

Lecture 5. 'Spinning' instructions (syntax): synthesis & analysis

Today's Menu:

1. **Synthesis & Analysis** in verbal thought – Language
2. **Syntax** – the rules of spinning the 'webs of significance'
3. The '**webs of significance**': meaning-as-use

1. Synthesis & Analysis in verbal thought – Language

Synthesis & Analysis are the opposite parts of human understanding (generalization) & its physical expression – verbal thought. They are integral parts of thinking, just as both *inhalation* & *exhalation* are the integral parts of breathing.

Generalization is the universal mechanism of verbal thought.

Verbal Thought *Is* Language.

➡ **Generalization Is the Rational Mechanism of Language.**

Synthesis & Analysis form the 'mechanism' of all generalization/ understanding. In order to form a concept, we need to see how things relate to each other (in terms of similarities/contrast between them, relations in time and space, all the causal and part-whole relationships, etc.). In order to generalize, we must be able not only to *connect*, but also to *abstract*, to *single out* characteristic elements, and to view them separately from the "totality of the concrete experience in which they are embedded" (Vygotsky: 1986, p. 135).

2. Syntax – the rules of spinning the 'webs of significance'

This Rational Mechanism of Language/ Verbal Thought/ Generalization works through the *synthesis* of words into the **nexus of the sentence & analysis (modification, specification) of the nexus constituents**. This mechanism of human thought is embodied in all grammars:


- **Synthesis** creates the mosaic of the complex-compound generalization (sentence), connecting word-meanings into the 'Subject, Verb, and Object' pattern of the proposition (in whichever order they come); their nexus represents the linear (syntagmatic) relationship between them, and
- **Analysis** zooms in on *parts* of the sentence mosaic & describes them by resemblance, cause/effect & contiguity.

Synthesis and **Analysis** are the 'opposite' parts of *generalisation*, just as *inhalation* and *exhalation* are the opposite parts of breathing.

Recursion, or insertion of phrases inside others, so typical of all human languages, is nothing but analysis in action – the lens of our mind's eye, zooming in on the details of the sentence mosaic! An example of recursion is extending the sentence '*Nothing intelligent would ever get done*' to '*If people did not sometimes do silly things, nothing intelligent would ever get done*' (here, the adverbial clause states a condition for the hypothetical action in the main clause).

Other examples of how we can expand nexal patterns by stuffing 'specifics' into them:

S	V	C _(DO)			
Doctors	// treat	// patients			
S	V	C _(DO)	C _(DO)		
//Young doctors	/ carefully	treat	/ sick	patients.	//
S	V	C _(DO)	S ₂	V ₂	C _{2(DO)}
//Young doctors	/ carefully	treat	/ sick	patients,	//because they / want / them to get better.//



To understand linguistic structures, we must understand the *relationships* between words and groups of words within the nexus of the sentence mosaic.

Logical Connections in Generalization (Relations of Synthesis & Analysis)

In order to form a concept (generalization), we must not only *connect*, but also *abstract*, single out parts of it. Different societies developed their own ways of building their word mosaics through the synthesis and analysis of word-meanings. The relations between words in a sentence may therefore be viewed as those of synthesis (syntagmatic relations) and those of analysis (associative relations).

Relations of Synthesis

These include (a) the linear pattern of the sentence nexus, and (b) the relations between the verb and the nouns within the nexus:

- (a) **Speech communities ‘synthesize’ their mosaics of generalization (sentences) in different ways, following their habit and tradition.** The basic order of subject, verb, and direct object in their sentence ‘mosaics’ may vary between six basic types:

- Subject Verb Object (**SVO**)
 - Subject Object Verb (**SOV**)
 - Verb Subject Object (**VSO**)
 - Verb Object Subject (**VOS**)
 - Object Subject Verb (**OSV**)
 - Object Verb Subject (**OVS**)
- } these account for > 75% of all
} of the world’s languages
} these are rare; they make up only
} 0.25% & 0.75% of all languages, respectively

SOV is the most common way of synthesizing generalization mosaics in the world’s languages, with **SVO** being a close second; together, these two patterns account for more than 75% of the world's languages.

Some languages (particularly, inflectional languages like Russian, Latvian, etc.) allow for all possible patterns – SVO, OVS, SOV, OSV, VSO, and VOS. Each of these patterns adds a shade to the overall meaning.

