |
| bio | bindo | bean from |
| bis | bisli | ice |
| bit | bitsa | between _ and _ |
| biu | bivdu | behaves _ under |
| biv | bivdu | behaves _ under _ |
| bla | blada | blade of tool/weapon _ |
| ble | bleka | looks at _ |
| bli | blicu | possible under conditions _ |
| blo | bloda | hits/strikes _ with _ |
| blu | bludi | blood of organism _ |
| boi | botci | boy |
| bon | bongu | bone of _ |
| bor | borku | bow [for arrows] |
| bot | botsu | boat |
| bou | botsu | boat |


| bra bre | brana bredi | born to mother ready/prepared for |
| :---: | :---: | :---: |
| bri | brize | breeze/wind from direction |
| bro | broko | breaks/fractures into pieces _ |
| buc | bucto | bush/brush of _ |
| bue | buste | steps on/in |
| buf | bufpo | opposite from _ in quality _ |
| bui | bulbi | bulbous root of plant/species |
| buj | bulju | boils at temperature _ |
| buk | bukcu | book about _ by author |
| bul | bulbi | bulbous root of plant/species |
| bun | bunbo | fool[ish] about |
| buo | bunbo | fool[ish] about |
| bus | buste | steps on/in |
| buu | bukcu | book about _ by author |
| cab | cabro | burns at temperature |
| cae | tcane | chance/random under conditions |
| cai | canli | amount/quantity of _ on scale _ |
| cak | tcaku | shocked by _ |
| cal | tcali | wall of/around |
| can | tcane | chance/random under conditions _ |
| cao | cabro | burns at temperature _ |
| cap | capri | prints _ on _ |
| car | carbo | carbon C |
| cas | caslo | whistle [ n ] |
| cat | cartu | map of _made by |

```
cav cavle shovel [n]
cea cenja becomes _ from _
ced cedzu shade/shadow made by _ from light source _
cef cefli chief/boss/head of _ for activity _
cei cersi chair
cej cenja becomes _from _
cel celhu cell of organism _
ceo cetlo wet/moist with _
cer cersi chair
cet cetlo wet/moist with _
cia
cid
cie
cii
cik
cil
cim
cin
cavle shovel [ n ]
cenja becomes _from _
cedzu shade/shadow made by _ from light source _
cefli chief/boss/head of _ for activity _
cersi chair
cenja becomes _from _
celhu cell of organism _
cetlo wet/moist with
cersi chair
cetlo wet/moist with _
cirna learns subject _ from source _
cidja awake [adj]
citre thread/filament of substance _
tcidi food of/edible to
ciktu equals _in/on dimension _
citlu detail/particular of _
cimra summer of year _
cinta baby/infant of
cirzo shears/scissors
cirna learns subject _ from source _
citre thread/filament of substance _
ciktu equals _in/on dimension _
ckemo time/interval from _ to _
ckozu causes _ under circumstances _
clado louder than _by _
clesi less/without _
```

| cli clo | clika cloro | like/similar to _ in feature _ chlorine Cl |
| :---: | :---: | :---: |
| clu | cluva | loves _ |
| cma | cmalo | smaller than _ by _ |
| cme | cmeni | money issued by _ |
| cmi | cmiza | amused by _ |
| cna | canli | amount/quantity of _ on scale _ |
| cni | cnida | needs/requires _ for _ |
| cnu | cninu | new/unfamiliar to _ in feature |
| coa | corta | shorter than _ by amount _ |
| col | colku | silk from |
| com | comtu | ashamed of doing/being _ |
| con | condi | deeper than _ by _ |
| cor | corta | shorter than _ by amount |
| cot | comtu | ashamed of doing/being |
| cou | comtu | ashamed of doing/being _ |
| cpu | cpula | pulls/draws _ to _from _ |
| cra | crano | smiles/grins at _ |
| cri | crina | rained on by _ |
| cte | cteki | tax/tariff on _ paid by _ to |
| cti | ctifu | stuff/matter/material |
| ctu | ctuda | feces/stool of _ |
| cuc | cutci | shoe |
| cue | cutse | says _ to _ |
| cui | cutri | an amount/expanse of water |
| cun | cundo | window of |


