

L:8 Language and Mind

Source: J.F. Kess (1992)

An attempt to find out how language and mind are related would require us to be familiar with:

a. Psycholinguistics and b. Neurolinguistics, and if we combined the two as an introductory course, we would call it 'Language and mind'.

This is so because both the sub-disciplines of linguistics study the relation of language and communication to different aspects of brain function.

In other words, they try to explore how the brain understands and produces language and communication.

Neurolinguistics has a very close relationship to psycholinguistics, and it focuses more on studies of function of the brain in learning the language.

It has always been the case that people wanted to study as to how mind responds to the human language.

While studies of language and communication after any kind of brain damage are perhaps the most common type of neurolinguistic studies.

Such studies have given us a perspective as the healthy brain can not be made available for such studies!

Why is so much of emphasis on communication? Because...

Language prevails in every sphere of our life, and most importantly, which is, of course, a manifested function of the language is communication.

Communication heavily depends on two related, however separate activities: Listening and Speaking.

Listening relates things to Comprehension and Speaking would lead to Production.

But the umbilical cord that seems to nest these two activities is Acquisition of language.

These ideas seem to be simple in a sense that..

if you wish to know as to what happens when we try to unfold the ongoing processes of these activities related to human language,

it is but apparent that you would come to know about the human MIND and the way it responds to the activities of human language.

PSYCHO-Linguistics

Let us now examine the DOMAIN of Psycholinguistics as defined by the activities of Comprehension, Production and Acquisition.

Comprehension

- Comprehension is concerned with:
- What do people do when they listen to speech?
 - When they understand it?
 - When they store it?
 - When they remember it?

- Language comprehension is an active/dynamic process rather than a passive one.
- We as a HEARER receive the speech as an input along with its linguistic and extra-linguistic information and construct the most likely interpretation for the linguistic signal we process.
- The structure of language as well as the extra-linguistic facts that also seem to be relatively structured ones.
- One of the aspects of this extra-linguistic information can be vast but well-organized inventory of general knowledge.
- Examples: a. eating out in a restaurant b. ordering for tea/wine/ice-cream
- The situation becomes rather complex when INFERENCES are constantly made on what is OVERTLY said, what is IMPLIED, what is **understood** and what is **generally known**.

- Besides these extra-linguistic information about the received input the hearer also has to perform a ‘multi-level’ analysis with regard to the ‘linguistic-structure’ of the incoming speech.
- **Phonological analysis:** /r/ or /w/ = rounding of the lips, need to pay attention to other acoustic cues that could let us distinguish between the words, *red = wed*
- **Morphological analysis:** once we know the plural ending (productive one) in English, we can go on segmenting the words such as *bees, trees, knees, keys* but not for *cheese* (remember, acoustic cues ONLY)
- **Syntactic analysis:** *John is easy to please. John is eager to please.*

- **Lexical assignment:** lexical item, meaning in the lexicon and the case of metaphoric references
- For Exp. John elapsed for an hour (sleep). Jenny persuaded Egypt.
- **Assignment of appropriate Semantic roles:**
- Exp. The key opened the door. The door opened. The door was opened by the boy with the key. [The boy opened the door with the key] instrument, acted-upon patient, passive, AGENT
- Pragmatic factors: (speech act) Exp: Can you open the door? This is not a simple question and can not be answered in yes/no form, rather one has to act upon this command which is not present in the structure of the sentence.
- All of this is not only true and required for a just a sentence but we have to have the heuristic short-cut to comprehend the discourse as a whole.

- So, Comprehension seems to happen like as follows:

»Phonetics

»Phonology

»Morphology

»Syntax

»Semantics

»Pragmatics

Production

- In the study of production, we wish to know:
- Why and how people say what they say.
- We must be aware that comprehension and production are not the mirror images
- In Production, the speaker has a message to communicate and the message is encoded.