Most Austronesian languages of the Central and Milne Bay Provinces of Papua New Guinea use the SOV pattern in their sentence mosaics, as we see in Motu:

Sisia ese tau ta e-ita-ia.
dog subject man one it-see-him
SUBJECT OBJECT VERB
‘The dog saw a man.’

However, some Austronesian languages, such as Tolai, prefer the SVO patterns (Crowley: 1997, p. 141). The same sentence in Tolai has the SVO structure:

A pap i gire tikana tutana.
the dog it see one man
SUBJECT VERB OBJECT
‘The dog saw a man.’

(b) Relations between 2 Nouns/ Noun & the Verb (a.k.a. *Thematic Roles*): These logical relations usually show how things relate to each other in space and are expressed through the so-called ‘*Cases of the Noun,*’ a.k.a. ***Thematic Roles***. Thematic roles of nouns can be marked by noun case endings, as is typical in many Indo-European languages, through the use of prepositions, as is typical in English, or through both (case endings & 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.

As you can see, it is the relationship between the noun and the verb in the nexus that determines whether the noun is the Subject of the Verb (agent) or the receiver of the action of the verb (its Direct Object) – this distinction is important in shaping the nexus of the sentence mosaic (Re: nexal patterns above).

Inflexional languages (those that express the logical relations between two nouns / between a noun and the verb in the nexus through noun endings) typically distinguish six types of logical connections, expressed through the ***cases*** of the noun:

1. **Nominative** (naming the Subject, doer of the action): Men fight wars; Cats roam the streets; Cows give us milk, etc.
2. **Genitive** (this case, called *possessive* in English, shows from where the action originates, as well as part-whole relations between nouns/ possession): Men’s sports; Mother’s bag; fish from the sea; fruits of our labour, children of the city, days of the week, etc.
3. **Dative** (nouns in this case are the receivers of the product of the action of the verb/ indirect object; they also show movement towards that noun): from A to B; from the rich to the poor; we prayed for them; etc.
4. **Accusative** (receiver of the action; direct object): Dogs love bones; Students hate exams; Children ate the cakes; etc.
5. **Instrumental** (nouns in this case show that they are used as tools/ or that they accompany something else): to hit with the hammer; to go with friends; proceed with caution; etc.
6. **Locative** (showing the location of where the action takes place): to sit in class; to live in the city; to be in the game; to float on air; etc.

Thus, linear /syntagmatic relations between words and ‘pieces of words’ (such as endings or prefixes) shape the nexus of the sentence (SVO) and show their ‘thematic roles’ in the sentence, how nouns relate to each other (in terms of contiguity in space or time/ part-whole relationships/ causality) or to the verb.

Relations of Analysis

These are the associative relations between any one of the three major sentence constituents (Subject, Verb, or Compliment) and concepts that describe or name them. Three word functions express these associations:

- **Adjective** word function connects ideas by resemblance,
- **Adverb** function expresses contiguity in space/time or cause/ effect, and
- **Noun** function names concepts, based on all three principal associations (resemblance, contiguity, and cause/effect).

The **functions** of words in the sentence – whether they **name** the main sentence constituents or **modify** them – determine the relationships between them. These functions (Parts of Speech) are the same in all languages, since they reflect the universal mechanism of human thought, generalization. In live communication, word-meanings form ‘chunks’ of composite meanings – the mosaics of phrases and clauses.

Associating ideas by resemblance, contiguity in space/time, and cause/effect allows for an open-ended structural expansion of the main nexus pattern (S/V/C) through sequential insertion of nexal patterns /embedding of more and more details into any one of the three ‘slots’ of the preceding nexal pattern – **recursion**; i.e.,

- ❖ I know that you know that he knows that she knows that we know – and so forth, ad infinitum.
- ❖ I met a young man from the city who met what he thought was a kitty; he gave it a pat and said, ‘Nice little cat’... They buried his clothes out of pity.

Recursion shows how our minds make the resemblance, contiguity in space/ time, and cause/effect connections between word-meanings in sentence mosaics. To understand syntactic structures, it helps to use the logic of our thinking to see how the way we think is embodied in the sentence mosaics. This is the essence of generalizing syntactic analysis (G-nalysis).

