

CREATIVE LINGUISTICS

by Garth Spencer

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The semi-creative way languages have been used, or pictured, in science fiction and fantasy, seems to come down to three topics.

Firstly, natural human languages are complex, dynamic systems; in fact there are several interacting systems in natural languages. I can sketch out for you the way language works from conventional linguistics, and incidentally point out some ignorance and misconceptions people persistently hold about language, some of which pop up in SF.

Secondly, a lot of SF writers just incidentally make reference to foreign, alien, or future languages – and they end up looking a lot like intentionally-created languages. Another notion that appears, most frequently in fantasy, is the notion of an “original” or “perfect” language, the language of the angels or of True Names; Le Guin’s *Earthsea* trilogy probably dealt with this most effectively.

But there’s a third thing on my mind. I don’t think language *works*, actually. We don’t communicate. For communication to happen, you have to have speakers speaking and listeners listening, you have to have speakers and listeners attributing the same meaning to what is said and heard, and mostly I don’t see these things happening.

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Just one of the critical details of world-building for SF is constructing a language, or languages. But there are several critical errors that people keep making, quite independently, and they are easily preventable. Even a superficial knowledge of linguistics, the study of language, will prevent a lot of problems. Depending on what you’re trying to accomplish by making a language part of your story, you could just make a few offhand references to invented words or turns of phrase; or you could construct a whole language from the ground up.

If you were going to go whole-hog, you would have to consider at least four levels on which language operates: the phonological, lexical, “grammatical” and semantic levels. On each level, a language is a system of many elements, which combine by certain rules. What makes a language complicated is partly the way these systems interact with each other, partly the way the whole thing changes over time ... and partly, the way normal language fails to work.

A few figures may give you a sense of proportion about the work. The number of different sounds that a language uses is somewhere between 11 and 38, roughly. The number of different words that a language uses is at least 1500 to 2500. The number of stated rules in a language can vary a lot; the 16 rules stated for Esperanto can be taken as a minimum. The number of different languages spoken in the world has been estimated as high as 8,000, or as low as 3,000, and is decreasing as a result of modern communications and industrialization. The list of the ten most commonly-spoken languages around the globe features many European languages, such as English, French, German and Spanish, but English is no longer in first place. A list of the concepts signified in language is a subject of current artificial-intelligence research.

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Myths about Language

There has been some ongoing confusion, not to say superstition, about the reasons why different people think and act differently, and why that seems to be associated with the groups they come from. One urban legend had it that Ojibway (or Chippewyan) had only 500 words; even an informed writer such as L. Sprague de Camp made similar disparaging comments about Chinese.

In fact, as F. Ogden showed when constructing Basic English, any given language probably has a “core” vocabulary of at least a thousand words or so. (Basic English, his answer to the perceived need for a world “common tongue”, featured 850 words in the “core” vocabulary and several technical or occupational vocabularies of a few hundred words each.)

One of many urban legends about language says that Eskimo (Inuit, these days) has many more words for “snow” than English has.

Another story: Out of two mothers playing a ball game with their children, an English mother would say “Ball!” where a Navajo mother would say, “Rolling.” English children learned to distinguish between grammatical classes for things according to number and gender, where Navajo children learned to distinguish by shape or colour. There is something profoundly, basically different at issue here.

Yet another: the idea that there are “primitive” languages spoken today, on modern Earth. In point of fact every extant human language seems to be capable of expressing as much as any other human language, even if you have to work up a phrase rather than a single word to translate it. If anything, the languages of hunting-gathering societies, with little traditional technology, have more specific terms for everything in their environment; the main difference from the languages of agrarian or industrial societies is a lack of generic terms, for classes like fish, *fowl*, *tree*, and so on.

But here’s what H. Beam Piper wrote, in *Little Fuzzy*:

“I saw a man shot once on Mimir, for calling another man a son of a Khooghra,” Jack said. “The man who shot him had been on Yggdrasil and knew what he was being called.”

“I spent a couple of years among them,” Gerd said. “They do build fires; I’ll give them that. . . . I learned their language, all eighty-two words of it. . . .”

“Can they generalize?” Ruth asked.

“Honey, they can’t do nothin’ else but! Every word in their language is a high-order generalization. *Hroosha*, live-thing. *Noosha*, bad-thing. *Dhishta*, thing-to-eat. Want me to go on? There are only seventy- nine more of them.”

(Piper, *Little Fuzzy*, New York: Ace, © 1962)

To come up with a great long list of language myths:

- 1: Somewhere, in the Ozarks or in Derbyshire, there’s a village where people still speak unaltered Elizabethan English.
- 2: There exist primitive languages. To these are variously attributed such characteristics as a tiny vocabulary supplemented by grunts and gestures, the absence of words for abstractions or generalizations, the virtual absence of any grammar, or a strange

grammatical system based upon distinctions among several different kinds of mysterious natural forces.

3: All languages are striving toward perfection, and some languages (especially mine) are much closer to this goal than other languages, which still have a long way to go.

4: Some languages are much older than others. (Don't know what this is supposed to mean, but most people appear to believe it anyway.)

5: The ancestral language of all humankind is still spoken today in some privileged corner of the earth. (Not so common today, but a pervasive belief among scholars in the past.)

6: Basque is a uniquely strange language of fiendish complexity. It is so difficult to learn that no outsider has ever succeeded in learning it. (And all Basque verbs are passive.)

7: Certain writing systems, including the Chinese one, do not represent speech or language; instead, they represent thoughts or ideas directly, without the mediation of language. (This one largely succeeded in blocking the decipherment of the Mayan inscriptions for a generation.)

8: Most of the languages I don't speak are guttural (or perhaps I should write 'gutteral').

9: Black people speak English with a funny accent because their lips are too thick to pronounce it properly. (Outrageously offensive, but believed by more than a few people.)

10: When people have a cold, their speech becomes more nasal. And French has nasal vowels because the north of France is cold and damp.

11: Castilian Spanish has a dental fricative in place of the [s] of other types of Spanish because one king of Castile had a lisp and everybody imitated him in order to be polite.

12: English has practically no grammar, and Chinese has no grammar at all.

13: French is more logical than other languages. (Many French people believe this firmly, and will argue about it.)

14: There is a language called 'Indian', and it is spoken by American Indians. (Other interesting languages I have seen mentioned include 'Belgian', 'Welsh Gaelic' and 'cuneiform'.)

15: Women interrupt far more than men. (The very reverse of the truth.)

16: Shakespeare had a BBC accent, and the Americans (and, I suppose, the Irish) have bugged up the pronunciation.

17: Everybody has an accent except me and my friends; we don't.

18: Lots of people (for example, in Africa) don't speak a language; they just speak a dialect.

19: In Britain, dialects are only spoken in rural areas.

20: Almost all language change is corruption, and the language is daily becoming more corrupt and less suitable as a vehicle of communication. Most of this is the fault of the Americans.

21: English has a verb-form called the 'infinitive', which always has a 'to' in front of it, and breaking up this sequence is ungrammatical or even immoral.

