Unit 6 Syntax & Meaning: Limitations of Arbitrariness

Objectives

After completing this unit, you will be able to

1. Explain the concept of Grammaticality
2. Exhibit better skills in G-nalysis (practical sentence analysis)
3. Explain how Grammar rules impose limitations on the arbitrariness of Language

6.0 Introduction

Unit 6 introduces the concept of *grammaticality*, or being in compliance with specific forms and structures (grammar rules) of a language.
The main purpose of this unit is to provide you with more opportunities for exercising your g-nalysing skills.

6.1 Grammaticality – the Concept

In English, and in all languages, every sentence is a sequence of words, but not every sequence of words is a sentence. Sequences of words that conform to the language-specific syntactic rules are said to be *well formed* or **grammatical,** and those which violate the syntactic rules (and are therefore *ill formed*), are viewed as being **ungrammatical**. Only grammatical sentences communicate meaning effectively.

Activity 6.1

Here is a list of word sequences. Use your knowledge of English to pick out those that seem to be 'wrong' or funny in some way:

1. The shouting worked
2. The shark found quickly
3. The dust made us sneeze
4. The dust did us to sneeze
5. The nurse slept the baby
6. She slept soundly
7. Jack and Jill ran up the hill
8. Jack and Jill ran up the bill
9. Jack and Jill ran the hill up
10. Jack and Jill ran the bill up
11. Up the hill ran Jack and Jill
12. Up the bill ran Jack and Jill
13. We worked all year
14. We worked all hour
15. Writers write novels
16. Writers invent novels
17. Sometime else
18. Somebody else

If you have underlined word sequences numbered 2, 3, 5, 9, 12, 14, 16 and 17, it shows that we, as fluent speakers of the language, 'play' by the same rules.

6.1.1 What Grammaticality Is Based On

Grammaticality judgments are not based on our individual perceptions – they are determined by the *rules* that are *shared* by all the speakers of a language (language is the product of society).

The syntactic rules that enable us to make grammaticality judgments include (in addition to the rules of word order) many other constraints. For example, these rules also specify that *found*, being a transitive verb, must be followed by a direct object, whereas *sleep*, which is an intransitive verb, cannot take a direct object, etc.

Native speakers intuitively distinguish grammatical from ungrammatical strings of words because they 'soaked up' the rules of using the words along with the words of their mother tongue. Second language learners, on the other hand, usually make a conscious effort to learn foreign words and the rules of using them in another language.

The ability to make grammaticality judgments does not depend on having heard the sentence before. You may never have come across a sentence like

Mean-looking crocks in pink frocks wearily gnashed their few remaining teeth.

However, your knowledge of English syntax will tell you that it is grammatical.

Grammaticality does not depend on whether the sentence 'makes sense' or not: your words can be a random mix of crazy meanings, but these meanings, senseless as they may be, will still be transmitted and understood, i.e.,

Colourless green ideas sleep furiously.

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:

Jabberwocky

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

"Beware the Jabberwock, my son!
The jaws that bite, the claws that catch!
Beware the Jubjub bird, and shun
The frumious Bandersnatch!"

He took his vorpal sword in hand:
Long time the manxome foe he sought –
So rested he by the Tumtum tree,
And stood awhile in thought.

And, as in uffish thought he stood,
The Jabberwock, with eyes of flame,
Came whiffling through the tulgey wood
And burbled as it came!

One, two! One, two! And through and through
The vorpal sword went snicker-snack!
He left it dead, and with its head
He went galumphing back.

"And hast thou slain the Jabberwock?
Come to my arms, my beamish boy!
Oh, frabjous day! Callooh! Callay!"
He chortled in his joy.

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

> "It seems very pretty," said Alice, having read this poem, "but it's *rather* hard to understand!" You see, she didn't like to confess, even to herself, that she couldn't make it out at all.

> "Somehow it seems to fill my head with ideas – only I don't know exactly what they are! However, *somebody* killed *something:* that's clear, at any rate…" [1]

Although these sentences do not make much sense, they are syntactically well formed. To most English speakers, '*The player quickly in the bushes the ball found*' is interpretable, despite the irregular word order. On the other hand, grammatical sentences may be uninterpretable, like most of *Jabberwocky*, which fills our heads with ideas – only we, like Alice, don't know exactly what they are!

Grammaticality does not depend on the truth of sentences either – if it did, lying would be impossible! Nor does it depend on whether real objects are being discussed or on whether something is possible or not. It is purely our knowledge of language forms and *structures* that permits us to make grammaticality judgments.