G-nalysis identifies the logical connections between words/ groups of words through asking logical questions, i.e., *What? Which? What kind? How? When? Where? Why? With what purpose? On what condition? With what consequence?* etc.

The ‘**zoom-in lens**’ of analysis is made up of a group of words which act together as one adjective, adverb, or noun, inserted into one of the three ‘slots’ of the sentence mosaic. These ‘zoom lenses,’ depending on what they focus on, are called noun, adjective, or adverb phrases or clauses.

The sentence ‘*I think, therefore I am,*’ for instance, has two nexal patterns, associated by hypothetical cause/effect.

With what consequence? (association by cause/effect; → ‘therefore I am’ is an adverb of consequence)

The embedding of these ‘zoom-in lenses’ (recursion) is typical of all human languages, because analysis is a vital part of all human understanding:

English	I think, therefore I am.
Telei of Southern Bougainville:	Nne aposi, eguko nne.
Tolai:	Iau nukia, ba iau iau.
Zia:	Na kotupunena, arare Na ara.
Dutch:	Ik denk, dus ik ben.
Latvian:	Es domāju – tādēļ es esmu.

Generalizing syntactic analysis (G-nalysis)

G-nalysis uses the universal principles of human understanding (generalization) to make sense of language structures. G-nalysis allows for flexibility of interpretation; it accommodates the idiosyncrasy of all human perception, which accounts for the inherent ambiguity of language.

G-nalysis seeks to discover the relationships between words and groups of words in the sentence by asking ‘natural’ questions. To make these relationships more vivid, it depicts them in sentence diagrams, where quadrangles represent independent nexus patterns, while triangles stand for dependent nexus patterns (Adjective, Adverb, or Noun clauses)

G-nalysis uses the mechanism of meaning creation, Generalisation, to identify the ways we **connect** and **expand** simple ideas into larger chunks of meaning, building sentence mosaics out of word-meanings and groups of word-meanings (phrases and clauses). Because this method of sentence analysis (g-nalysis) uses the way the human brain thinks naturally, it is really easy to understand, and use.

G-nalysis allows for flexibility in interpreting ambiguous structures (please see G-nalysis Practice at the end of this unit).

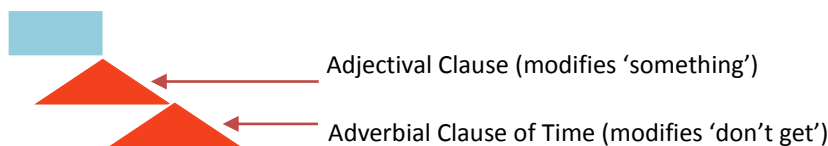
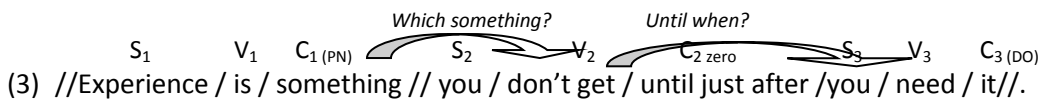
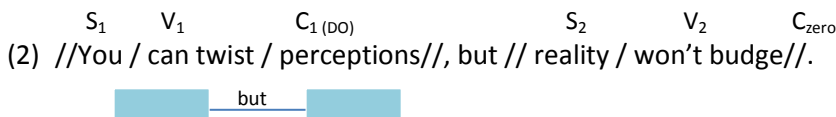
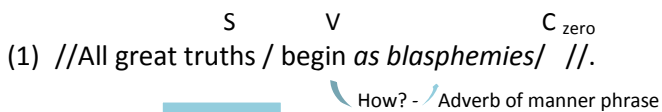
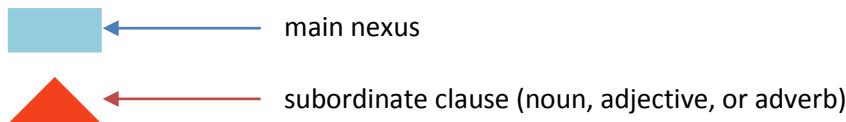
Recursion makes the Language/ Thought mechanism open-ended, allowing for infinite expansion of the ‘skeletal’ sentence meaning through embedding the ‘zoom-in lenses’ of phrases and clauses into the main sentence slots, i.e.:

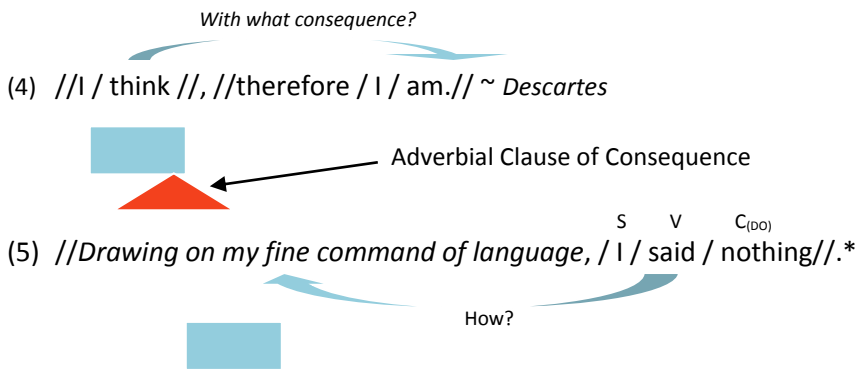
*This is the farmer sowing the corn
 That kept the cock that crowed in the morn
 That waked the priest all shaven and shorn
 That married the man all tattered and torn
 That kissed the maiden all forlorn
 That milked the cow with the crooked horn
 That tossed the dog
 That chased the cat
 That killed the rat
 That ate the malt
 That lay in the house that Jack built.*

The Two Steps of G-nalysis:

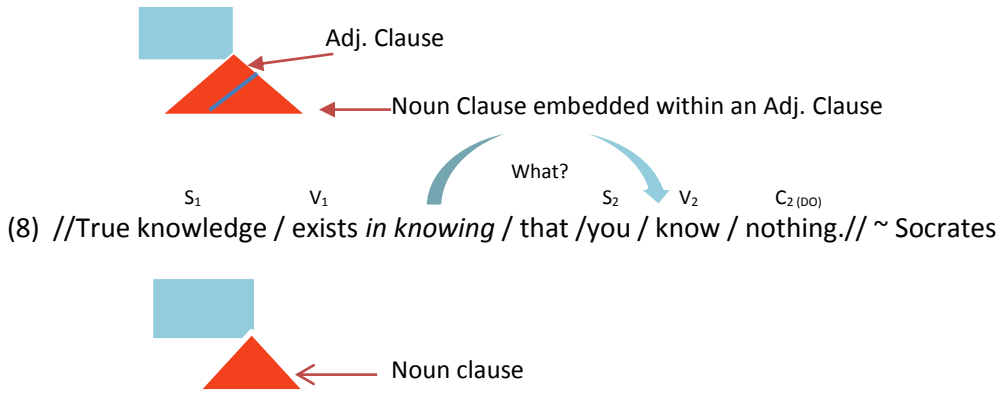
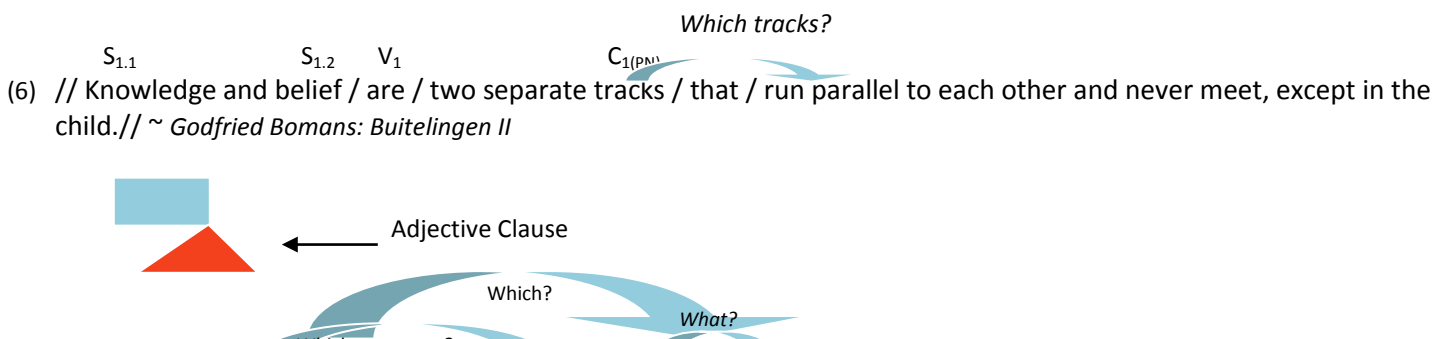
1. The first step in G-nalysis focuses on identifying all S/V/C patterns present in the sentence.
2. The second step aims to determine the **logical relationships** between all the S/V/C patterns in the sentence. This is done through asking relevant questions (Re: Some examples of practical sentence analysis below).