22: There are exactly eight parts of speech, and anything that gives trouble is an adverb. (Look at most dictionaries of English.)

23: One more, not a widespread myth, but something I've heard from a student: Europeans speak from left to right, while Arabs speak from right to left.

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Even a writer professionally educated in linguistics (J.R.R. Tolkien) displayed in his writing a tendency to attribute to race, or "higher"/"lower" breeding, features of speech and behaviour that might best be

attributed to environment and cultural back-round. Tolkien should hardly be blamed for exhibiting assumptions and attitudes common in the 1930s, and far from rare today. If anything, his fantasies offer us a ready example of popular fallacies and common errors, which is no small favour.

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Phonology

Spoken human languages are built basically from three or four interacting systems. The most visible and obvious is the system of sounds, which is subtly different for each language.

You may wish to make a decision about how many phonemes make up your phonetic system; this means deciding how many sound distinctions are made.

If you listen to various people, from different ages, backgrounds and ethnic groups, it becomes clear that different people make different distinctions between sounds; equally, that some languages distinguish more sounds than others. Japanese and Chinese are famous for not distinguishing “r” and “l”, or Continental Europeans for having difficulty with the English “th”; but have you considered that English has about twice as many vowel sounds as our alphabet is equipped to represent? Or that Finnish and Turkish distinguish between rounded and unrounded vowels, and English does not? Asian and some African languages are well-known, in addition, for distinguishing between some words solely by tone, or pitch. George Bernard Shaw already played with phonetics issues in “Pygmalion”, but can you use them for your own story purposes?

Like the realm of meaning, the realm of language draws more or less arbitrary divisions; any speaker of a given language will recognize some areas as different sounds, and will not recognize the difference between others. Sounds that speakers consider different are phonemes in a given language. Every language distinguishes units called “phonemes”, sounds that are treated as the same sound. Most human languages use between 11 and over 30 distinct phonemes. Speakers of one language may have difficulty distinguishing some phonemes in another language, as Japanese and Chinese speakers have difficulty distinguishing /l/ and /r/, or many Europeans have difficulty distinguishing English /s/ and /th/. It appears that different languages distinguish more vowels and consonants than others; Polynesian languages are well-known for distinguishing /k/, /p/, /m/, /n/, /l/, but not other consonants, while some languages, such as French, German, and especially Hungarian and Turkish, distinguish rounded and unrounded vowels (/o/ from /ö/, /u/ from /ü/, etc.), which English speakers may have difficulty keeping straight.

One of the first mistakes a language builder can make is to confuse a writing system with the basic sounds in a language. Repeat after me: they are not the same things.

Languages are not based on alphabets. I once had in my possession a “Vulcan Language Guide” produced by some group of Star Trek fans. They first wrote that Vulcan is written in a syllabary, rather than an alphabet ... then produced a list of syllables, transliterated in an alternative alphabet. I couldn’t read any further.

A writer can do every other kind of research, and still have a simple foible such as a one-to-one correspondence between the English alphabet and a constructed alphabet. Clive Cussler came close to this, in the opening pages of *Atlantis Found*: he published a table in which progressive combinations of geometric figures – symbols used by the lost “Amenes” – matches the sequence of the English alphabet, with some omissions.

Mild variations in phonemes always occur in different places – the beginnings, middles or ends of words, or after some consonants and not others – and these are called allophones.

Linguists who analyze speech distinguish phonemes by comparing words that are alike, except for one sound. The International Phonetic Alphabet offers a tool for recognizing and analyzing speech in this way. Different sounds that are treated as the same sound, but always occur in different places – the beginnings, middles or ends of words, or after some consonants and not others — are called allophones. Different languages distinguish different phonemes. A chart that showed how children distinguish between more and more sounds, as they get older, would closely resemble a chart showing how some languages distinguish between sounds that speakers of another language consider the same. Speakers of one language may have difficulty distinguishing some phonemes in another language, as Japanese and Chinese speakers have difficulty distinguishing /l/ and /r/, or many Europeans have difficulty distinguishing English /s/ and /th/. You may or may not be aware that English generally distinguishes ten or twelve vowels, compared to five vowels in most Continental languages; or how many more rounded and unrounded vowels Finnish or Turkish have than English. It appears that different languages distinguish more vowels and consonants than others; in fact, different languages have different total numbers of phonemes, which is why Polynesian languages are well-known for distinguishing k, p, m, n, l, but not other consonants. Asian and some African languages are well-known, in addition, for distinguishing between some words solely by tone, or pitch. You may wish to decide how far your subject language goes in distinguishing between sounds, and decide in this way how many phonemes make up your phonetic system.

Phonetic Fallacies

In Robert Heinlein’s novelette, “Gulf”, and in Samuel Delany’s novel *Babel-17*, protagonists discover logically-constructed languages built up from phonemic roots (rather than from arbitrary syllables). The problem with this is that the least number of fundamental concepts in a language is a few thousand, greater than the largest number of phonemes by at least two orders of magnitude. (Most human languages use between 11 and over 30 distinct phonemes.)

Jack Vance, in his novel *The Languages of Pao*, seemed to think that sounds influenced attitudes:

“The syllabary will be rich in effort-producing gutturals and hard vowels. A number of key ideas will be synonymous; such as pleasure and overcoming a resistance – relaxation and shame – out-worlder and rival. ...

“Another area might be set aside for the inculcation of another language ... In this instance, the grammar will be extravagantly complicated but altogether consistent and logical. The vocables would be discrete but joined and fitted by elaborate rules of accordance. What is the result? When a group of people, impregnated with these stimuli, are presented with supplies and facilities, industrial development is inevitable. ...”

Jack Vance, *The Languages of Pao*, pp. 58-59)

Writing Systems

As to writing systems: if your target language is a written one, the written form may be ideographic, syllabic or alphabetic – your choice. But the alphabetic form will be simplest. If you are working up an alphabet unrelated to the Latin or Greek ones, you may wish to go right back to the earliest picture-writing and decide what pictures to modify into letters – and how.

It used to be asserted that the earliest writing systems were logographic, or ideographic – one symbol stood for one idea, or word, at a time, and sometimes the same symbol meant different things in different context. In places such as Egypt or Babylonia, there gradually evolved a syllabic system, if words generally consisted of one consonant plus one vowel, repeated any number of times; and alphabets appeared after syllabaries.

(There is a new thesis that a system of trading tokens, geometric shapes arbitrarily signifying traded goods, was used in the Middle East from Neolithic times; and this, actually, evolved into cuneiform and hieroglyphics. For what it's worth.)

There are signs that such systems developed in Mohenjo-Daro, in western India, and also on Rapa Nui (Easter Island). But the remaining inscriptions have not been deciphered.

Ideographic writing is still used for Chinese and Japanese. It represents a challenge to the student because he or she must learn thousands of signs, one for each new word, even if many signs are developed from simpler ones.