6.1.2 Levels of Grammaticality

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*:

Here are a few examples to illustrate the point:

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.
- ⇒ 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.

[These examples come from POMNATHS student essays, 1999]

[1] Lewis Carroll: *Alice's Adventures in Wonderland & through the Looking-Glass*, 1963, pp. 13-15

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 absolute WORST! These render utterances totally 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, in 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*).

Activity 6.1.2

Are these sentences/phrases ungrammatical or ambiguous? Explain what you mean.

⇒ The patient's past medical history has been remarkably insignificant, with only a forty-pound weight gain in the past three days.
⇒ The patient was in his usual state of good health until his airplane ran out of gas and crashed.
⇒ She is numb from her toes down.
⇒ Patient was alert and unresponsive.
⇒ The patient is tearful and crying constantly. She also appears to be depressed.
⇒ She can't bear children.
⇒ The Associate Minister unveiled the church's new tithing campaign slogan last Sunday: "I Upped My Pledge, Up Yours!"
⇒ Stunned and terrified, we saw the Iraqis fleeing. (Ragi, the BBC correspondent)

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

Flying planes can be dangerous:
= Planes which fly can be dangerous
= The action of flying planes can be dangerous

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.
Martha criticized Fran's apartment, so Fran knocked her flat.
We saw man eating rats.

Thus, grammaticality refers to the perceived 'correctness' of the form of an utterance, from the point of view of our shared knowledge of the language structures; on the other hand, ambiguity (both lexical and structural) refers to the double meaning of an otherwise grammatical utterance.

Activity 6.1.3

Are any of these actual medical records (as dictated by physicians) ambiguous? If so, what kind of ambiguity is it – syntactic/structural, or lexical/ semantic?

She slipped on the ice and apparently her legs went in separate directions in early December.
A conversation between two gynaecologists: 'Between you and me, we ought to be able to get this lady pregnant.'
When she fainted, her eyes rolled around the room.
Discharge status: Alive but without permission.
Patient has chest pain if she lies on her left side for over a year.
The patient has been depressed ever since she began seeing me in 1983.

6.2 What do we know, when we know a language?

6.2.1 Logical Connections between Words & Thematic Roles

Our knowledge of syntax also makes it possible for us to understand the ***meaning relations***, the relationships between words in the sentence. These logical connections, we remember, are of three kinds - based on Resemblance (which kind?), Contiguity in Space (where?)/Time (when?), and Cause/Effect (why?).

The interface between sentence structure (form) and meaning is also evident in the meaning of the **relationship between nouns and verbs in the sentence**, called '***Thematic Roles***' (or ***thematic relations***). Thematic roles of nouns can be expressed through **noun case** endings, as is typical in Baltic and Slavic languages, through the use of prepositions, as is the case in English, or through a combination of both noun case endings and prepositions. The meanings of possible relationships between nouns and verbs (thematic roles) include:

⇒ **Agent**: Subject performs the action (**Nominative** case): **Paul** fries fish.
⇒ **Source**: where the action originated (**Genitive**): Fish comes **from** the **sea**.
⇒ **Goal**: what the action is directed towards (**Dative**): Paul gave the fish **to** his **friends**
⇒ **Receiver of Action**: Direct Object of the verb (**Accusative**): Paul fries **fish.**
⇒ **Instrument**: what is used to carry out the action (**Instrumental**): Paul stuffed himself **with fish**.
⇒ **Location**: where the action occurs (**Locative**): Paul fries fish **in** the **frying pan**.

6.2.2 Transformational Rules

Transformational rules govern how the surface structures may be modified *without altering the core meaning* of a sentence; for example, when changing the *form* of an utterance from active to passive voice, i.e.:

The dog bit the poor boy
The poor boy was bitten by the dog

This makes it possible for us to say the same thing in different ways (remember, the creativity of language?)

6.2.3 The 'Truth' of Sentences

From our 'Pelican mosaic' analogy, we saw that the 'image' [the 'chunk' of sentence meaning] is formed by

⇒ The blend of word-meanings we use and
⇒ The order in which they come.

For example, the 'chunks' of meaning synthesised by the same three word-meanings (*fish*, *Peter*, and *fries*) will differ, depending on how we 'connect' them together:

Peter fries fish ≠ **Fish fries Peter**

Knowing the meaning of a declarative sentence also means knowing whether the statement corresponds to reality (under what circumstances the sentence is true). Those circumstances are called the **truth conditions** of the sentence. You don't need to know whether the sentence is true or not; rather, you assess how the statement relates to reality. In the physical world, the sentence '*The sun rises in the East*' is true, and the sentence '*The sun rises in the West*' is false. We know the meanings of both sentences equally well, and knowing their meanings also implies assessment of their truth value.