| cuo cup | cundo cupro | window of _ copper Cu |
| :---: | :---: | :---: |
| cur | curca | secure/safe from _ |
| cus | cutse | says _ to _ |
| cut | cutri | an amount/expanse of water |
| daa | danza | wants _ for purpose _ |
| dai | danci | plan for doing _ designed by _ |
| dak | dakli | more likely/probable than _ under |
| dam | damni | lower than _ by _ in gravity field |
| dan | danci | plan for doing _ designed by _ |
| dao | darto | door of/in |
| dap | dapli | answers/replies _ to questioner _ |
| dar | darli | farther from _ than _ is by distance _ |
| das | daspa | responsible for _ to |
| dat | dante | tooth of _ |
| daz | danza | wants _ for purpose _ |
| dea | detra | daughter of _ |
| ded | dedjo | finger/digit of _ |
| dei | denli | daytime of day _ |
| dej | dedjo | finger/digit of _ |
| del | denli | daytime of day _ |
| den | denro | dangerous to _ under conditions |
| der | dertu | dirt/soil/earth from/of _ |
| det | detra | daughter of _ |
| deu | dertu | dirt/soil/earth from/of _ |
| dia | ditca | teaches subject _ to _ |


| dic dii | ditca disri | teaches subject _ to _ <br> decides to [do] _ about |
| :---: | :---: | :---: |
| dil | dilri | represents _ in matter _ |
| dio | dirco | in direction _ from _ |
| dip | dipri | dear/precious to _ |
| dir | dirco | in direction _ from |
| dis | disri | decides to [do] _ about _ |
| dit | ditka | bites _on/at |
| diu | dislu | discusses _ with |
| dja | djano | knows _ about _ |
| dje | djela | healthier than |
| dji | djine | connected/joined to _ at _ |
| djo | djori | member/element of set/group _ |
| dju | djudi | judges _ to be _ |
| don | donsu | gives _ gift _ |
| dor | dorja | at war with _ over _ |
| dot | dotra | winter of year _ |
| dou | donsu | gives _ gift _ |
| dra | drani | drier than _ by |
| dre | dreti | correct by standard _ |
| dri | driki | remembers/recalls _ about _ |
| dru | dirlu | loses/misplaces _ |
| dua | durna | adornment on _ |
| dui | duvri | discovers _ about _ |
| dun | durna | adornment on _ |
| duo | durzo | does _ to _ |



| fem fen | femdi <br> ferno | female of species iron Fe |
| :---: | :---: | :---: |
| feo | fekto | fact/observation about _.. observed by _ |
| fer | fe | five |
| fes | festi | trash/waste from process _ |
| fet | ferti | more fertile than _ for |
| fia | firpa | afraid of/that |
| flb | fibru | weaker/more feeble than _ by _ |
| fic | ficli | fish |
| fid | fizdi | physical/concrete not abstract |
| fii | fildi | field of farm/community _ |
| fik | fikco | work of fiction by _ |
| fil | filmo | feels _ about _ |
| fio | filmo | feels _ about _ |
| fip | fitpi | foot of _ |
| fir | firpa | afraid of/that _ |
| fit | fitpi | foot of |
| fiu | fibru | weaker/more feeble than_by _ |
| fiz | fizdi | physical/concrete not abstract |
| fla | flami | flame of fire/device _ |
| fle | fleti | flies to _ from _ via _ |
| fli | flidu | liquid from temperature _ to _ |
| flo | folma | fuller than _ by_ |
| flu | fluro | fluorine F |
| foa | forma | form/shape/outine of _ |
| fod | foldi | foid in _ |


| foi fol | fosli forli | compels/forces _ to do/be _ stronger than _ by _ |
| :---: | :---: | :---: |
| fom | forma | form/shape/outline of _ |
| for | fo | four |
| fos | fosli | compels/forces _ to do/be _ |
| fra | farfu | father of _ through mother |
| fre | frena | ahead/in front of _ |
| fru | fruta | fruit of |
| fua | fumna | woman |
| fuc | futci | later than/after |
| fui | futci | later than/after _ |
| fum | fumna | woman |
| fur | fu | [second passive] |
| fus | fusto | office of |
| fut | futci | later than/after |
| gaa | ganta | higher than _ by _ in gravity field _ |
| gac | gancu | wins/gains _ from/over _ |
| gad | gandi | god/diety of peoples _ |
| gai | garni | governs |
| gal | ganli | organizes _ into _ for task/function |
| gan | ganta | higher than _ by _ in gravity field _ |
| gao | gasno | anus of |
| gar | garni | governs _ |
| gas | gasno | anus of _ |
| gat | garti | grateful to _for _ |
| gau | gancu | wins/gains _ from/over _ |



