

Public Agenda for the Loglan Institute (revised)

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This document summarizes the current news about the Loglan Institute and what it might conceivably get up to. I am revising it a little with an eye to posting it on www.loglan.org; development have already outrun the original text!

1 Our Purpose

To promote knowledge of and to use the Loglan language defined and developed by our Founder, James Cooke Brown, and his associates. We are not opposed to the study and use of related languages (such as Lojban), but we are not interested in submerging the version of Loglan promulgated by the Institute in one of the others.

2 The structure of the Institute at the moment

On 6/04/08, Bob McIvor appointed me CEO of the Loglan Institute. The term has always seemed excessively grandiose to me, but that is what my title is. I am at the moment out of contact with Wesley Parsons, our president (his email doesn't function); if someone could help me get in touch with him this might be useful.

2.1 What I said when I took the job in 2008

Thanks, Bob, for introducing me and for doing the job since JCB's death.

Hi Loglanists, I'm Randall Holmes. I've been interested in Loglan since I read 1975 Loglan in the Cornell University Library in my late teens or early twenties (I'm 51 now, it has been a while). My official connection with Loglan was that I ran a column on logical issues for Lognet for some time (I withdrew from doing this due to disagreements with JCB about technical issues). I had the pleasure of meeting JCB in person once or twice. I am a mathematical logician by profession (which gives me one angle on Loglan) and I love constructed languages (which gives me another angle). My Loglan is quite rusty at the moment; it has been better in the past, and I shall be studying to bring it back up to par.

Some things I'm thinking about:

I write automated reasoning software as part of my research program. This means that I write parsers (and I might try to write a Loglan parser of my own); it also means that I write programs which carry out steps in logical arguments formally. I'm thinking of developing software designed to carry out allowed logical transformations on Loglan sentences (ultimately: initially probably on a formal language similar to predicate logic but allowing constructions like "John and Mary" and "All men" which are avoided in the usual formalizations of logic). A logical language ought to admit not only computer based syntax checking but also computer based logic checking...

For language learning, I note that we are a small community so it is not easy to meet face to face. Has anyone considered the possible use of Second Life (or the related There or ActiveWorlds which are **much** less hardware intensive) as a "place" to meet and speak Loglan? All these environments support voice chat as well as text chat (tho one might want to start with text) and all of them are accessible for free. I know that learners of other languages have noticed this. I hang out in all these places: I could offer advice if anyone wanted to meet there to converse in Loglan.

We ought to have contacts with LLG (the Lojban organization). I believe we have had to some extent since JCB's death. While I'm studying our literature to bring my Loglan back up to an acceptable level, I will also be reading the Lojban reference grammar (which certainly differs from ours but has the merit of being a complete grammar of a similar language).

I'm interested in hearing any thoughts that others may have. I encourage initiative as well: if you have something in mind to do, do it (and tell me

about it). If you **are** doing something already, tell me about it!

I do not have any illusions that TLI is about to get wildly busy (and I am a non-retired person who does not have the energy to make this happen single-handed), but we might be able to do a few things. I've been interested in JCB's project all my adult life; taking on this position officially obligates me to do something with it, and a response to what I do or suggest might have a feedback effect (*soi crano*)

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My home page is <http://math.boisestate.edu/~holmes> at which you can discover various things about me. In Second Life, my avatar is "Leslie Beaumont" if anyone on the loglanists list happens to use that environment.

3 What I have been doing most of the time since then

Since then, I have been meeting with a small group each Saturday morning at 9 am Pacific time in Second Life and chatting in and about Loglan. A great deal of Loglan has been typed at these sessions. We have occasionally broken into voice. As a result of years of practice, I now speak (or at least write) considerably more Loglan than I did at the outset.

There is a large body of rather indigestible transcripts of the Second Life meetings, which probably includes matters of interest such as word proposals, which probably ought to be looked over. We do make an effort to write a lot in Loglan!

If you want to join us, you can set up a free Second Life account and send an instant message to Leslie Beaumont (me) or Cyril Svoboda.

We should probably organize other kinds of opportunities for text chat. I do think that there are advantages to a richer environment than a chat window for language learning.

I have had friendly discussions with members of the Logical Language Group about our respective languages on various occasions. It is a fact of life: there are two (or more) languages in our language family, and I think we have certain common interests and there is no reason not to be on good terms.

4 What I have been doing recently

Over the course of the last two months, I have written a PEG parser for Loglan. The intention is to parse a recognizable variant of TLI Loglan from the level of letters upward with no preprocessing not described in the formal grammar. Mod bugs (minor bugs do keep showing up) and minor features not implemented (no acronymic predicates, for example), this has been achieved.

My reasons for doing this bear explanation. A principal asset of our language is that it is computer parsable and has an official formal grammar. A problem with this is that the existing parser is legacy software (at any rate I have not managed to port it) and very important aspects of it (the recognition of little words of certain classes and the “preprocessing”) are not reflected in the formal grammar and could only be divined by delving into the mysteries of the computer code. My aim was to create a version of the grammar which I can maintain myself (or which other TLI workers could maintain) and for which it is easy to propose and test changes or extensions.