We can, however, understand sentences without knowing their truth value: knowing the truth conditions is different from knowing facts. Rather, the truth conditions make it possible for us to examine the world and learn the actual facts. Look, for example, at this sentence

Paul believes that the end of the world is nigh.

This sentence is true, if Paul indeed believes that, and false, if he doesn't. Those are its truth conditions. It does not matter if some parts of a sentence are false: an entire sentence may be true, even if some of its parts are not true, and the other way around.

Truth condition is determined by the semantic rules which permit you to combine the subparts of a sentence and still know under what conditions the sentence is true or false. Knowing a language means knowing the semantic rules for combining meanings, and the conditions under which the sentences are true or false. This enables us to understand why sentences like '*My brother is a lady*' or '*This man is pregnant*' are, if taken literally, contradictory. Semanticists refer to such sentences as 'false,' because they cannot be true in their literal sense.

The interface of word meanings and syntax not only enables us to reject anomalous utterances, it also allows us to make logical apprehensions/hypotheses/deductions. Take, for example, the sentence '*The cat killed the rat*.' Our knowledge that *kill* = 'CAUSE to DIE' allows us to deduce / conclude that the rat died. In linguistic terminology, *The cat killed the rat'* ***entails*** '*The rat died*.'

Sometimes a sentence A entails a sentence B: *The grass is green* entails *The grass is not dry/brown*. It is our ability to make logical apprehensions, to think *symbolically*, associating ideas based on Resemblance, Contiguity in Space/Time, and Cause/Effect, that has made human language and our ability to understand it possible.

Formal logic can (in theory) provide formulas for the representation of the sentences of any language, and can show the logical relationships between them. Logic can also clearly show ambiguities, for example:

We are in need of more honest politicians.

This could mean '*We are in need of politicians who are more honest*,' and it could also mean, '*We need more politicians, who are honest.'*

Working out logical relationships between word-meanings involves using common sense. If you hear someone say, '*That man is a rock*,' strict formal logic would reject this proposition, since usually men are not rocks. But because our minds associate ideas based on Resemblance, Contiguity and Cause/Effect, we usually try to guess *why* the speaker had said something so absurd, and will make our own deductions, based on how we perceive things/ associate ideas.

6.2.4 Anomaly

If someone said, 'The crocodile blew his nose into a silk handkerchief and winked at me gleefully,' you'd think the person was joking, or else… did not know that crocodile paws are too short to reach crocodile noses! ☺

Expressions that give the impression of being nonsense by a violation of semantic rules are considered to be anomalous:

The verb crumbles the milk.
My kitchen table ran out of the room.
My brother is the only child in the family.
Sally cooked feathers for dinner.

Propositions can also be **uninterpretable**, as when non-words are used in otherwise grammatical structures. We can interpret them only if we attach some meaning to the non-words. In Lewis Carroll's *Jabberwocky* poem, most of the content words are non-words:

He took his vorpal sword in hand:
Long time the manxsome foe he sought –
So rested he by the Tumtum tree,
And stood awhile in thought.

Even without knowing the meaning of 'vorpal,' we understand that 'He took the vorpal sword in hand' means roughly the same as 'What he took in his hand was a sword, which was vorpal,' 'The sword, which was vorpal, was taken by him in his hand,' or 'He took his sword, which was vorpal, in hand.'

We do not know what 'vorpal' means, but our logic leads us to assume the 'truth value' of all these sentences to be the same, even though we don't fully understand what any of them really mean. We assume that to be the case, because we presume the semantic properties of this particular non-word to be the same in every circumstance.

In poetry, semantic violations may produce unexpected vivid effects, as in Dylan Thomas's phrase 'a *grief* ago' (Fromkin: 1993, p. 150). In ordinary speech, however, we use the adverb *ago* with expressions of time, i.e.:

An hour ago		*a school ago
Five minutes ago	but not	*a hospital ago
A century ago, etc.		*a lecture ago

Using 'ago' with 'grief,' Thomas added the time/duration property to 'grief' for poetic effect. Dr. Steven E. Winduo's poetry also abounds with vivid poetic images created by 'bending' semantic rules:

'*A friend once showed me American Indians*
That came out of his camera
Their finery the colour of tribal roots…'
S.E. Winduo *Hememba*: 'Medicine Wheel'

'Idleness seized the day
A shadow of clouds before us
Bring new visitors to our land
With their machinery of gut
We watched as the savannah
Turned into a sore from feeder roads…'
Ibid., 'Savannah Revisited'

The ability to produce and understand 'figures of speech' (metaphor, metonymy, simile, etc.) requires the creativeness of symbolic thought (ability to associate ideas by Resemblance, Contiguity and Cause/Effect, to draw metaphoric/ metonymic parallels between them). We also, of course, need to have a good knowledge of the language we use to think and share our thoughts.