A step towards a simpler system was taken in the Fertile Crescent, in Egypt, in Mesoamerica (as we have recently discovered), and in the 19th century for writing Cherokee. This system was the syllabary, a system in which one sign equals one syllable. For languages such as Cherokee or Hebrew, in which words are mostly built of compounded open syllables, this is entirely appropriate. The set of symbols can be reduced to about 60.

But for many languages, such as pre-Mycenaean Greek or modern English, a syllabary simply doesn't answer. An alphabet has to be developed, because there are so many consonant clusters and other exceptions to the open-syllable rule.

Various alphabetic systems were independently invented; those invented in Thailand, Korea, and India are still in use today. There is a move afoot to write Japanese entirely in a phonetic, rather than the current system (a mixture of Chinese ideograms and two syllabary systems). Some alphabets were devised that have not survived, for example Ugaritic cuneiform. However, most modern alphabets derive from the classical Latin and Greek alphabets; they and several other alphabets derive ultimately from a Punic (Phoenician) alphabet. The number of letters in an alphabet, like the number of phonemes, can range from 11 to over 30.

Most of us have heard the phrase “phonetic writing” at some point, as if some writing system represented the sounds of language more objectively than a given alphabet. In fact, the International Phonetic Alphabet offers a tool for recognizing and analyzing speech in this way. Linguists who analyze speech phonetically distinguish *phonemes* by comparing words that are alike, except for one sound.

Out of perhaps 8,000 languages on the Earth, an undetermined number have yet to be recorded in writing. Of all the major languages in the world, the vast majority are written in alphabets, systems in which one sound equals one sign, usually. Modern languages vary a lot, in their spelling system, from the way they are actually pronounced. Modern Spanish and Polish are relatively phonetic; Modern English, French, and especially Scots Gaelic are much less so. Apparently languages must change over time, and the longer ago the spelling was standardized, the more differences it bears to the spoken form.

If your target language is a written one, the written form may be ideographic, syllabic or alphabetic — your choice. But the alphabetic form will be simplest. If you are working up an alphabet unrelated to the

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Logographic Fallacies

A number of odd notions about natural and constructed languages have centred around phonetics, and around writing systems. Since at least the 16th or 17th centuries numerous idealists tried to work up complicated, ideographic writing systems as an international language of peace, the same way Esperanto was conceived in the 19th century. Perhaps the closest that any came to success was Blissymbolics, conceived after the Second World War – in the sense that it found a practical use, for symbol-boards that facilitated communication for children with neurological problems such as multiple sclerosis. (Why no universal-language schemes really took hold is a matter I will take up later in this article.)

Morphemes

Different languages have different rules for combining phonemes to generate words. You will want to decide, then, how simple or complex are your language's rules for generating words from its stock of phonemes. Some languages build words almost exclusively from basic syllables, e.g.

Open Syllable

C + V (Consonant plus Vowel)

Closed Syllable

C + V + C

Chinese is famous for restricting many words to single syllables, and Japanese and many Polynesian languages for building words mainly from open syllables. Thus English loanwords such as "baseball" became *besiboru* in Japanese. Vowels had to be inserted to make the word pronounceable.

Some languages (such as English) build many words with consonant clusters, e.g.

C (+ l / r / w / y) + V (+ l / r / w / y) (+ C)

English, German and some Slavic languages are famous for consonant clusters, which are often difficult for foreigners to pronounce. Such languages have rules defining which consonants can be combined, and in what order. Such languages have rules defining which consonants can be combined, and in what order. You will want to decide, then, how simple or complex are your language's rules for generating words from its stock of phonemes.

Lexicon (or Vocabulary)

Mostly, SF writers have been concerned with the way that different languages make ideas and comprehension possible, or impossible. Numerous attempts have been made to construct languages to promote a wider or more rational range of thinking, notably Loglan or Lojban. Probably most of us have sometimes felt that conventional language does not capture, or permit, some concepts; from time to time, science fiction and fantasy languages are constructed to introduce a new concept, such as *mu* (neither yes nor no, but "wrong question"); *po* (a logical alternative outside the normal train of thought);

mathom (a gift you give on your birthday); *grok* (to comprehend something to the point of identifying with it); and so on.

Numerous attempts have been made to construct languages to promote a wider or more rational range of thinking, notably Loglan or Lojban. Mostly, though, concepts are captured and represented by vocabulary rather than grammatical structure, which is why English has borrowed words and phrases from so many other languages.

During my own classes in linguistics (1976-1983) I was given a story that tests had been conducted on children from two ethnic groups, English and Navajo, to gauge their comprehension of some key concepts (time, distance, causality, etc.) The net result of these tests, however, was that nothing affected the students' comprehension level so much as the vocabulary available to them; and vocabulary is the level of language that most easily changes, and gains new material. (You may want to take this story with a grain of salt. I can offer no citation or source for this story, and without it, this story might as well be an urban legend.)

The Sapir-Whorf Hypothesis

Mostly, SF writers have been concerned with the way that different languages open, or close, options for ideas and comprehension.

“Think of a language as the contour of a watershed, stopping flow in certain directions, channelling it into others. Language controls the mechanism of your mind. When people speak different languages, their minds work differently and they act differently. ...”

Jack Vance, *The Languages of Pao*, p. 48)

Perhaps the best place to start, then, is at the level where vocabulary and meaning interact: the level of words. About the time that JRR Tolkien was writing *The Lord of the Rings*, two other linguists, Sapir and Whorf, were developing the hypothesis that the languages we speak shape the thoughts that we think – perhaps dictating what thoughts we can think. (Well, yes, some languages have words others do not.) This was an ongoing source of controversy from its inception until the present.

Awareness of the Sapir-Whorf hypothesis shows up in unexpected ways in SF. One of the clearest examples comes from *Uller Uprising*, by H. Beam Piper:

“Do you speak the Kragan language, general?” she asked. “I understand it’s entirely different from the other Equatorial Ulleran languages.”

“Yes. That’s what gives the Kragans an entirely different semantic orientation. For instance, they have nothing like a subject-predicate sentence structure. That’s why ... they are entirely non-religious. Their language hasn’t instilled in them a predisposition to think of everything as the result of an action performed by an agent. And they have no definite parts of speech; any word can be used as any part of speech, depending on context. Tense is applied to words used as nouns, not words used as verbs; there are four tenses – spatial-temporal present, things here-and-now; spatial present and temporal remote, things which were here at some other time; spatial remote and temporal present, things existing now somewhere else, and spatial-temporal remote, things somewhere else some other time.”

(Piper, *Uller Uprising*, New York: Ace, 1983)

Notice that Piper is attributing to a language's structure the way that it shapes thought. It does appear that the most distinctive, enduring feature of a language is its structure: its program for presenting information, or inviting a response, or whatever; its grammar. Robert Heinlein exhibited a similar awareness in his own way, in *Between Planets*, in *Citizen of the Galaxy*, in "Gulf", and in the famous *Stranger in a Strange Land*. However, it is questionable whether Heinlein quite demonstrated the role that language might have on shaping thought. In fact, for about a decade his word "grok" was used as a pop synonym for "to understand", and then it disappeared.