The PEG approach has some formal advantages and some disadvantages. It takes a bit more knowhow to read the PEG grammar and see what it does. Tools to check that it does not work in unintended ways do not exist as far as I know (but I am working on one). Its main advantage is that a PEG is *by definition* unambiguous; where more than one way to break a string into parts of two indicated grammar classes exists, it always defines a way to choose the break point, which is usually to choose the break point as far to the right as possible (which is compatible with the design philosophy of Loglan). The danger of a PEG is that while it disambiguates automatically using priority rules, if one does not write ones options carefully it will not choose what you intend to choose.

The project breaks up into three parts. The first was to “parse” legal words (structure words (cmapua), predicates (preda), and names (namci)) from a stream of letters. This I basically did on my own (working from descriptions of how this is supposed to work in L1 and in Notebook 3). Writing

a set of PEG rules to recognize Loglan predicates (primitives, complexes and borrowings) was not easy, but this now exists. Names are trivial, but that is because I currently allow any string of letters ending in a consonant to be a name.

The second part was to duplicate the work of the lexer in identifying compound structure words. I used descriptions in Notebook 3 and experiments with LIP to determine the intended extent of the large structure word classes (such as compound tenses, compound conjunctions, mathematical expressions, and compound articles), then wrote my own PEG rules with similar intentions, which demonstrably do not generate exactly the same classes of words – but it is also clear that there are some bugs in the LIP implicit definitions.

The third (and easiest) part was to implement the grammar in trial.85 as a PEG. This is greatly aided by the fact that that grammar is already largely or entirely unambiguous; if one has an unambiguous BNF grammar and orders alternatives in priority lists carefully, one can usually replicate it with a PEG (mod difficulties with avoiding left recursion, which were mercifully not great in the Loglan grammar). Preprocessing was eliminated by inserting optional instances of the freemod class in many places in the grammar.

5 Proposals generated explicitly or implicitly by the parser work

My aim in writing the parser was to implement Loglan essentially as it stands officially, though I was conscious that what I implemented might already incorporate minor changes. I list some of these.

legal predicate forms: JCB clearly intends to allow very long strings of vowels to occur before the CC joint in borrowings (this is discussed in Notebook 3). I do not; I allow no more than three, as a side effect of a conservative way of determining when a structure word might be thought to fall off the front of a predicate. This does not affect any borrowing in the dictionary. In the latest version, I have the full word-maker's kit: the parser will parse a complex with borrowings in it (rules for this were not articulated in Notebook 3 but are found in Appendix H, the Loglan Updater). I do not have any test for eliminating false

hyphens from borrowings; the parser will read a borrowing which falls apart into a complex as a complex, because of the way the priorities in parsing a predicate are set. It is important to note that I follow the ruling in Appendix H which vacates the *slinkui* test and requires that initial CVC affixes which form an initial consonant pair with the first consonant of the following affix be hyphenated with *y*; I have proposed a modification to the Academy (and installed it in the parser) which forbids CCVV borrowings and so allows us not to hyphenate CVCCVV words when the CC is initial. There is an alternative proposal to simply restore the *slinkui* test.

The initial SV which is found in *sveri* is added to legal initials and in fact this was already done in Appendix H. I also added ZL, which is attested in the composite primitive *zlupi*.

modifications to structure word classes: PEG rules that made sense for generating the large structure word classes generally generate more words than LIP actually accepts. I find in many cases that the new words are perfectly useful and sensible. I included compound tenses formed with *ze*, which indicates that intervals of time are contiguous (a proposal made in the Second Life group): *piazena* means “in a past interval of time extending right up to the present” for example. These modifications are for the most part simply technical and will be subsumed under a proposal that the PEG parser be taken to embody the official grammar of the language.

breaks in structure words: The problem referred to under this heading is most famously the *lepo* versus *le po* problem. One would like to think that compound words are just a convenience and in fact the grammar processes a stream of little word units. This simply isn't the case in TLI Loglan and I suspect it is not the case in Lojban either. What I did to make it clear what is going on is to explicitly require that breaks in little words which have semantic effects (which entail a spoken pause) also entail an actual comma in writing. So *le po* is actually the same as *lepo* for my parser, with the form with the break written *le, po*. I have discovered other places in the grammar where significant word breaks can occur. I don't regard semantically significant word breaks as ideal, but I also don't regard them as unacceptable.

pauses and serial names: Once predicate units were allowed to occur in

names, as in *la Djan Kamla*, it became to my mind mandatory to use *gu* or *ga* in a sentence like *la Djan, ga kamla*. I was following what L1 says – we have only one pause phoneme, so we cannot interpret the pause after a name (which is mandatory on phonetic grounds) as a *gu*. I find in the updater (Appendix H) that the Keugru ruled that we have two pause phonemes (short pauses in serial names, written as spaces). I resist this, and thus my parser views *la Djan, kamla* as a name, and *la Djan, ga kamla* as a sentence. Explicit terminators are required after names in various other contexts since I take this view. I am not opposed to significant pauses, but I think that we should have only one.

quotation forms: My current parser implements a very different proposal for strong quotation (our official one *cannot* be implemented by a PEG or even a BNF grammar), which I will detail to the Academy in due course.

missing constructions: Acronymic predicates are not yet supported. There may be other minor features of the language which are not supported. There is no phonological analysis of names. This should be added, but may require review.