6.2.5 Collocations, Phrasal Verbs, & Idiomatic Expressions

Knowing a language means knowing the sounds of language, as well as the larger units, such as morphemes, words, and set expressions, conventionally used groups of words, i.e.,

It's a quarter to four (NOT **It is four minus quarter*).

When words are regularly/conventionally used together in a language, they are said to **collocate** with each other, for example: *weak* collocates with *tea*, but *feeble* does not (i.e., *weak* and *tea* collocate). **Collocations** are regular/conventional combinations of words, i.e.: 'resounding victory' and 'crying shame' are English collocations.

English also has a class of verbs called **phrasal verbs**: apart from their regular meaning when they are used in isolation, they acquire (take on) many other meanings when followed by a preposition (called *post*position in this case) or an adverb, i.e.,

> **Come** (move to here): come around (agree), come in to (inherit), come off (to take place, to happen; to be successful /of a plan or scheme/); come round (regain consciousness; visit), come to (regain consciousness, awaken), etc.
>
> **Go** (move there): go out with (date), go off (explode), go off (spoil), go in for (choose, engage in habitually), go under (fail, go bankrupt), go belly up, etc.
>
> **Do** (act): do in (kill), do up (decorate), etc.
>
> **Take** (cause to go with): take in (swindle, deceive; welcome), take off (launch), take over (usurp), take up (commence), etc.
>
> **Hang** (suspend/be suspended): hang about (wait idly), hang back (hesitate), hang on (wait), hang on to (cling, retain), hang out (relax), hang out with (keep company with), hang up (end telephone conversation), etc.
>
> **Hold** (to keep/support something using one's hands): hold dear (value), hold good (remain valid), hold back (hesitate), hold forth (speak boringly at great length), hold together (remain united), hold on (wait), hold up (rob using threat of violence), etc.

The meanings of some of the set expressions in all languages seem to have little to do with the meanings of words that make up these expressions, i.e., *kick the bucket*, etc. Set expressions whose meanings are not straightforward combinations of the meanings of their constituent words, are called ***idiomatic expressions***, or ***idioms***. Idioms often violate restrictions of semantic properties, for example:

A shrinking violet (jocular use: an extremely shy person)
At the eleventh hour
All hot and bothered (in a state of anxiety, pressured)
Back to square one
Be/get hooked on sb/sth (be/get addicted)
Behind the scenes
Bring home the bacon (achieve sth successfully)

Bring sth home to sb (make sb realize sth fully)
Come off it (imperative: stop saying what you are saying)
Come out of /go into one's shell
Do a number on (overwhelm)
Do the honours (act as host)
Eat one's words
Get a life (self-improve)
Go nuts (dement)
Have the honour (of sth / doing sth) – to be given the privilege specified
Have a cow (be angry) [this must have undergone a semantic extension and become: *have beef with* someone]
Hold it
Hold something against somebody (be hostile to sb)
Hold the fort
Hop it (go away)
Hope against hope
Hopping mad (very angry)
Jump the gun
Jump ship
Keep tabs on someone
Milk/suck sb dry
Pass the buck
Play hooky (stay away from school)
Put her foot in her mouth
Save one's/sb's bacon (to avoid / help sb avoid failure: *I was nearly bankrupt, but your loan saved my bacon*)
See red
See the light
Sell sb/sth/oneself short
Send sb packing
Set the stage (prepare)
Split hairs (be petty)
Take the bull by the horns
Take a leak (urinate)
Wrap sb around one's little finger, etc.

Idioms have peculiar grammatical/semantic properties, and exist in our mental dictionary (lexicon) as single items. Many idioms originated as metaphorical expressions that 'took hold' in the language and so became 'set' in their form and meaning.