G-nalysis – Key Symbols:





* The **adverb of manner phrase** precedes the Subject.



G-nalysis is flexible: it allows for ambiguity, so inherent in language. The functions of words and groups of words (phrases and clauses) may be analysed differently, depending on one's perception / the kind of generalization one makes. In example (8), for example, the phrase *in knowing* can be analysed as

- (a) **Indirect Object** (IO) in the compliment slot, if the question '(exists) *In what?*' is asked
- or as
- (b) An **adverb of place phrase**, if the question '*Where?*' is asked instead; in this case, the complement would be analysed as zero.

This flexibility of G-nalysis reflects the fluid nature of 'live' meanings we create and perceive, as we 'play our language games'; it accounts for the indeterminacy of meaning (meaning as use) that Ludwig Wittgenstein and Bachtin wrote about. G-nalysis reflects the natural way we think / reason, which accounts for why it both enjoyable and easy to comprehend.

3. The 'webs of significance': Meaning-as-Use

'Man is an animal suspended in the webs of significance he himself has spun' (Max Weber's words), and Language is our spinning wheel. The society gives us this ingenious tool and teaches us to spin our own 'webs' of meaning. What is the Mechanism of this social tool, this Spinning Wheel – Language?

The Language tool consists of a set of conventional *denotative* word-meanings and rules of how to put them together into sentences (mosaics of word-meanings). Artists can create any kind of mosaic images by arranging colored tiles in a particular way:



Source: <http://www.firelily.com/samples/images/mosaic.lily.html> (12/04/2010)

Source: http://www.lineartgallery.com/web/Artist/Strachan/art_mosaics/art_mosaic_photos/art_mosaic_frog.jpg (12/04/2010)

We are all artists, in that sense – we create complex /composite meaning by arranging word-meanings into sentence mosaics. Words are like tiles of different colors – a brown tile may be part of a flower, an eye socket of a skull, a sucker on a frog's toe, or anything else – **its true meaning is its use in the mosaic**. Likewise, words acquire their true meaning only in the context of the composite whole of the sentence mosaic; i.e., compare the meaning of 'beef' in 'Stop beefing about Karen'; 'Where is the beef?' 'You have a beef with me?'; and 'Your essay is good, but you must beef it up with facts.'

Each sentence we make, like a mosaic image, has a composite meaning of its own, reflecting the physical world just as our mind's eye sees it. We play the same 'language game' with our 'wantoks' who can 'see' the 'mosaics' we create, because we all use the same set of tiles (conventional word-meanings) and rules of putting them together to create our composite meanings.

We acquire Language through our senses; we also perceive it through our senses (of hearing & sight); therefore, we perceive spoken (and written!) language through the wide-angle lens of our physical senses, in **mosaics** of meaning. This is why we often understand the sentence, before the speaker has finished saying it, and can even guess the words not yet spoken. Made up of colorful word-meanings, sentences transmit their meaning 'in a flash', just like pictures (mosaic images) do. The only difference between sentences and mosaics is that we see the meaning of images with our eyes, while our minds 'see' the meaning of sentences ('word mosaics') through our ears. Because our physical senses perceive things as a whole, we 'see'/'sense' word mosaics (sentences) just as we see visual images – as a whole.