| gus gut | gusto gusto | flavor of <br> flavor of |
| :---: | :---: | :---: |
| haa | hasfa | house |
| had | hardu | harder/firmer/more resistant than _ |
| haf | hasfa | house |
| hai | hapci | happy about _ |
| ham | harmo | seems harmonious with _ to _ |
| hao | harko | harbors/shelters _from _ |
| hap | hapci | happy about _ |
| har | harko | harbors/shelters _ from _ |
| has | hasfa | house |
| hat | hatro | hotter than _ by |
| hea | helba | helps _ to [do _ |
| heb | herba | plant |
| hed | hedto | head of _ |
| hek | hekto | hundredfold of _ |
| hel | helba | helps _ to [do ] |
| her | herfa | hair of |
| hia | hijra | present at |
| hid | hidro | hydrogen H |
| hij | hijra | present at _ |
| hir | hirti | hears _ over background noise _ |
| his | hisri | history of _ by _ |
| hoa | horma | horse |
| hoi | hompi | drinks _ from _ |
| hol | holdu | hole/pit/depression in _ |


| hom <br> hon | hompi horno | drinks _ from _ horn of |
| :---: | :---: | :---: |
| hoo | horto | lasts _ hours default 1 |
| hor | horma | horse |
| hos | hospi | hospital of community _ |
| hot | horto | lasts _ hours default 1 |
| hou | holdu | hole/pit/depression in _ |
| hui | hutri | destroys/ruins |
| hum | humni | human/a human being |
| hun | humni | human/a human being |
| hut | hutri | destroys/ruins |
| jag | jaglo | angle at _ between points _ |
| jai | jalti | product of _ multiplied by _ |
| jan | janto | hunts game/quarry _ |
| jao | jaglo | angle at _ between points |
| jar | janro | narrower than _ by |
| jel | djela | healthier than _ |
| jet | djeta | owes _ to _ for _ |
| jio | djipo | important to _ for _ |
| jip | djipo | important to _ for _ |
| jit | djitu | tight on |
| jiu | djitu | tight on |
| jmi | jmite | meets/encounters _ at _ |
| jok | jokla | clock |
| jol | jokla | clock |
| jos | djoso | sews/stitches _ to _ |


| jua jug | jugra <br> jugra | grabs/seizes _ with <br> grabs/seizes _ with |
| :---: | :---: | :---: |
| jui | jupni | opines/thinks _ about _ |
| jul | djula | jewel in/of jeweled object |
| jun | junti | younger than_ by |
| juo | djupo | supports/maintains _ with/by |
| jup | djupo | supports/maintains _ with/by |
| jur | ju | [third passive] |
| kaa | kamla | comes from _ to _ via |
| kac | kance | conscious/aware of |
| kad | kamda | fights/struggles with _ over |
| há | käncee | conscious/aware of _ |
| kaf | kasfa | punishes _ for _ by doing _ |
| kai | katli | has quality/feature/property _ |
| kak | kakto | performs act _ with goal |
| kal | kapli | complete/finished/done by standard _ |
| kam | kamla | comes from to ${ }_{\text {- }}$ via |
| kan | kanmo | can/able to do _ under _ |
| kao | kakto | performs act _ with goal _ |
| kap | kapni | open [adj] |
| kar | kamra | camera |
| kas | karsa | across _ from _ |
| kat | katli | has quality/feature/property _ |
| kau | kangu | dog |
| kea | ckela | school of community _ |
| kec | kecri | sad/sorry about _ |


| kei kej | kecri kerju | sad/sorry about _ takes care of _ |
| :---: | :---: | :---: |
| kem | kemdi | a pure instance of chemical _ |
| ken | kenti | question/inquiry about _ put by _ to _ |
| keo | ckemo | time/interval from_to |
| kep | ketpi | ticket to _ from _on for |
| ker | kerti | air |
| ket | ketli | kettle of/containing _ |
| keu | kerju | takes care of |
| kic | kicmu | medically treats _ for _ with _ |
| kii | kinci | accompanies _ in activity _ |
| kik | kinku | sharper/more keen than _ |
| kil | kilto | thousandfold of |
| kin | kinci | accompanies _ in activity _ |
| kiu | kicmu | medically treats _ for _ with _ |
| kiz | skizo | ski |
| kla | klabu | cloth/fabric/textile |
| kle | klesi | class of _ with distinguishing features _ |
| kli | kliri | more clear/transparent than _ |
| klo | klogu | closed, as of a container/door |
| klu | kutla | cuts _ into pieces _ |
| koa | korva | curve through points _ |
| koc | korce | cord/rope/string |
| koe | korce | cord/rope/string |
| kof | komfu | comfortable in/about _ |
| koi | korji | commands _ to do _ |