Summary of Sections 6.1 & 6.2

# 1.	Grammaticality measures the conformity of utterances to the rules of the language system.
# 2.	Apart from enabling us to distinguish grammatical strings from ungrammatical ones, our knowledge of syntax allows us to know ⇒ When a sentence is structurally ambiguous ⇒ When two sentences of different structure mean the same thing, and ⇒ What the *meaning relations* are in sentences (in other words, it allows us to see the logical connections between words, how words *relate* to each other in a sentence).
# 3.	Grammaticality exists on different linguistic levels: lexical, syntactic, and semantic.
# 4.	Utterances, which break the basic phrase structure rules, often become unintelligible.
# 5.	Ambiguity results when different deep structures (meanings) overlap in the same surface structure.
# 6.	Only grammatical and unambiguous forms (utterances) transmit meaning effectively
# 7.	The interplay of 2 factors create 'chunks' of complex meaning: ⇒ The blend of all the word-meanings we use in a phrase/sentence and ⇒ The order in which the word-meanings are joined together.

# 8.	Syntactic forms/structures have a direct bearing on the logical relationships between word-meanings in a sentence, and on the thematic relations between the verbs and nouns (particularly in a fixed word order system): S V $C_{(DO)}$ ≠ S V $C_{(DO)}$ The **dog** bit the *man* ≠ The **man** bit the *dog* **agent** *DO* **agent** *DO*
# 9.	We determine the 'truth' of sentences by assessing how the statement correlates to reality.
# 10.	We determine the grammaticality of utterances by assessing their compliance with the syntactic, lexical and semantic rules of the language we share with others.
# 11.	The rules of a language govern how elements and units of language (sounds, morphemes, word-meanings, phrases and sentences are put together; these rules determine the *forms* (structures) of language.
# 12.	Some combinations of word-meanings become set expressions (collocations), i.e., *The Prime Minister promised to help them (tsunami survivors)* ***back on their feet****.* *The Maersk crew will be reunited with their loved ones* ***in short order****.*

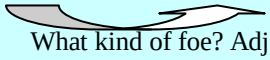
6.3 Practical Sentence Analysis (G-nalysis)

Let us now look at some 'live' thoughts on the evil of drunkenness[2] and try to figure out the logical relationships between the words and groups of words that 'flesh' them out:

Chained by wine, /one / lives / no life at all (Alcaeus).
Adv. of manner Phrase

Simple sentence

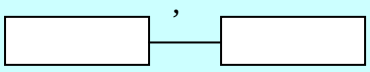
S V $C_{(PN)}$
Wine / is / a terrible foe, hard to wrestle with (Euripides: Cyclops, 440 BC).



What kind of foe? Adj. phrase

Simple Sentence

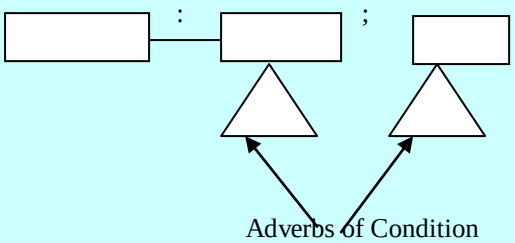
S V $C_{(DO)}$ S V $C_{(DO)}$
Wine / mars / beauty, / wine / spoils / our prime (Propertius: Elegies, 24 BC).



Compound Sentence

[2] Source: Blackall & Foulkes: Quaffing Quotes. The Watermark Press, NSW, Australia. 1984

S_1 V_1 $C_{(DO)}$
Wine/ has / two defects:



S_2 V_2 $C_{2\,(DO+IO)}$ S_3 V_3 $C_{3\,(DO)}$
/if you/ add /water to it, /you /ruin /it;

On what condition do you ruin it?

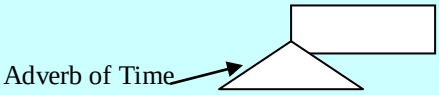
Adverbs of Condition

S_4 V_4 $C_{4(DO)}$ S_5 V_5 $C_{5(DO)}$
/if you /do not add/ water, /it /ruins /you. (Spanish proverb)

On what condition does it ruin you? **Compound-Complex Sentence**

S_1 V_1 S_2 V_2 - Zero Compliments in both S/V/C patterns
When the drink/ goes in, /the wit/ goes out (English proverb)

When does the wit go out?



Complex Sentence

Activity 6.3

G-nalyse these sentences:

1. The PM promised to help the earthquake survivors to help them back on their feet.
2. McCain's campaign is going off-script.
3. Blair: "The campaign is going to plan."
4. On the other hand, they want to stay sweet with the US.
5. Bush needs just on the short side of 75 billion dollars.