Leaving entirely aside the unlikely languages of Pao and Uller, I recall being taught that experiments in the 1960s showed children of highly dissimilar language communities were entirely capable of learning foreign distinctions of shape, or colour, or grammar – English versus Navajo children, for example.

Perhaps the best, unstressed example of a foreign, even alien way of thinking appeared in Austin Tappan Wright's *Islandia* – a good few decades before the Sapir-Whorf hypothesis came out. *Islandia* described a fictional, contemporary country in late Victorian or Edwardian times, a Caucasian but pagan country somewhere in the Southern Hemisphere, with an independent culture and language; the language was distinguished by four words for "love", *ania*, *amia*, *alia* and *apia* – respectively, loving friendship, love of place, sexual love, and love of something I forget.

Another lesson from linguistics (and another for which I have no supporting evidence at the moment) bears on this theme: different languages do, in fact, make different distinctions, even between matters of concrete, direct experience.

Kinship terms, and colour terms, may be some of the vocabulary most given to creative variations between languages. Northwest Coast Indian languages, I am told, generally had a word for a male head of family, but it did not necessarily mean "father"; it might as easily mean an uncle, or a brother – if that male relative had the right to give women of the family to outsiders, in marriage. Even languages as closely related to each other as English and French have significant differences in meaning for the same terms; for instance, *bleu* may mean, not precisely "blue", but a sort of aqua blue-green. The fact that areas of meaning such as "snow" or "love" are usually undivided areas, for speakers of English and other European languages, ought to be a clue to us, and a source of story ideas.

Perhaps more to the point is the difference between words and phrases for the same meanings.

In Biblical scenes, such as the angels appearing to shepherds at night, archaic phrases appear such as "Fear not", which in contemporary English would be phrased "Don't be afraid." Another story I was told about Japanese, which I wish Stephen Kawamoto or someone would clarify, is that a whole host of adjectival phrases in English are similarly translated by single verbs, in Japanese.

Again: In English we tend to think there are just five categories of inquiry, because we have five main interrogative words: what, when, where, who, and why. Other languages such as Latin, though, can have a dozen or more, which we have to translate by phrases such as "in what manner", "by what right", etc.

Again: different languages have, not just different words, but different connotations for some fundamental words. Take "peace", for instance. In English we take this to mean "no conflict". I have been told, though, that the Russian gloss *mir* actually means "defended fort" – which casts quite a different complexion on what Russian-speakers conceive to be peace. The Arabic gloss, *salaam*, is related to *islam*, "submission"; in fact the world map could be redrawn into two parts: *dar al-islam*, "the abode of Islam/peace/submission", and *dar al-harb*, "the abode of war". What does this imply?

Maybe overlooked possibilities, as when conducting an investigation. Imagine (if you will) that a viewpoint character is suspended in the middle of a hollow sphere, the inner surface of which represents everything he sees, hears, feels, smells, tastes, and remembers. (Call this a "sensorium" if you want.) The point I am approaching is this: speakers of different languages signify different areas of the sensorium with the words that are supposed to translate each other, and make different dividing lines in the sensorium, depending on the languages they speak.

If something to ask about just doesn't appear on your horizon ... then you can become the victim of your own thinking; of overlooked possibilities. As witness the victims of last September's suicide bombings.

The fact seems to be that a difference in the way we think is often a difference in vocabulary. The vocabulary of a language is precisely the most easily changeable part of a language.

The way we use language, though – the words we usually use, the constructions we are used to making – that can be difficult to change. Sometimes you have to wonder what habits promote the continuing violence in places such as the Middle East?

Word Magic

As to the uses of language, and of writing ...

It takes real work to write fantasy, these days, without featuring some form of magic in the story, and a lot of notions of magic have centred around signs and letters. I've written elsewhere about the essential arbitrariness of these magic systems, from Qabalah and numerology through rune magic to, I don't know, Hindu esotericism, maybe. But I confess I have been studying runes myself. Probably has something to do with reading Tolkien at an impressionable age.

Perhaps one of the best representations of the spirit of runework is in the first and fifth books of Ursula LeGuin's Earthsea series, although in that story universe, runes are apparently logographs rather than alphabetic symbols. Another good description is in the second book of Barbara Hambly's Darwath trilogy, where Ingold Inglorion draws all the Darwath runes for his apprentice, once. Just once.

For a long time European thought on language, as on many other things, was heavily influenced by Biblical accounts. Because of the story of the Tower of Babel, and of the confusion of tongues – and (I think) because Europeans experienced a similar confusion of tongues as the Roman Empire disintegrated, as Latin evolved or disappeared, as new languages became the common tongue – there was a preoccupation with "the original language".

There was also an occult tradition that in the beginning of time, all Creation spoke one language. I say "occult" because it was usually magicians, or wannabes, that kept this up; and perhaps in memory of this, or perhaps just to be obscure, magicians usually recited spells and incantations in unknown tongues, sometimes Latin but sometimes Hebrew. (Or Old Norse, or Welsh, or whatever, these days ...)

There is also an occult tradition that John Dee, celebrated wizard in the reign of Elizabeth I, spoke with angels and learned their language. Those interested in pursuing this might search under terms such as "Enochian Keys". At least one article on Enochian (which I cannot locate now; it may have first appeared in Fate magazine) also considered it an original language, most obviously related to modern Semitic languages.

This tradition is recalled in the quasi-religious, quasi-SF novels of C.S. Lewis: *Out of the Silent Planet*, *Perelandra* and *That Hideous Strength*. In Lewis' story universe, all created beings once spoke the same language, which his viewpoint character only learns after being abducted to Mars; it develops that all planets harbour speaking beings, but only Earth has fallen sway to the Satan, and has suffered the confusion of tongues.

This "divine language" tradition is also recalled in the Earthsea fantasies of LeGuin, beginning with *A Wizard of Earthsea*. In this story universe, there is one unifying institution, a college of wizards who learn the original language, in which spells can be cast. LeGuin bases magic in this story universe on the widespread folk belief in true names: to name something by its true Name is to call it, and to control it, and to know its nature. Only dragons still speak the true speech, as a form of communication. Humans speak a derived, descendant language, common Hardic, and blond northerners in Kargad speak a less closely related language.

The handling of the Sapir & Whorf hypothesis was not distinctly better than the rather poor understanding of linguistics shown by some authors.

There are many myths about the reasons why different people think and act differently, and why that seems to be associated with the language groups they come from.

F. Ogden showed that English has a "core" vocabulary of some 850 words, and several technical or occupational vocabularies of a few hundred words each. But because of the way English has, of employing the same word as a noun, a verb or a modifier (e.g. "floor", the thing you put your feet on; "flooring it", pressing the accelerator to the car floor; etc.), I suspect most other languages would require at least a 1600-word basic vocabulary.

Language Change: Synchronic and Diachronic Analysis

"Synchronic" refers to things occurring at the same time, such as contemporary languages; "diachronic" refers to things occurring at different times, such as Old, Middle and Modern English.