| koj kok | korji kokfa | commands _ to do cooks_for_ |
| :---: | :---: | :---: |
| kol | kolro | color to _/perceived by _ |
| kon | konte | count/number in set _ |
| koo | kolro | color to _/perceived by _ |
| kop | kopea | copy/facsimile of _ |
| kor | korti | body of _ |
| kos | konsu | consul of _in _ |
| kot | komta | computer |
| kou | komfu | comfortable in/about _ |
| kov | korva | curve through points _ |
| kra | kraku | cries [out] |
| kre | kreni | ray/beam/radiation from source _ |
| kri | krido | believes _ about |
| kro | kroli | flow/current from _ to - |
| kru | kruma | room/chamber of/in |
| kua | kuvga | cover of/on _ |
| kub | kubra | broader/wider than_ by _ |
| kuc | kunci | related to _ by/through _ |
| kui | kunci | related to _ by/through _ |
| kuk | kukra | faster than _ in _ by _ |
| kul | kultu | culture of peoples _ |
| kum | kumtu | common/universal to set _ |
| kun | kurni | warns/cautions _ of/about danger _ |
| kuo | kusmo | custom/habit of _ under _ |
| kup | kupta | cup/vessel of/containing _ |


| kur | kurfa | square with vertices _ |
| :---: | :---: | :---: |
| kus | kusmo | custom/habit of _ under _ |
| kut | kutra | more bitter than ${ }_{\text {- }}$ - |
| kuu | kumtu | common/universal to set _ |
| kuv | kuvga | cover of/on _ |
| laa | langa | longer/taller than _ by _ |
| lab | blabi | whiter than _ |
| lad | plado | plow |
| lae | larte | art of creating/adorning _ among _ |
| lag | langa | longer/taller than _ by |
| lai | landi | parcel/expanse of land |
| lak | lakse | wax from source _ |
| lal | laldo | older than _ by _ |
| lan | landi | parcel/expanse of land |
| lao | laldo | older than _ by |
| lar | larte | art of creating/adorning _ among _ |
| las | lasti | more elastic than |
| lat | latci | lighter than _ by _ in gravity field _ |
| lea | letra | letter/character in alphabet/character-set _ |
| led | ledri | lightning from _ to _ |
| lei | letci | lets/permits _ do _ under _ |
| lek | lenki | electric charge on |
| lel | lelpi | horizontal/level in gravity field _ |
| len | lengu | language of peoples _ |
| leo | lenzo | lens of optical system _ |
| lep | lelpi | horizontal/level in gravity field _ |


| ler les | lerci | letter to _ from _ about _ east[ern part] of _ |
| :---: | :---: | :---: |
| let | letci | lets/permits _ do _ under _ |
| leu | lengu | language of peoples _ |
| lez | ledzo | left[-hand side] of _ |
| lia | clina | straight line through points _ |
| lic | linco | leaner/thinner than _ by _ |
| lid | lidji | religion of peoples _ |
| lif | clife | leaf of plant _ |
| lii | clivi | live/alive/living |
| lij | limji | limit/boundary of _ |
| lik | likta | week of month/year _ |
| lil | Ilifa | law against _ punished by _ under conditions _ among people _ |
| $\lim$ | limji | limit/boundary of _ |
| lin | clina | straight line through points _ |
| lio | likro | liquor; distilled spirits |
| lip | klipu | keeps/holds/retains _ |
| lis | lista | list of the elements in set _ in order _ |
| lit | litla | light from source _ on surface _ |
| liu | litnu | prevents/restrains _ from doing _ |
| liv | clivi | live/alive/living |
| loa | flora | flower/blossom/bloom of plant _ |
| lod | lodji | logic for inferring _ from _ |
| $\mathbf{l o g}$ | logla | part of the Loglan language |
| loi | lokti | local to _/confined to _ |
| lor | flora | flower/blossom/bloom of plant _ |