Where do all these rules that make up our knowledge of Language come from?

6.4 Limitations of Arbitrariness

In his Course in General Linguistics, Ferdinand de Saussure described the way language works to create meaning (the Language Mechanism) in terms of the

(a) Syntagmatic interdependencies (linear relationships), and

(b) The interplay between the ***syntagmatic*** and the ***associative*** relations between linguistic signs in the creation of Sign Value.[3]

[3] In a linguistic state … everything depends on relations. … They correspond to two different forms of mental activity, both indispensable to the workings of a language. Words as used in discourse, strung together one after another, enter into relations based on the linear character of languages … Combinations based on sequentiality may be called *syntagmas*.
… Outside the context of discourse, words having something in common are associated together in the memory. … This kind of connexion between words is … not based on linear sequence. It is a connexion in the brain. Such connexions are part of that accumulated store which is the form the language takes in an individual's brain. We shall call these *associative relations*.
Syntagmatic relations hold ***in praesentia.*** … Associative relations … hold ***in absentia***. They hold between terms constituting a mnemonic group (Saussure: 2006, pp. 121–122; emphasis mine – OT).

Ferdinand de Saussure saw the 'language mechanism' in the ***simultaneous functioning*** of syntagmatic and associative relations between Linguistic Signs, noting that '**Groups** of both kinds are in large measure established by the language' and that 'This set of habitual relations is what constitutes linguistic structure and determines how the language functions. … Syntagmatic groups formed in this way are linked by interdependence, each contributing to all. Linear ordering in space helps to create associative connexions, and these, in turn, play an essential part in syntagmatic analysis' (Saussure: 2006, pp. 126–128). Contrast, he stressed, or *opposition*, between existing forms (inflexions, etc.) plays an important role in creating the intended meaning.

The first fundamental principle of synchronic linguistics (***The Sign Is Arbitrary***) is challenged by the existence of flexions (tenses and conjugations of the verb, declensions of the noun, etc.) and other linguistic paradigms. Even though ultimately 'the link between signal and signification is arbitrary' within a language system, Saussure explained, **'the sign may be motivated to a certain extent'** (Ibid., p. 67):

> Relative motivation implies (i) the analysis of the term in question and, hence, a syntagmatic relation, and (ii) appeal to one or more other terms, and hence an associative relation. …
> …The **entire linguistic system is founded upon the irrational principle that the sign is arbitrary.** Applied without restriction, this principle would lead to utter chaos. But the mind succeeds in introducing a principle of order and regularity into certain areas of the mass of signs. That is the role of relative motivation. **If languages had a mechanism which were entirely rational, that mechanism could be studied in its own right.** …
> **There exists no language in which nothing at all is motivated**. … Between the two extremes – minimum of organization and minimum of arbitrariness – all possible varieties are found (Ibid., p.130; emphasis mine – OT).

In his discussion of relative motivation (*relative arbitrariness* of Linguistic Signs, or *regularity* in language), Saussure focused mostly on the *forms* of language (bias typical of linguistics at all times):

> On the other hand, this process of determination and choice governs even the smallest units, right down to phonetic elements, when they have a value. We are thinking here not only of cases like the feminine adjective *petit (petite* 'little') contrasting with the masculine *peti* (written *petit),* or the Latin genitive singular *domini* ('of a master') contrasting with the dative singular *domino* ('to a master'), where it happens to be the case that the difference depends on just one sound, but also of the more typical and subtle way in which speech sounds themselves play their part in the system comprising a given linguistic state (Ibid., p. 129).

Here we see that, despite his brilliant observation that the ***essence*** of language is the ***indivisible*** union of form and idea, Ferdinand de Saussure fractures his Linguistic Sign into the Signifier and the Signified and examines them separately, thus letting the "logical side of the language, involving invariables unaffected by time, race, culture or geography" [4] he described in his lectures slip away.

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[4] Saussure: 1910

Ferdinand de Saussure defined meaning (Sign Value) as the product of *syntagmatic* and *associative* relations between signs. His theory of the Language Mechanism gains both in depth and in detail, when 'synthesized' with Vygotsky's ideas on the ***relativity of word-meanings*** and with Hume's analysis of *how* the human mind reasons, or 'makes sense' of things:

1. Linguistic duality acquires a '3rd dimension' when combined with the notion that meanings ***develop*** in our individual (as well as collective) minds, that they are fluid, relative to context of use and individual perceptions.
2. Hume's principles of human understanding (those "invariables unaffected by time, race, culture or geography") provide a universal matrix for all generalization/ conceptualization (thought) and, therefore, constitute the Rational Mechanism of all natural languages.