When the study of languages properly began, it began as philology, the study of the changes in languages, and their history. Europeans were well aware of the descent of Romance languages from Latin, and of languages like English, Dutch and German having a common source. But we owe the modern understanding of Indo-European languages principally to Sir William Jones, an 18th-century Briton who lived and worked in India, studied Sanskrit, and established its relationship to Greek and Latin.

Since that time philology has evolved into linguistics, a more general study of how languages work, if work isn't too strong a word. Quite apart from having "family" relationships, languages tend to fall into groups depending on how their grammar works: there are inflecting languages, such as Latin, classical Greek, the ancestors of the Germanic languages, all of which depended on word endings to make sentences meaningful; isolating or positional languages, depending mostly on word order in sentences; and there are agglutinative and incorporative languages, such as Finnish and Inuit respectively. Words are not single morphemes, but long strings of morphemes, in Finnish. In incorporative languages, such as Eskimo, so many morphemes are included in one word that it may be a complete sentence.

Slowly, over the course of time – over two thousand years – inflecting languages such as Latin and proto-Germanic turned into the largely positional languages of modern Europe; but they retain systems of endings for verbs and pronouns. It may be that isolating languages generally develop into

agglutinative languages; it may be that an agglutinative language will eventually develop into an inflecting language, like Latin, Old German, or Old English.

If you develop a language far enough, you may wish to develop its history, its development and its relations with other languages. This has been taken furthest by Tolkien, perhaps, but other writers, such as Lawrence Watt-Evans and R.A. McAvoy, have also gone pretty far in this direction.

I mentioned above that tracing the descent of languages led to the development of modern linguistics. You may or may not be aware of the work that has gone into establishing the relationships of Asian, African, South American, or First Nations languages, quite apart from the Indo-European family of languages.

In fact there is now a controversial theory that **all** languages can be traced back to an ultimate original. One Merritt Ruhlen has made a case that even today, we can still piece together the entire family tree of human languages, even if we start with no more than the vocabulary of currently recorded languages in the world, and use just the same procedures that led to the discovery of the Indo-European family.

Morphology & Syntax (versus Grammar)

It is very easy to make the mistake of transposing English grammar wholesale into an invented language. But modern English is the product of enormous changes and innovations, far more even than languages such as Polish or Spanish have experienced, in the last millennium.

Some native English speakers have a hard time with the concept of "grammar", as though it were a body of arbitrary, artificial, rules imposed on natural speech. Actually, we already all have a grammar for English. The problem seems to be that grammar is not taught as a description of how people actually communicate, but as a set of prescriptions; or that grammar is taught using formal and unfamiliar terms. To some degree this is unavoidable.

Different languages, as I said earlier, fall into different classes, according to how they function grammatically. Linguists distinguish two parts of grammar, morphology and syntax. The technical difference between morphology and syntax is the difference between word endings, or affixes, and word order, or sequence in a sentence.

A few universal features of human syntax have been discovered. One is that word order is important in a sentence, if it is to mean anything at all. The English sentence structure (Subject, or actor, followed by Verb, followed by Object acted upon: S-V-O) is not universal, and historically is rather recent. Both modern German and classical Latin show the syntactical structure Subject - Object - Verb. Some languages, such as Welsh, begin with the Verb, followed by the Subject. Very few languages begin a sentence with the Object. (Yiddish speakers are free to contradict me.)

Pidgins, Creoles, Lingua Francas

Considering all the tasks that a grammar has to perform, you may find it far easier to structure a lingua franca for your purposes than more grammatically complex language. (Sometimes I think we ought to do that for Vancouver as a whole, given the number of different language groups we have in the city.)

Where two or more languages come into occasional contact, as in Africa and the Pacific Northwest until the 19th century, trade languages, or a lingua franca, will spring up.

One of the results of the colonial era was that, after people around the world came into contact with Europeans, some kind of trade talk emerged. Technically these are called “pidgins”. Chinook Jargon, a trade language used all up and down the Northwest coast, is an example of a pidgin. An alternative designation is “lingua franca”, after the original lingua franca that developed between various peoples trading in the medieval Mediterranean.

Often these show a combination of words from varied sources, a rather simplified grammar, and a greater dependence on syntax than morphology. When nobody speaks such a language as their native speech, it is considered a patois; when people are raised speaking it, as in parts of the colonized world, it is a creole.

Pidgins become “creoles” when people grow up speaking them as native languages, and there are any number spoken in former colonies, where two or more languages came into contact that were mutually incomprehensible.

The first thing you notice about pidgins and creoles is that words from two or more languages are simplified to the most basic phonemes available. The second thing you notice is that the grammar seems simplified, too.

Parenthetically, it might interest you to know that English, French, and many other European languages seem to have been creoles at some point in their past. This is not a controversial revelation; it is fairly well established that Anglo-Saxon, or Old English, abruptly became a second-class language, nearly a thousand years ago ... lost its status as a language for worship, for literature, for law ... and went far to becoming a creole, gaining an enormous vocabulary from French and losing much of its declension and conjugation system in the process. I think I’ve seen traces of camp Latin in French, and signs of the phase when it was a creole, not yet a language of science and literature.

Whaddaya Mean, “Just Semantics”?

In linguistics, "semantics" is "the meaning of meaning". In common parlance, "semantics" is apparently used to mean "pointless quibbling about what you meant and what I understood."

“A fact means what it means. There it stands,” Jeremy waved his arms ... “There it stands, self-demonstrating.”

“No, Mr. Collingwood. A ‘Fact’ is not a thing, a noun; it is the past tense of a verb. *Factum est*. A dynamic word, not a static one. *Facto*, I make. I create. ‘*Fact*’ was not used as a noun until the Late Middle Ages; and, when it was, it meant ‘an accomplishment,’ ‘something done,’ like the French *fait* or the Magyar *tény*. Or our English word *feat*. And ‘Fact’ retained that meaning of ‘Feat’ even in English until the early 1800s. When Jane Austen wrote ‘gracious in fact, if not in word’ what she meant was ‘gracious in deeds, if not in word.’”

“That’s semantics,” Jeremy objected.

“Ah. Then, at least we agree on how important the issue is.”

“I beg your pardon?”

“Semantics is the science of the meaning of words. ...”

(Michael Flynn, *Country of the Blind*, p. 254)

Now consider the language of this essay. An English sentence generally consists of a subject, usually an agent, and a predicate, something the agent is, or is doing, or experiences. Right away, there are some levels of implication to consider. ...

Languages such as English attach some meanings to words as soon as they attach word endings, if not before. European languages generally attach number (singular or plural endings) and gender (male or female) to nouns, although English has given up signifying gender in many nouns; attached adjectives, pronouns, and dependent verbs are all required to display the same number. Inflected languages such as Latin and Greek required nouns and adjectives to agree in case, which meant endings that signified "this word is an active agent", "this word is something acted upon", "this word is an instrument", and so on. Verb endings could indicate number, and person (I, we, thou, you, he/she/it, they), as well as the point in time of an action, or how you were looking at it (from past or future, from active or passive perspective, or in a commanding or exhorting or hypothetical mood).