| lua lul | pluma lunli | feather/plume/plumage of _ wool from source _ |
| :---: | :---: | :---: |
| lum | pluma | feather/plume/plumage of _ |
| lun | lunra | lunar/pertains to Earth's moon |
| lus | lusta | west of _/a -ern part of _ |
| maa | matma | mother of _ by father |
| mac | matci | machine for use/function _ |
| mad | madzo | makes _ out of _ _ happen |
| mae | marte | market/mart of community |
| mag | magne | magnet[ic] |
| mai | matci | machine for use/function _ |
| maj | madji | does magic before |
| mak | manko | mouth of |
| mal | malbi | sick/ill with _ from vector _ |
| mam | matma | mother of _ by father |
| man | malna | milk from source |
| mao | madzo | makes _ out of _ _ happen |
| mar | marka | mark on _ distinguishing it from _ |
| mas | maksi | maximum/maximal value of function |
| mat | matma | mother of _ by father _ |
| maz | madzo | makes _out of _ _ happen |
| mea | mensa | month of year |
| meg | megdo | millionfold of _ |
| mei | merli | measures _ to be _ on scale _ |
| mek | menki | eye of _ |
| mel | merli | measures _ to be _ on scale _ |



| mou mov | mordu <br> modvi | exceeds _ in property _ by _; more motive for _ to do _under _ |
| :---: | :---: | :---: |
| moz | monza | morning of day _ |
| mra | marka | mark on _ distinguishing it from _ |
| mre | mrenu | man adult human male |
| mro | mordu | exceeds _ in property _ by _; more |
| mub | mubre | wood/lumber from source |
| muc | mutce | more extreme than _ in _ |
| mud | muvdo | moves to _ from _ over path _ |
| mue | mutce | more extreme than _ in _ |
| mui | muzgi | music by composer |
| muk | murki | monkey |
| mun | munce | community of individuals/organisms _ |
| muo | muvdo | moves to _ from _ over path _ |
| mur | mursi | sea/ocean of planet _ |
| mus | muslo | muscle of |
| mut | mutce | more extreme than ${ }_{\text {in }}$ - |
| muv | muvdo | moves to _ from _ over path _ |
| muz | muzgi | music by composer _ |
| naa | natra | natural; not caused by man |
| nab | nable | problem to _ in doing task _ |
| nad | nadro | sodium Na |
| nai | natli | nighttime of day |
| naj | najda | knife |
| nal | naldi | nail |
| nam | namci | name of _ to/used by |


| nan <br> nao | nanti | billionth part of _ <br> simultaneous with _; default now |
| :---: | :---: | :---: |
| nar | natra | natural; not caused by man |
| nat | natli | nighttime of day _ |
| nau | nardu | difficult for _ under _ |
| naz | nadzo | simultaneous with _; default now |
| nea | nedza | next/adjacent to _ |
| neb | nerbi | necessary/needed/essential for task/process _ |
| ned | nedza | next/adjacent to _ |
| neg | negvo | negative, as of numbers/charges |
| nei | nenri | in[side of] _ |
| nej | nerji | has more energy than _ by _ |
| nem | nemdi | enemy of _ in struggle _ |
| nen | natli | nighttime of day |
| ner | ne | one |
| nes | nesta | honest with _ about _ |
| net | netre | net |
| nev | nervi | nerve of _ |
| nia | nimla | animal |
| nic | snice | snow |
| nie | nirne | year of epoch _ |
| nig | nigro | blacker than _ |
| nik | nikri | cheese from source |
| nil | nirli | girl |
| nim | nimla | animal |
| nin | nirne | year of epoch _ |

```
nir ni zero
nit nitci neater than_
noa
norma norm/normal/average of _ on dimension _
nordi north[ern part] of _
notbi not the same as 
norma norm/normal/average of _ on dimension _
nor no non-, not
not notbi not the same as _
nue nukle nucleus of atom/cell _
num numcu number
nun nu [first passive]
nur nu [first passive]
nuu numcu number
nuz nuzvo news of/about _ from source _
pac patce apparatus/device for doing _
pae patce apparatus/device for doing
paf pafko digs _ up out of _
pai parti part of whole
pak pasko past/earlier than/before _; default now
pal spali side of _ bounded by edges _
pan panba pan; a handled cooking vessel
pao pasko past/earlier than/before _; default now
par parti part of whole _
pas pasko past/earlier than/before _; default now
pat patpe pot; a deep cooking/storage vessel
paz pazda pauses/waits for _ before doing _
```

```
pea penta point of _
peb spebi specific/special to/confined to _ among _
pec petci pays _ to _for goods/service
ped pendi hangs from _ in gravity field
pee penre parent of _ with co-parent _
pei petci pays _ to _ for goods/service _
pej penja sponge
pen penso thinks about
peo penso thinks about _
per pernu person
pet penta point of _
peu pernu person
pic pinca urine of _
pid pinda pin
pie pirle parallel to _
pif pifno more frequent than _ under _
pik pikti trillionth part of _
pil pilno plane/flat area through points
pin pinti paint
pio .pifno more frequent than _ under _
pip piplo people/folk of place/country _
pir pirle parallel to 
pis pismi at peace with _
piu pisku a piece of
pla plata plate/dish of food _
ple pleci plays at/with _
```