6 Other likely projects and proposals

I will comment the PEG grammar so that one can look up a rule and see a reasonable English (Loglan?) account of what it does; in fact, as of this revision I have published an initial segment of this document. I have a long term aim of writing a complete reference grammar of the language which will include all the formal rules in appendices or footnotes or both.

I am likely to extend the existing PEG parser to one which accepts phonological information (including stress). It is my belief that all phonological information crucial to parsing Loglan can actually be deduced from the orthography, so the phonological version will not parse sentences any differently. But it will make some of these implicit things explicit.

I am going to propose that we ban sequences of more than four vowels in any Loglan predicate or name. That proposal will also include explicit proposals about well-formedness of names. I do think that the syllable LA

should be able to occur in a name; when this happens, certain optional pauses will become mandatory.

I will make a comprehensive proposal that the PEG grammar (recognizing that it may need to be debugged) should be regarded as the official grammar, with backward reference to trial.85 and the founding documents (L1, Notebook 3) when bugs are found.

I have a proposal (implemented in the PEG grammar though it is a novelty) allowing one to cancel a pause with grammatical effect using either *cuu* or the Lojban-derived form *y.*. Of course this also means that one can make a dramatic pause without an unintended grammatical effect.

7 The way forward

With the resources of the language now available to us in formats which we can readily edit (the PEG grammar and the HTML versions of L4 and L5) and a certain level of interest evident from my postings on the parser project, I suggest that we consider a way forward. I list things that the Institute can do.

Dictionary work: We need to add words that have been proposed since Loglan became a sleeping beauty to the dictionary. We also need to modify complexes that are affected by the CVC hyphenation rule (and possibly ones that are affected by the newly allowed initial ZL) (though I am proposing that we avoid doing this for two-affix complexes). L4 and L5 in HTML are readily edited. I suggest that an official version be maintained on www.loglan.org or on my mirror site or both; of course individual workers can maintain their own dictionaries of proposed words.

Complete grammatical vocabulary: This might seem like dictionary work all over, but to me it seems like a separate important point. Lojban has a full native vocabulary for talking about Lojban grammar. We do not have full native vocabulary for talking about our own grammar; it is very odd that we just added the word *cmapua* for “structure word”. I solicit proposals for such words (complete with place structure, of course). I suggest that *preda* should officially mean “predicate”, for example.

Governance: I proposed in the original version of this document that the Academy (*la Keugru*) be revived, and this has now been done. I have informally stated an initial charge for it and a set of rules for it to function by (which do not say that it has to do what I tell it to do *soi crano*). I am hoping that we can work by consensus with a minimum of “leadership” on my part. I want an Academy because I have proposals to make to it, and I do not think it is my function to make grammatical changes by decree; and it is clear that the new members of the Academy have ideas of their own!

The Academy has already issued one ruling (forbidding repeated vowels which have mandatory stress from appearing in borrowings); we are in business!

Historical and conservation work: I have asked Jenny Brown if she has any notes or other documents which might of interest to us for maintaining institutional memory. I have scanned Notebook 3, of which I have a copy, and made it available on our web site I don’t know what other artifacts may be out there. I am very conscious that I have a very thin in-person connection to the founders of this language. I met JCB twice, and I have otherwise communicated by email with various people.

Stalled proposals: I know that there is interest in, for example, the proposals re subjunctives that were never fully processed. Now that the Academy exists again there is a forum for discussing these.

8 Possible scientific aims

I suspect us of having fun, but we should not forget that this began as a scientific project.

test the Sapir-Whorf hypothesis: Would thinking in Loglan affect how we think? Try thinking in Loglan! For this, review the works of our Founder.

Is it possible to create a human language? There is a school of thought (which plagued JCB) which claims on what I consider mystical grounds that one can't. I think they are wrong. Have we proved them wrong?

Investigate specifically logical issues in the language: I considered when I took up this job the project of writing software using Loglan to represent actual logical reasoning. Such software would manipulate Loglan sentences in ways conforming with rules of logic and proof, enabling us perhaps to recognize valid arguments framed in Loglan or logical equivalences between Loglan statements of different surface forms.

Is it possible to learn both Loglan and Lojban? These languages are in a way closely related; those who know some of both report that it is hard to keep them sorted from each other. I wonder if there is some interesting psychology here.

Machine translation between Loglan and Lojban: This might be quite interesting.

9 A call to the membership

By the membership, I mean the people who read this and consider themselves to be Loglanists. Considering yourself a Lojbanist does not disqualify you, as long as you recognize that TLI is a separate if related enterprise.

Nominations to the Academy are no longer being actively sought, though it might expand; if you are interested in helping the language, dive in and work on it – we will notice!

Please submit proposals to me of things that the Loglan Institute should be doing, in your view.

Please write Loglan text!