On a deeper level, semantics studies the parts of meaning we generally take as an unbroken whole, in every word, until we split hairs by choosing one word rather than another. "Friend" as opposed to "love", for example; "opponent" versus "enemy"; and other shades of meaning.

Some of these issues are as much issues of culture as they are matters of speech. Consider the tragedy in Gardner Dozois' novel, *Strangers*. A human expedition sets up an embassy on a world of humanoids, and one of the humans meets and falls in love with one of the women on the planet. So far, this might be a story out of any episode of *Star Trek*. But after they marry, when he suggests they have children, she turns strange and cold, and finally – as she is about to give birth – he learns the riddle of this other world: all women die in childbirth. Asking to have children *means* telling her he no longer loves her. And no-one *tells* him; he doesn't get a clue until too late.

#

My Hobby Horse: Call It "Idiom"

By "idiom" (in quotation marks) I want to signify the way words and expressions are used in a given language. (Yes, I know this isn't right, but I don't have the proper term right now.)

A citation or two from *The Dispossessed* will illustrate my point: Shevek, a physicist from a planet of anarchists, has to get used to some turns of phrase in the "archist" country he visits on a sister planet; a doctor says "Is he sure he didn't get hurt?", meaning "you" but saying "he"; more significantly, Shevek's language uses articles ("the hand hurts me") instead of personal, possessive pronouns. LeGuin borrowed the first feature, the third person as the polite form of address, from Polish and Church Latin; the second, from contemporary French.

In fact we don't even have to go outside the English language for examples of "idiom". The common English phrases "Excuse me?" or "I beg your pardon?" mean *nothing* like what the words mean. At the very least, they mean "I don't understand"; or with an indignant intonation, they mean "Just *try* and excuse *yourself!*"

Anyone who has studied another language, particularly one related to his or her own, will have been struck by the way very similar words and phrases take startlingly different meanings. It isn't just a matter of occasional phrases that pop up and, mystifyingly, mean something you could never guess from the words alone ("going too far", "getting high", "twisted", etc.); when grammatical features and whole classes of words such as pronouns are used, or unused, as differently as in English, French and Polish,

something more is going on ... something which, for the moment, I call “idiom”. Can striking turns of “idiom” be used for your story purposes?

#

Constructed Languages – from Esperanto to Talossan

Some people have been inventing artificial languages since at least the Middle Ages. The purposes have varied, from aiding international communication, to promoting rational thought, to achieving world peace and understanding. Some constructed languages make fewer assumptions than others, and some make more; compare Esperanto, for instance, which basically takes well-known Romance, German and international-vocabulary words and assimilates them to a phoneme-set almost anyone can pronounce, with Loglan and Lojban, for which students have to learn an invented vocabulary.

Esperanto

There had been many attempts at constructed languages for idealistic or practical purposes before Esperanto, from *Latine sine flexione* to *Volapük*. Ludwig Zamenhof, living in a Polish village with five language groups in the last decades of the 19th century, constructed essentially an Indo-European language with simplified phonemic system, an extremely consistent word-building system, and a grammar simplified to one plural marker and one object-case marker. This makes conjugations easier to grasp, and word formation very easy and obvious. On the one hand, Esperanto hasn't swept the world; on the other hand, Esperanto gained an international following of several millions, unlike Volapük or Interlingua.

Zamenhof laid down just sixteen official rules for Esperanto, although a professional linguist studying published Esperanto books and periodicals would probably observe dozens, or even hundreds of grammatical behaviours. The official rules are ...

Loglan and Lojban

If I may cite Donald J. Harlow (2000) at length:

In the late fifties a constructed language somewhat out of the mainstream, as we have described it, appeared: James Cooke Brown's Loglan. Loglan is a language that in many ways harks back to the older a priori languages, not to the "naturalistic" projects that have characterized language construction in this century. Unlike the other languages discussed here, Loglan does not appear to have been originally intended as an international language, although some of its proponents have touted it as such throughout its lifetime, not excepting, recently, its inventor. Its original purpose seems to have been to test the Sapir-Whorf Hypothesis.

The Sapir-Whorf Hypothesis, codified by linguist Benjamin Whorf, in its most extreme and simplistic form states that human behaviour is determined by the structure and lexicon of the language in which the person in question actually thinks. To illustrate: a person whose language contains no word for falsehood cannot tell a lie; he cannot even understand the concept. The idea has been a popular one for many years, especially with science-fiction authors; it formed the basis of Jack Vance's excellent science-fantasy *The Languages of Pao*.

Loglan might actually be a good language to test this hypothesis; it differs considerably from those languages with which we are all familiar. Originally, it was created as a shake-and-bake tongue from the

five most spoken languages in the world (Chinese, English, Hindi, Russian, Spanish); the resulting construct was interesting. It was not, however, particularly fruitful; no actual test of the Sapir-Whorf Hypothesis using Loglan was ever carried out, for reasons given below. Furthermore, most modern linguists deny the validity of Sapir-Whorf, and would probably be unwilling to fund a major test of the hypothesis. Fortunately for Dr. Brown and his successors, his solution looking for a problem encountered a problem looking for a solution: the international language problem.

A minor Loglan movement, encouraged by a widely read article about the language (24), developed in the sixties and, to some degree, persists even today. But the language has two major problems.

First of all, Loglan is so complex that it is unlikely that it will ever be viable as a spoken language. Since a valid test of the Sapir-Whorf Hypothesis would involve raising a child, or children, in a strictly Loglan-speaking environment, at least a few Loglan speakers able to handle the language as easily as they speak their own native languages are a necessity; but to my knowledge the language has never actually been used for free-wheeling conversation by anyone, including the inventor. A friend of mine once asked Dr. Brown about this; he is reported to have replied, proudly, that "we once sustained conversation in Loglan for fifteen minutes." (25) The author of the language, scarcely more optimistic, himself writes: "In 1977-1978 the competence of four early (sic) speakers was attested by their ability to sustain daily conversation in Loglan unaided by English for 45-minute periods over intervals from two weeks to 30 days. ... At least two other competent speakers, one self-taught, the other taught by one of the original set, have since been identified; and an unknown number of users have taught the language to themselves." (37) This achievement is somewhat muted, however, by the recognition that "because of the low geographic density of the loglaphone population, no true speech-communities have formed; so there are still no fluent speakers of the language," (38) though the experience of at least Esperanto would tend to show that the lack of a geographically oriented speech community will not hinder the development of fluency in an easily learnable language.