pli plizo uses/employs/utilizes _for _ plu pluci pleases _by _
poa ponda responds/reacts _ to _ under conditions
poi porli has power over _/be the master of _
poj porju pig
pol poldi nation/state/polity/country of people _
pon ponsu owns/possesses/has _under law/custom _
pos posta mails _ to _from _by _
pou ponsu owns/possesses/has _ under law/custom _
pov pozvo positive [numbers/charges]
poz pozfa opposes/opponent _ on issue _
pra prase process continuing through stages _
pre papre paper
pri prire behind/to the rear of/in back of _
pro proju produces _by process _
pru pruci test for _ among _
pua purda word for _ in language _
pub publi more public among _ than _
puc pucto pushes/propels _to _from _ via _
pud pudru powder from source _
pue purfe perfect by standard
puf purfe perfect by standard _
pul pulso be impelled to do _
pum pubmo lead Pb
pun puntu feels pain/hurt in
puo pucto pushes/propels _ to _from _ via _

| pup <br> pur <br> put | purpu <br> purda <br> sputa | more purple than _ word for _ in language _ spoon |
| :---: | :---: | :---: |
| puu | puntu | feels pain/hurt in _ |
| raa | grasa | grass |
| rac | traci | travels to _ from _ via route _ |
| rad | rande | circle/disk/round |
| rae | rande | circle/disk/round |
| rag | fragu | foggy |
| rai | trati | tries/attempts to do/attain _ by _ |
| raj | kraju | scratches |
| rak | draka | darker than _ by _ |
| ral | prali | profit to _ from _ |
| ram | frama | frame of/around |
| ran | ranta | more rotten than |
| rao | brato | ratio/quotient of _ divided by _ |
| rap | rapcu | riper than |
| rar | ra | all, omni- |
| ras | grasa | grass |
| rat | prati | price of _to _ from vendor _ |
| rau | ratcu | rat |
| raz | raznu | reason for _'s doing _ under |
| rea | retca | differs/different from _ in |
| reb | breba | bread |
| rec | retca | differs/different from_in_ |
| red | redro | redder than |


| ref rei | resfu revri | item of clothing dreams [that] |
| :---: | :---: | :---: |
| rel | trelu | rail/railing/bar |
| ren | renro | throws/propels _ to/at/toward |
| reo | renro | throws/propels _ to/at/toward |
| res | resfu | item of clothing |
| ret | resto | rests/reposes/lies down on _ |
| reu | trelu | rail/railing/bar |
| rev | revri | dreams [that] _ |
| rez | frezi | free to do/be _ |
| ria | briga | more brave/courageous than _ under _ |
| ric | ritco | right of /-hand side of _ |
| rid | ridle | reads _ from surface/document _ |
| rie | rispe | respects _ for doing/being _ |
| rie | trime | tool/implement/instrument for doing |
| rig | briga | more brave/courageous than _ under _ |
| rii | rilri | more regular/periodic than _ |
| rik | briku | brick |
| ril | brili | more brilliant/bright than _ by |
| rim | trime | tool/implement/instrument for doing _ |
| rin | rinje | ring/band on/around _ |
| rir | rirda | record of _ on medium _ |
| ris | rispe | respects _ for doing/being _ |
| rit | rinta | rhythm of _ |
| riu | srisu | serious/grave about _ |
| riz | prizi | private to _ |


| roa roc | rodja brocu | grows in place _ under conditions _ brush [n] |
| :---: | :---: | :---: |
| rof | rofsu | rougher/more abrasive than _ |
| rog | proga | program written by _ for/to do _ on systern _ |
| roi | groci | angry/grouchy with _ about _ |
| roj | rodja | grows in place _ under conditions _ |
| rol | rolgu | roll/roller/cylinder |
| ron | brona | browner than |
| ror | ro | many, multi- |
| ros | rofsu | rougher/more abrasive than _ |
| rou | brocu | brush [ n ] |
| roz | mroza | hammer [ n ] |
| rua | rutma | path/route to _ from _ |
| rue | brute | breathes |
| ruf | trufa | roof of _ |
| rui | rulni | rule prescribing _ to _ under _ |
| rul | rulni | rule prescribing _ to _ under |
| run | grunu | grain/cereal from source _ |
| rus | prusa | approves plan/proposed action _ by _ |
| rut | rutma | path/route to _ from _ |
| ruu | prutu | protests _ to _ by doing/saying _ |
| saa | sanpa | sign meaning _ to _ disposing action _ under _ |
| sac | satci | start/source/origin/beginning of _ |
| sad | sadji | more sage/wise than _ about _ |
| sae | sanse | senses stimulus _ under _ |
| saf | salfa | sail of vessel |