It stands to reason that, if Language is the product of the same universal Rational Mechanism, the world's languages must share a lot in common, despite all their diversity. The search for those 'universal invariables' of Language spans the history of humankind (Speculative Grammar of the Middle Ages, the Solitaires of Renaissance, the Generative/Transformational Grammar of the 20th century, etc.

Vygotsky identified the one thing that all languages share: that every word of Language is a generalization, and therefore, an 'act of thought' (Vygotsky: 1934).

Currently, we are seeing a resurgence of interest in the relationship between thought and language:

> Language reflects preexisting, and hence non-language-specific, human learning and processing mechanisms (Christiansen & Chaten: 2007).

Generalisation rests on the three principles of human understanding, first identified by David Hume; association of ideas by resemblance, contiguity, and cause/effect allows us to generalize /'make sense' of the world. These three principles of human understanding power the synthesis and analysis of human thought; they make up the backbone that holds all ideas, all meanings, and, therefore, all languages together.

Grammaticality reflects the speakers' shared norms of usage, their knowledge of *how* the synthesis and analysis of thought should be 'fleshed out' in words correctly.

Activity 6.4

Language reflects preexisting, and hence non-language-specific, human learning and processing mechanisms (Christiansen & Chaten: 2007).

Did Hume's 'universal principle' refer to the same cognitive mechanisms? Why?

Among different languages … the words, expressive of ideas, the most compounded, do yet nearly correspond to each other: a certain proof that the simple **ideas**, comprehended in the compound ones, were bound together by some **universal principle**, which had an equal influence on all mankind. (http://18th.eserver.org/hume-enquiry.html)

Summary

1. Grammaticality measures the conformity of utterances to the rules of the language system.

2. Apart from enabling us to distinguish grammatical strings from ungrammatical ones, our knowledge of syntax allows us to know
    - When a sentence is structurally ambiguous
    - When two sentences of different structure mean the same thing, and
    - What the *meaning relations* are in sentences; in other words, it allows us to see the *logical connections* between words, how words *relate* to each other in a sentence.

3. Grammaticality exists on different linguistic levels: lexical, syntactic, and semantic.
4. Utterances, which break the basic phrase structure rules, often become unintelligible.

5. Ambiguity results when different deep structures (meanings) overlap in the same surface structure.

6. Only grammatical and unambiguous forms (utterances) transmit meaning effectively

7. The interplay of 2 factors create 'chunks' of complex meaning:
    - The blend of all the word-meanings we use in a phrase/sentence, and
    - The order in which the word-meanings are joined together.

8. Syntactic forms/structures have a direct bearing on the logical relationships between word-meanings in a sentence, and on the thematic relations between the verbs and nouns (particularly in a fixed word order system):

S	V	$C_{(DO)}$		S	V	$C_{(DO)}$
The **dog**	bit	the *man*	≠	The **man**	bit	the *dog*
agent		*DO*		**agent**		*DO*

9. We determine the 'truth' of sentences by assessing how the statement correlates to reality.

10. We determine the grammaticality of utterances by assessing their compliance with the syntactic, lexical and semantic rules of the language we share with others.

11. The rules of a language govern how elements and units of language (sounds, morphemes, word-meanings, phrases and sentences are put together; these rules determine the *forms* (structures) of language.

12. Some combinations of word-meanings become set expressions (collocations, idioms, etc.)

References

V. Fromkin & R. Rodman: An Introduction to Language' 1993, p. 150

Saussure, Ferdinand. 1983. *Course in General Linguistics*, 16th printing 2006, Open Court Publishing Company

Saussure, Ferdinand. 1993. *Third Course of Lectures on General Linguistics* (1910-1911); http://www.marxists.org/reference/subject/philosophy/works/fr/saussure.htm (27/06/2008)

Vygotsky, Lev. Thinking and Speaking. The M.I.T. Press, 1962; Edited and translated by Eugenia Haufmann and Gertrude Vakar; http://www.marxists.org/archive/vygotsky/works/words/index.htm (27/06/2008)

Hume, David. An Enquiry Concerning Human Understanding, Section III – Of the Association of Ideas. http://18th.eserver.org/hume-enquiry.html & http://18th.eserver.org/hume-enquiry.html#3 (27/06/2008)