Secondly, despite a complete lack of speakers, the Loglan movement has already undergone schism, and for much the same reasons as the Volapük movement in its time. Dr. Brown claims copyright authority over the language; a splinter group in Fairfax, Virginia, has developed its own version of the language, called Lojban. Both groups publish newsletters, which at last report appeared almost completely in English. That of Dr. Brown's Loglan Institute in Gainesville, Florida, is relatively professional in appearance, but not too thick and generally representative only of his own viewpoint; that of Mr. Bob LeChevalier in Fairfax is massive, rather amateurish in appearance, represents several different viewpoints (including that of the Esperantists), and usually contains pleas for funding. The recent conclusion of a court trial over the right of the Fairfax group to use the name "Loglan" -- the result was favourable to the Lojbanists -- has not, it seems, resulted in any change of name of this latter language, since it now appears to be better known and advertised than the original.

I want to argue that artificial languages are somewhat beside the point. If the critical issue between people is to facilitate communication, then the stumbling block to communication is that different people use language in different ways, to accomplish different purposes. Idiom, in other words.

Restrictive Structure

An odd argument about morphology, specifically about highly inflected languages, is that they are resistant to change, or reinforce logical relations. In a society such as David Brin's "Uplift" civilization, which stresses order and authority and rationality to the point where "client" species can be in debt-bondage to "patron" societies for tens of thousands of years, several constructed languages are used and promoted to encourage reason. Coming out of that background, what would a character make of the highly-inflected, but illogical languages of pre-industrial Earth?

Talossan

Like some other micronations, many of which have an Internet presence, the Republic of Talossa has its own language.

... Talossan is a language which evolved from mixed Anglo-French-Spanish roots, beginning in 1980. Today, Talossan represents in many ways a "best guess" as to how Latin, as spoken in Carthage and other cities of Roman North Africa, would have evolved had it been carried across the Atlantic to the Talossan area by prehistoric migrants. For more info on the Talossan language, there are a number of excellent sites to choose from. The original *Páxhinâ dal Casâ del Glheþ Talossán* or "Home Page of the Talossan Language," contains a historical description of Talossan.

La páxhinâ da casâ dal Comitâ përl'Útzil del Glheþ is the official homepage of the CÚG--the "Committee for the Use of the Language," which oversees the Talossan language and its development. The excellent Talossan language pages, maintained by RT citizen Tomás Gariçéir, are actually written in Talossan and contain a ton of further links. The King and Gariçéir are the country's two most fluent speakers, and during the latter's visit to Talossa in early 1998, the two managed to sustain a conversation entirely in the Talossan language for about half an hour.

While most citizens do not speak Talossan, the language serves as a patriotic symbol and as a fount of patriotic terminology; most Talossans are familiar with words like "*Cosâ*," "*Cestoûr*," "*Regipäts*," and others which have passed from the Talossan language into the Kingdom's unique dialect of English. Some translations (such as the entire Biblical epistle of James) and a number of poems have been written in the Talossan language. There is a 25,000 word dictionary and a 100-page official grammar of the language.

(from www.talossa.com, ca. 1998)

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Imaginary Languages in Fantasy & Science Fiction

"Anglic" is a term that cropped up in several science fiction universes. As used in Jerry Pournelle's *CoDominium/Empire of Man* series, Anglic is one of several survivals of 20th-century languages into the Third Millennium (including Arabic, Gaelic, Russian and perhaps Turkish). As described in *Prince of Sparta*, Anglic is distinguished from English mainly by Japanese and Spanish loanwords, and by phonological changes such as the final -g dropping off of -ing words. Looking back on the previous history of English, we might expect Anglic to lose verbal inflections, and change many of its idioms, perhaps drastically.

Babel-17

Babel-17 was an artificial language, which appeared in Samuel Delany's book of the same name. Babel-17 was so designed that single phonemes represented concepts, the syntax and morphology incorporated a maximum of logic, and human minds exposed in the language found it irresistible because you could think so fast and so well in it; but it was subtly programmed, by an enemy government, to subvert anyone's loyalty to the Alliance (the side of the viewpoint characters). Babel-17 had no means of self-reference, no word for "I". Any reference to Alliance members, agents or property derived from a root meaning "those-who-invade".

Elvish

Elvish is the language J.R.R. Tolkien created. Apparently he wrote *The Lord of the Rings* and *The Silmarillion* to give it a context. Walter E. Meyers notes in *Aliens and Linguists* (p. 156) that “Quenya” is a highly-inflected language with rather flexible word order, and a structure basically typical of Indo-European. It is an article of faith that Elvish is based conceptually on Welsh.

Galacta

In Robert Heinlein’s future history, Galacta is an Indo-European language spoken by members of an interstellar society, largely reminiscent of Spanish. (In fact, references in his books *Expanded Universe* and *To Sail Beyond the Sunset* indicate that Galacta derives from Spanglish, a hybrid of English and Spanish.) An idiom demonstrated in *Time Enough for Love* (one of the few consistencies throughout the book, I think) is that the impersonal pronoun “one” is followed by the pronoun “she”. Conceivably the volume and speed of interstellar traffic in the society Heinlein describes is enough to keep Galacta fairly uniform, or at least commonly understood.

Hardic

Ursula LeGuin’s Earthsea cycle, set in a world of many small islands rather than unbroken continents, involves one lingua franca that developed from a dead, magical language, in which the name of a thing gives one power over that thing. In effect, mortal humans use one language for ordinary communication and another for magic. One or both of these languages is/are written in “runes”, which may be ideographic, and have the same powers as words. Only one region has a separate language: the Kargad Empire, home of a pale, blond, rather warlike ethnic group.

Interworld

In Larry Niven’s Known Space series, Interworld is apparently a positional language which effectively has replaced all national languages, some centuries after the 20th century; even Wunderlander, a Dutch-Norwegian-German hybrid once spoken in the Alpha Centauri system, has been supplanted. Again, this sort of development presupposes heavy interstellar traffic and communication.

Islandian

Austin Tappan Wright wrote a vast body of story fragments, eventually assembled into the novel *Islandia*, about a fictitious southern-hemisphere continent called Karain, with a Caucasian-appearing ethnic group at the southern extremity. Islandian he described as positional and uninflected, but he gives evidence of a plural suffix, *-ar* or *-ir*. He also gives evidence of words combining multiple morphemes at the speaker’s convenience, like Esperanto or even Finnish. Four different and distinct things have separate words in Islandian, for which English only has the one word “love”. *Fortlinamia* would mean something like “strong-good-friend”; *apiata* something like “my sex buddy”. *Alia* means something like “love of place”, or “love for my estate/company/enterprise.”

A pidgin language, spoken on the border Islandia shares with the land of the Bants, is described as compounded of varying parts of their respective languages.

Lingua Terra

In H. Beam Piper's future history, comprising several novels and short stories, the Third and Fourth World Wars leave the Northern Hemisphere largely uninhabitable, with the result that the industrial civilization that survives is based in Australasia, South Africa and South America. When this civilization develops an interstellar drive and begins colonizing other planets, its members speak a derivative of English, Afrikaans, Spanish and Portuguese, and are as apt to swear by Allah as by God or Christ. Federation citizens are also as likely to have names as Themistocles M'zangwe and Hideyoshi O'Leary, as Lourenco Marques or Liana Bell.