| sag sai | sange santi | proposes/suggests action _ to _ more quiet/silent than |
| :---: | :---: | :---: |
| saj | sadji | more sage/wise than _ about _ |
| sak | sakli | sack/bag/pouch of/containing _ |
| sal | saldi | solid below temperature \& pressure _ |
| sam | samto | same/identical thing as _ |
| san | sanpa | sign meaning _ to _ disposing action _ under _ |
| sao | samto | same/identical thing as _ |
| sap | sapla | simpler than _ in respect _ |
| sar | sarni | more sour than _ to _ |
| sas | sanse | senses stimulus _ under _ |
| sat | satro | rubs/strokes _ with _ |
| sea | setfa | puts/places/sets _ on/at _ |
| sec | sekci | behaves sexually toward _ |
| sei | setci | set/group of elements |
| sek | sekta | insect |
| sel | selji | self[-image] of _ |
| seo | sento | holy/sacred to _ |
| ser | se | seven |
| ses | sensi | scientific fact/principle of/about _ |
| set | setci | set/group of elements _ |
| sia | sitfa | site/place/location of _ |
| sib | sibli | sibling of _ through parents _ |
| sic | sitci | city/town with hinterland _ |
| sif | sitfa | site/place/location of _ |
| sii | simci | appears/seems to be _ to _ under _ |

sil siltu shakes/oscillates/vibrates at rate _ and amplitude _
sim simci appears/seems to be _to _under _
$\sin \quad$ sinma cinema/movie/film made by
sio sisto system of function _\& parts _
sir sirto certain/sure that _is true
sis sisto system of function _\& parts _
sit sitfa site/place/location of _
siu siltu shakes/oscillates/vibrates at rate _ and amplitude _
siz sidza seed of plant _
ska skalu scale measuring _ among _
ski skitu sits [down] on
sko skori screw
sku suksi succeeds in _ by effort _
sla slano slower than _by _
sli sliti sweeter than_to _
slo slopu steeper than_ by _
slu sluko lock of/on _
sma smano smoke from source _
smi smike secret kept from _ by _
smu smupi smoother than_ by _
sna sanca sand from source _
sne sneku neck of _
sni snire closer/nearer than _to _by
sno snola entails/implies _ under rules _
soa sonda sound/noise emitted by
soc socli socially interacts with _

```
sod solda soldier of unit/army _
soe sorme sister of _ through parents _
sog sorgu ear of _
soi sonli asleep
sol solra solar
som sorme sister of _ through parents _
son sonda sound/noise emitted by
sor so six
sot solte salt from source
spa spasi space/volume occupied by 
spe speni experiences/spends _
spi spicu spirit/ghost of _ seen by
spo spopa hopes/wishes for /that _ happens
spu spuro expert/skilled in/at _ under conditions
sri srite writes _ on surface _
sro sordi store/deposit/reserve of 
sru surna damages/injures _ at/in _
sta stadi stage of hall/auditorium/theater _
ste steti sentence about _ in language _
sti stise ceases/stops doing _
sto stolo stays/remains at/with _
stu stuci story about _ as told by
sud surdi south[em part] of _
sui sundi sends/despatches _ to _ from _.via route
sul sulba swelling/bump at/in/on _ from _
sum sumji sum/total of _ plus _
```

| sun suo | sunho sunho | son of parents son of parents |
| :---: | :---: | :---: |
| sup | supta | soup/stew of ingredients _ |
| sut | sutme | smell/odor/aroma emitted by _ |
| suv | surva | serves _ in/by |
| taa | takna | talks/speaks to _ about _ |
| tae | tarle | tired/fatigued by effort _ |
| tag | targo | argues/disputes with/against _ that _ |
| tai | stali | stands up/on |
| tak | takna | talks/speaks to _ about _ |
| tal | tarle | tired/fatigued by effort _ |
| tam | tarmu | weapon for use _ |
| $\boldsymbol{t a n}$ | trana | turns/rotates/revolves around internal axis |
| tao | targo | argues/disputes with/against _ that _ |
| tar | tarci | star of galaxy _ |
| tat | tatro | theater/theatre of community _ |
| tau | tarmu | weapon for use _ |
| tca | tcaro | car/motor vehicle |
| tce | tceru | penetrates/passes through _ in direction _ |
| tci | titci | eats _ |
| tco | totco | touches _ with _ |
| tcu | tcure | picture of _ by _ |
| tec | tetcu | stretches to _ from _ |
| ted | tedji | attends/pays attention to _ |
| tei | tedji | attends/pays attention to _ |
| tej | tedji | attends/pays attention to _ |



