

Sutra 6: The Limitations of Arbitrariness

6.0 Universal principles of Human Logic limit the arbitrary nature of Language – each grammar sets its own paradigms of forms (i.e., verb tenses and conjugations, declensions of the noun, word order, etc.).

‘It seems that many apparently arbitrary aspects of language can be explained by relatively natural cognitive constraints – and hence that language may be rather less arbitrary than at first supposed’
(Christiansen/ Chater: 2007)

Having identified the general principles of human Logic, and seen how its universal principles shape word mosaics through the synthesis of nexus patterns and determine word functions (relations between words) in them, let us now zoom in on the Logic of Syntax embodied in the ‘flesh’ (structures) of *live* sentences. The *grammaticality* concept is helpful here – it sets the standards of ‘correctness’

6.1 Grammaticality refers to whether a word-mosaic (sentence) complies with wantok group habits and rules of constructing word mosaics. In English, as in all languages, every sentence is a sequence of words, but not every sequence of words is a sentence (the sentence is always a nexus – a synthesis of what we speak about, and what we say about it). Word mosaics that conform to the conventional language-specific syntactic rules are said to be grammatical, and those, which violate the socially accepted syntactic rules – ungrammatical. Only grammatical sentences form meaningful mosaics.

Grammaticality judgments are objective – they are based not on individual perceptions, but on the language habits of the group (speech community).

Apart from the purely ‘formal’ social habits and preferences for word order in synthesis (nexus) and analysis (recursion), syntactic rules are also rooted in practical common sense. For example, the rule that a transitive verb (such as to ‘*have*’) must be followed by a direct object (i.e., a ‘dream’), and that an intransitive verb (i.e., to *sleep*) cannot take a direct object, etc. (how can you ‘sleep a baby/ bed’?).

Native speakers intuitively distinguish grammatical from ungrammatical strings of words because they are used to their wantoks’ habits. Second language learners, on the other hand, must learn foreign words and how to put them together in a foreign language.

Grammaticality refers only to the physical **form** of language structures, not to their logical sense; a sentence may be absurd, yet perfectly grammatical, i.e.:

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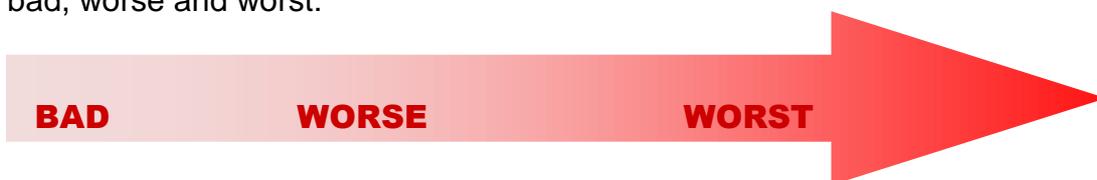
Mean-looking crocodiles in frilly pink underwear are dancing foxtrot.

In fact, we can even use non-words, and still put them in grammatical sequences, like in that Jabberwocky poem from Lewis Carroll's Alice in Wonderland:

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe.

These sentences seem to fill our heads with ideas – only we, like Alice, don't know what they actually are! Grammaticality does not depend on the truth of sentences either – lies and false arguments can have perfect grammar; it is purely our knowledge of language forms and structures that permits us to make grammaticality judgments (we measure the truth value of utterances by their relation to reality).

Grammaticality exists on different levels: syntactic, lexical and semantic, and some deviations from the norm are worse than others. Even though the wrong choice of words (lexical / semantic errors) may make something sound 'funny' or strange, we would still be able to make sense of what is said. But failure to connect the Subject (what we speak about) with the Predicate (what we say about the Subject) makes an utterance completely unintelligible. In other words, if the S/V/C structure is not properly synthesized, the statement becomes ungrammatical. So the degree of grammaticality can range between bad, worse and worst:



Lexical / Semantic problems: **BAD**

- By the time he was admitted, his rapid heart had stopped, and he was feeling better.
 - On the second day, the bad knee was better and on the third day it had completely disappeared.
 - The patient refused an autopsy.
 - The patient has no past history of suicides.
 - The patient expired on the floor uneventfully.
 - Patient has left his white blood cells at another hospital
- [The above examples are actual quotes from medical Emergency reports]
- Many young girls who cannot accommodate babies are pregnant
 - With education and support, people will be able to take actions to protect infections.