Martian

Different authors have conceived different Martian languages, of course. Perhaps everyone has heard of Heinlein's *Stranger in a Strange Land*, but only one word of Martian – “*grok*” – appeared in the novel. The story suggested that Martian allowed one to think better, even to develop one's psychic abilities.

In H. Beam Piper's story “Omnilingual”, Martian is a dead language, discovered when Terrans find the remains of a dead civilization on a dead world. At first, it appears that Martian will never be interpreted – there is nothing like a “Rosetta Stone” to give archaeologists a key to translating the many surviving texts. Then the Terrans discover the remains of a university, and of a physics lecture hall, featuring a table of the elements.

One archaeologist has already assigned arbitrary phonemic values to Martian symbols, producing pronounceable words; it was evident that Martian combined words and their parts as freely as, say, German. But now, they realize, they can interpret words like *rasthadavans sornhulva* to mean “of-metal matter-knowledge” – metallurgy, or metallic physics.

Pravic

In Ursula LeGuin's *The Dispossessed*, Pravic is an artificial language taken up on Anarres, the idealistic anarchist nation. The novel mentions that Pravic was designed by someone named “Farigv” with the aid of computers. It is not clear whether Farigv was one of the anarchist members of the Society of Odonians, although some features of idiom and of the lexicon point to this conclusion. Everyone receives at birth a computer-generated five- or six-letter name. Everyone can be addressed as *ammar*, which can mean either “brother” or “sister”. Children may call any adult who behaves like a parent *mamme* or *tadde*, depending on gender. Odonian anarchists are raised to believe “you can't have anything”, and rarely use possessive pronouns; one says “the mother”, or “the hand hurts me.” Farigv's computers did not understand the need for profanity; the word “damn” is borrowed from Iotic; the verb for making love only takes a plural subject; and the word for rape has taken on the connotations of the English word “fuck”.

#

When Language Fails – My Other Hobby Horse

Language doesn't entirely work.

That's a pretty sweeping statement, which obviously I have to substantiate.

Paul Carpentier once wrote in *BCSFAzine*:

One of the common beliefs I run across is that what you say actually means something different – or at least, it's interpreted differently – if it's presented orally, in person,

rather than on paper or via e-mail. I'm not impressed by that outlook. But I gather that it is a common outlook, and lots more people are prepared for oral communication than anything else.

At a critical period I must have related to books rather than people, so I absorbed how you impart and absorb meaning from writing, rather than from people and body language. Maybe it was rather the reverse, for you, and that may be why you enjoy real life meetings and I don't.

(Paul Carpentier, *BCSFAzine*, ca. 2001-02)

To which I replied

Garth's rule #4: Any positive statement that anyone says, someone will take negatively. In fact anything you say will be misconstrued, even bizarrely misinterpreted, by someone out there. I could go on. But the bottom line is, you should expect communication to fail; I'm surprised if you find that face-to-face communication generally works, better than anything else.

Summary

An invented language can represent any amount of work you might put into it. How much time is it worth? What are you really trying to accomplish?

If you were to do a really complete job, you would have to decide first how to produce a phonological system, whether as simple to pronounce as Hawaiian, or as complex as Gaelic, or Turkish. Count on handling anywhere from 12 to 36 phonemes., and a few rules for combining them; *actively decide* whether to include difficult sounds or combinations, knowing what decisions you may regret later.

Then you would have to decide how to produce a writing system, whether as simple as an alphabetic system – preferably not directly modeled on the alphabet you know – or whether as complex as, say, Chinese. *Actively decide* whether to include complex signs, or easily confused signs, knowing what decisions you may regret later.

Mainly, you have to produce a vocabulary. This is not as much a matter of free invention as you might think. For one thing, words are derived from roots, or give rise to derivatives – not always in the same category of meaning you might expect. For another thing, you will produce a grammatical system before you know it, or at least a derivation system.

Fundamentally, there are perhaps only as many basic grammatical rules in a language as there are phonemes; Ogden's Basic English came down to 16 rules of grammar. Considering all the tasks that a grammar has to perform, you may find it far easier to structure a lingua franca for your purposes than more grammatically complex language.

Finally ... projects like artificial languages are beside the point. If the critical issue between people is to facilitate communication, then the stumbling block to communication is that different people use language in different ways, to accomplish different purposes. Idiom, as I call it.

Bibliography

Anderson, Poul. *Kith and Maurai*.

-----. *Orion Will Rise*.

-----. *There Will Be Time*. in *Analog's Golden Anniversary Anthology*. New York: Davis Publications, 1981.

Brin, David. *Brightness Reef*.

Carroll, John B., ed. *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*.

Chomsky, Noam. (Anything that isn't political.)

De Camp, L. Sprague. "Language for Time-Travellers." (1938). Reprinted in *Analog's Golden Anniversary Anthology*. New York: Davis Publications, 1981.

de Camp, L. Sprague. *The Ancient Engineers*.

Delany, Samuel. *Babel-17*.

Dozois, Gardner M. *Strangers*.

Elgin, Suzette Haden. *Native Tongue* (I, II, III).

Elgin, Suzette Haden. *The Gentle Art of Verbal Self-Defence, et seq.*

Flynn, Michael. *In the Country of the Blind*. New York: Baen Books, 1990.

Gould, Stephen J. *The Mismeasure of Man*.

Harlow, Donald. * 2000

Heinlein, Robert A. *Between Planets*.

-----. *Gulf*.

-----. *Stranger in a Strange Land*.

Henning, Jeffrey : LangMaker.com - Invent Your Own Language

Kay, Paul and Willett Kempton. in *American Anthropologist* [86, 1984] pg 65.

LeGuin, Ursula K. *A Wizard of Earthsea, et seq.*

-----. *The Dispossessed* (etc.).

Lewis, C.S. *Out of the Silent Planet* (etc.)

Lojban (<http://xiron.pc.helsinki.fi/lojban/>)

Longyear, Barry B. *The Alien Papers*.

McEvoy, R.A. (Lens of the World trilogy)

Meyers, Walter E.. *Aliens and Linguists*. Athens, Ga.: University of Georgia Press, 1980.

Mythopoeic Society, The.

Ogden, Frank. *Basic English*.

Piper, H. Beam. *Little Fuzzy*. New York: Ace, © 1962.

----- *Uller Uprising*. New York: Ace, 1983.

Pyles, Thomas. *The Origins and Development of the English Language*. New York: Harcourt Brace Jovanovich, 1971.

Ruehlen, Merritt. *The Origin of Language*. New York: John Wiley & Sons, Inc., 1994.

Stirling, S.M. (*Prince of Sparta*, or the other novel, involving Anglic)

Stirling, S.M. *Island in the Sea of Time* & sequels

Tolkien, J.R.R. *The Lord of the Rings*.

Vance, Jack. *The Languages of Pao*. New York: Daw Books, 1958.

Wright, Austin Tappan. *Islandia*.

Zamenhof, et al. *Esperanto*.