| tor | to | two, bithicker than _by |
| :---: | :---: | :---: |
| tov | tovru | above/over _ in gravity field _ |
| tra | tradu | true by rule/standard _ |
| tre | trena | train of system _ |
| tri | tricu | tree |
| tro | troku | rock/stone from source _ |
| tru | truke | structure of _ |
| tsa | tsani | sneezes |
| tse | tsero | error/defect/mistake in _ by standard _ |
| tsi | tsime | crime punished by _ among _ |
| tso | tsodi | hates _ for doing/being _ |
| tsu | tsufi | sufficient/enough for use/purpose _ |
| tua | turka | works on/at _ with goal _ |
| tub | tubli | tube/pipe |
| tue | tugle | leg of _ |
| tui | stuli | adjusts/regulates _ for function _ |
| tul | tugle | leg of |
| tur | turka | works on/at _ with goal _ |
| vaa | valna | violent in response to - |
| vad | valda | develops/acquires new property/feature _ |
| vai | valti | vaults/jumps over/across _ |
| val | valti | vaults/jumps over/across _ |
| van | valna | violent in response to _ |
| vao | vapro | gas/vapor above temperature _ |
| vap | valpu | wave in medium _ |


| vat vau | vatlu vatlu | value/worth of _ to _ for use value/worth of _ to _for use |
| :---: | :---: | :---: |
| vea | vedma | sells/vends _ to _ for price _ |
| ved | vedma | sells/vends _ to _ for price _ |
| vef | vetfa | invents _ for use _ |
| veg | vegri | greener than |
| vei | vetci | an event happening to/involving _ |
| vel | veslo | vessel/container of/containing _ |
| vem | vedma | sells/vends _ to _ for price _ |
| ven | vendu | poison[ous] to - |
| veo | vesio | vessel/container of/containing _. |
| ver | ve | nine |
| ves | versa | poem/verse by _ |
| vet | vetci | an event happening to/involving _ |
| veu | vendu | poison[ous] to _ |
| via | vizka | sees _ against background _ |
| vid | vidre | idea about _ experienced by thinker _ |
| vie | vidre | idea about _ experienced by thinker _ |
| vij | vidju | view/image of _ from viewpoint/perspective _ |
| vik | vizka | sees _ against background _ |
| vin | vinjo | wine from source _ |
| vit | virta | advertisement for _ in medium _ |
| viu | vidju | view/image of _ from viewpoint/perspective _ |
| viz | vizka | sees _ against background _ |
| vla | vlako | lake of landmass |
| voi | volsi | voice of individual |


| vol vor | volsi vo | voice of individual eight |
| :---: | :---: | :---: |
| vre | vreti | vertical/upright in gravity field _ |
| vri | vrici | river of landmass _ |
| zal | zavlo | worse than _for _ |
| zan | zavno | oven of |
| zao | zavlo | worse than _for _ |
| zas | dzaso | soap |
| zav | zavio | worse than_for |
| zbu | zbuma | explodes into _ |
| zvo | zvoto | out[side of] _ |

## For Further Study

The primary source of reliable information about Loglan is the Loglan Institute, Inc., 3009 Peters Way, San Diego, CA, 92117.

Resources include

Loglan 1: A logical language, which explains the history and reasoning behind the project;
tapes;
computerized teaching programs for the Macintosh and IBM PC;
the Loglan Interactive Parser (LIP ${ }^{\text {TM }}$ ), which will let you know how a Loglanist would interpret the grammatical structure of any Loglan text you input;
a computer dictionary for the Macintosh and IBM PC;
and numerous other publications and periodicals.

The Institute can also put you in touch with other Loglanists. (You may be able to find Logli on computer networks, but this is chancy: I have encountered on the nets several self-proclaimed experts who simply don't understand Loglan (or perhaps any language). It's better to stick with the people who have spent over thirty years developing some expertise.)