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- Sex education should be compulsory to make sure people know more so they don't put themselves in a situation that can be controlled. PNG needs to be educated: it's better to be safe, then sorry.
- I am quite aware of the situation the country is in and because of that the prices of goods are increasing.

[The above examples come from POMNATHS student essays, 1999]

Verb/Noun form error, etc.: WORSE

- People who have AIDS don't die straight away, but is said to have developed the HIV (Human Immune Virus).
- This bush medicine (Devil's Fig) is specified to cure natural pain, like backache, stomach ache, and many others. However, it is not recommended to be treated on children under 15, as it can affect their skin.
- AIDS is a serious disease that affect almost the entire life of PNG.
- These process should be repeated and consumed after 12hours if pain persists.

[The above examples come from POMNATHS student essays, 1999]

Broken Phrase Structure Rules – the WORST! These render utterances virtually unintelligible:

My dog white four years has.

Help you can him.

Hospital ended up the patient in.

Yes... ah...Monday ah... Dad... and Dad ...ah ... Hospital ... and ah ... Wednesday
Wednesday ... nine o'clock and ah Thursday ... ten o'clock ah doctors ... two ... two
... ah doctors and ... ah ... teeth... yah. And a doctor ... ah girl ... and gums, and I...

[This example of how some brain-damaged people (aphasics) struggle to express their thoughts is documented by Harold Goodglass in 'Studies on the Grammar of Aphasics' in 'Psycholinguistics and Aphasia': H. Goodglass and S. Blumstein, eds. Baltimore, MD: John Hopkins University Press, 1973.]

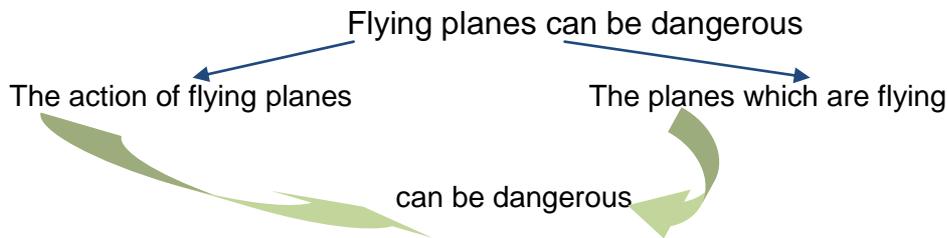
Phrase structure rules specify how words are combined into phrases; for example, English adjectives usually come before the nouns they describe, whereas in French they usually come after the nouns they modify (i.e., a 'black cat' vs. '*chat noir*'). Sentences that violate basic phrase structure rules are less grammatical than those that violate other rules (for example, a *cat black* is less grammatical than a *horizontal cat*).

6.2 Grammaticality vs. Ambiguity

Our syntactic knowledge goes beyond being able to decide which strings are grammatical and which are not. It also enables us to associate the same sound sequences (symbolic forms) with different meanings, depending on how we analyse them. This happens when different deep structures (underlying

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meanings) overlap within the same surface structure (the spoken or written form of the utterance), i.e.:



The double meaning here depends on how you understand the function of the word 'flying' – as a noun naming the action of flying planes, or as an adjective, describing the noun 'planes.' Some other examples of syntactic (structural) ambiguity:

Energy Matters
Alice reads books on volcanoes.
Grover said that Dudley left in his car.
We need more honest politicians.
We saw man eating rats.

Grammaticality refers to the perceived 'correctness' of the form of an utterance, based on social habits of word use.

Ambiguity (both lexical and structural) refers to the double meaning of an otherwise grammatical utterance.