The succession of images below exemplifies the process of speech comprehension (i.e., making sense of each sentence 'mosaic' that you hear). We cannot pronounce/perceive several words at the same time – speech is linear in time. With each word, our mind's eye 'sees' more and more of the sentence mosaic revealed, until we recognize what it represents

(just as we do when we see parts of the mosaic – we guess the overall ‘meaning’ of the mosaic long before we see all of it):



Some sentence mosaics are more difficult to understand than others (before they are spoken fully):



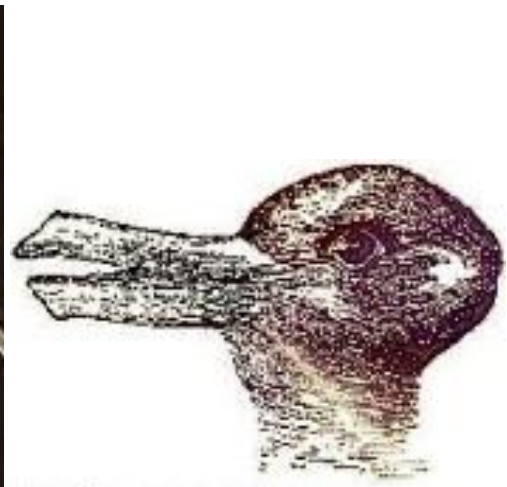
Other sentences can be ambiguous (you can make different ‘sense’ of them, so different minds can see them differently):



A frog or a horse?



A girl or a witch?



A duck or a rabbit?

Exercise: Comment on the inadvertent ambiguity of the following sentences which actually appeared in church bulletins /were announced in church services (Summer 2007).

- ❖ Ladies, don't forget the rummage sale. It's a chance to get rid of those things not worth keeping around the house. Bring your husbands.
- ❖ Remember in prayer the many who are sick of our community. Smile at someone who is hard to love. Say 'Hell' to someone who doesn't care much about you.
- ❖ Don't let worry kill you off - let the Church help.
- ❖ Miss Charlene Mason sang 'I will not pass this way again,' giving obvious pleasure to the congregation.
- ❖ For those of you who have children and don't know it, we have a nursery downstairs.
- ❖ Irving Benson and Jessie Carter were married on October 24 in the church. So ends a friendship that began in their school days.
- ❖ A bean supper will be held on Tuesday evening in the church hall. Music will follow.
- ❖ At the evening service tonight, the sermon topic will be 'What Is Hell?' Come early and listen to our choir practice.
- ❖ Eight new choir robes are currently needed due to the addition of several new members and to the deterioration of some older ones.
- ❖ Scouts are saving aluminum cans, bottles and other items to be recycled. Proceeds will be used to cripple children.
- ❖ Please place your donation in the envelope along with the deceased person you want remembered.
- ❖ The ladies of the Church have cast off clothing of every kind. They may be seen in the basement on Friday afternoon.
- ❖ The Associate Minister unveiled the church's new tithing campaign slogan Last Sunday:

'I Upped My Pledge - Up Yours!' ☺

Re-cap:

1. Synthesis & Analysis form the 'mechanism' of all generalization/ meaning/ verbal thought – all understanding.
2. The rules of Synthesis & Analysis of word-meanings are the syntactic rules of a language (syntactic rules are the 'operating instructions' for spinning 'webs of significance' – our sentence mosaics).
3. This Rational Mechanism of Language/ Verbal Thought/ Generalization works through the synthesis of words into the nexus of the sentence & analysis (modification, specification) of the nexus constituents.
4. **Relations of Synthesis** include
 - a. the linear pattern of the sentence nexus, and
 - b. the relations between the verb and the nouns within the nexus.
5. **Relations of Analysis** are the associative relations between a major sentence constituent (Subject, Verb, or Compliment) and concepts that describe or name them. Three word functions express these associations:
 - a. Adjective word function connects ideas by resemblance,
 - b. Adverb function expresses contiguity in space/time or cause/ effect, and
 - c. Noun function names concepts, based on all three principal associations (resemblance, contiguity, and cause/effect).
6. **G-nalysis** uses the mechanism of meaning creation, Generalization, to identify the ways we connect and expand simple ideas into larger chunks of meaning, building sentence mosaics out of word-meanings and groups of word-meanings (phrases and clauses).
7. **G-nalysis is flexible:** by identifying the *logical* relationships between words, it can reflect different interpretations of these relationships and, therefore, of the overall meaning of the sentence mosaic.
8. We perceive spoken (and written!) language through the wide-angle lens of our physical senses, in mosaics of meaning (we associate part of the mosaic with what it resembles – that is why we can often 'see' the overall 'sense' of the sentence mosaic even before it has been spoken).