Hume, David. A Treatise of Human Nature, Book I: Of the Understanding, Part I: Of Ideas, Their Composition, Connexion, Abstraction, etc., Section IV: Of the Connexion or Association of Ideas. Retrieved June 29, 2008 from http://www.mv.helsinki.fi/home/tkannist/E-texts/Hume/HumNature/index.html & http://www.mv.helsinki.fi/home/tkannist/E-texts/Hume/HumNature/chapter4.html

Self-Assessment Exercises

Ex. 1 Examine the following data from the Nakanai language of the west New Britain Province, PNG and then answer the questions below:

gutu	*cook*	gulutu	*cooking*
taga	*be afraid*	tilaga	*fear* (noun)
pou	*sit*	pulou	*residence*
muga	*lead*	muluga	*the first*
peho	*die*	pileho	*death*
tuga	*to walk*	tuluga	*journey*
sapa	*sweep*	silapa	*broom*
voku	*make*	vuloku	*something made*

(a) The verbs in the left column appear in the right-hand column with an infix. What is the function of the infix?

(b) The infix has 2 allomorphs. State whether the conditioning factor is phonological or lexical and, if phonological, state precisely the phonological factors involved.

Ex. 2: Look at the data from Motu (Central Province, PNG) and answer the questions below:

nahodomu	*I stoned you*	narakatanimu	*I left you*
ehodogu	*he stoned me*	erakatanigu	*he left me*
ohodoa	*you stoned him*	orakatania	*you left him*
eutugu	*he cut me*	nahamasemu	*I killed you*
nautumu	*I cut you*	ohamasegu	*you killed me*
outua	*you cut him*	nahamasea	*I killed him*
eitamu	*he saw you*	ehadikagu	*he abused me*
naitaia	*I saw him*	ohadikaia	*you abused him*
oitagu	*you saw me*	nahadikamu	*I abused you*

1. List the prefixes and state what they mean.
2. What is the suffix meaning 'me'?
3. What is the suffix meaning 'you'?
4. The suffix meaning 'him' has 2 allomorphs. What are they, and what is their distribution?

Ex. 3. In Fijian, when a verb has an object, it takes a suffix. The verbs on the left have no objects, but the verbs on the right have objects following them. Examine the data and answer the questions below:

ʁai	*look, see, look at*	raiða
ðabe	*sit, sit on*	dabeða
ʏadra	*guard*	yadrava
ðre	*pull*	dreta
ðudru	*be angry (at)*	ðudruva
kaba	*climb*	kabata
koti	*cut*	kotiva
dresu	*tear*	dresuka
viri	*throw*	virika
moku	*kill*	mokuta

ŋunu	*drink*	ŋunuva

The transitive suffix has a number of allomorphs. List them, stating whether the conditioning factor is phonological or lexical, and if phonological, state precisely the phonological factors involved.

Ex. 4: The verb in Futunese (Futuna, Vanuatu) takes a suffix when followed by an object. Examine the list of intransitive (left column) and transitive (right column) verbs below, then list the allomorphs and state their conditioning and distribution.

tau	*hang*	tauria
fonu	*be full, fill*	fonua
waru	*scrape*	warusia
siki	*nurse*	sikina
foro	*swallow*	foromia
visau	*speak*	visaua
tanu	*bury*	tanumia
furu	*wipe*	furuna
suki	*sew*	sukia
toro	drag	toroʃia
tako	kick	takofia
toto	catch	totomia

Ex. 5 Examine the following data from French, then answer the questions below:

ʒəvwaː	*I see*	tʊnevwaː	*You don't see*
ʒəmavwaː	*I see myself*	tʊnətəvwaː	*You don't see yourself*
ʒətəvwaː	*I see you*	tʊnəməvwapaː	*You don't see me*
tʊməvwaː	*You see me*	ʒənətəvwapɑː	*I don't see you*
tʊtəvwaː	*You see yourself*	ʒənəməvwapɑː	*I don't see myself*
tʊvwaː	*You see*	ʒənəvwapɑː	*I don't see*
ʒəlav	*I wash*	ʒənəməlavpɑː	*I don't wash myself*
ʒətəlav	*I wash you*	tʊnəlavpɑː	*You don't wash*

tʊtələv	*You wash yourself*	tʊmənələvpɑ:	*You don't wash me*
tʊmələv	*You wash me*	ʒənətələvpɑ:	*I don't wash you*
tʊlav	*You wash*	ʒənələvpɑ:	*I don't wash*
ʒəmələv	*I wash myself*	tʊnətələvpɑ:	*You don't wash yourself*