What are the problems in encoding the message

- The first problem in encoding the message for the speaker, who was a hearer in earlier context, is to find out the underlying intention that might have generated the utterance.
- If one fails in guessing the underlying intention, s/he won't be able to encode the message properly and will have problems in reconstructing it back for the purpose of production.
- The ambiguous sentences are the best example in this context. Exp: **John or Tom loves his mother**. Out of the two or more meanings that the sentence can unfold, just ONE of them happens to be appropriate in the context.
- How will the listener, who has to assume the role of speaker, know the intended meaning of the ambiguous sentence ?
- Because it is ONLY the speaker of the utterance who knows the intended meaning in the context.

- It is, therefore, important to understand that the STRATEGIES for comprehension and production may not be the same. However, the linguistic tools that are made useful in both the activities may definitely be similar or related.

- **STEPS for PRODUCTION**

- First of all, the speaker must choose/select/settle down with the so called ‘PROPOSITIONAL CONTENT’ or the ‘idea that has to be conveyed’.
- The logico-semantic-syntactic requirement of a sentence is what must be understood by the propositional content of the sentence.
- In logic, a proposition refers to the sense of a Declarative Sentence, with all ambiguity, vagueness and deixis resolved, so that a definite truth value may be assigned to the utterance.
- Semantic requirement of a sentence happens to be to ensure the role-relationship of the participants (act-ants) in the clause. This is also known as thematic-roles.

- The syntactic requirement of the sentence is to provide the appropriate places for the arguments in the clause.
- It also requires the speaker to choose the correct tense and aspect markers of the target language.
- With this background knowledge, we can check out the following example: *Mac gave Jenny a gift*, where a proposition having a verb ‘give’ as its predicate demands the actants Mac, Jenny and the gift as its arguments.
- These arguments are given the thematic roles such as Agent, recipient and the theme respectively.
- The abovementioned facts complete the requirements of the ‘propositional contents’ of our sentence.

- Next important step for the production of the speech is to know that **we use the language to perform functions.**
- To make the language perform a function means that we use words to get people ACT for you.
- So, we must decide upon the format of the speech-act at the time of encoding a message. Polite VS impolite, needed or not needed
- Exp: Would you (kindly)/Could you/ can you--
- Close the door.

- After this, the speaker who is encoding the message must be alert and aware of the extra-linguistic factors or the general knowledge that would be useful to exploit the beauty of the communication system without wasting the words for it.
- Once the ‘propositional contents’ and ‘speech-act’ requirements of the encoding process have been achieved, **the utterance must be garlanded with the grammatical outfits.**
- The issue of language specific rules, following the guide-lines of grammatical restrictions, such as:
 - A. word-order of the language
 - B. Meaning composition of the lexical items
 - C. Taking care of the morphophonemic rules for the grammatical morpheme like tense, aspect and case etc.

- D. Precaution must be taken not only for the regular past and plural forms such as ‘missed’ and ‘roses’, but also for irregular past and plural such as ‘broke’ and ‘mice’.
- E. The appropriate phonetic representation for the sound must be taken care of. Exp. the need of the rounding the lips for /r/ in ‘red’ but not in ‘hair’ must be decided by the mind in the appropriate context.
- A major difference in comprehension and production is that in production of the speech, **self-monitoring and controlling** the above mentioned steps is possible and they allow the speaker to control the encoding process for the betterment of the speech even after one or two utterances.
- Finally, we must take care of the **constituent structure** that is assigned by the encoders

So, Production seems to happen like as follows:

- »Pragmatics
- »Semantics
- »Syntax
- »Morphology
- »Phonology
- »Phonetics

Acquisition

- Acquisition deals with how these complex procedures of ‘comprehension’ and ‘production’ of the speech take place and develop in young children who acquire their native language.
- An understanding of the production and processing of natural language by the adults is, of course, a necessary prerequisite for setting the parameters of what children must acquire in the course of their linguistic and cognitive development.
- Obviously, I am trying to avoid the issue as there would be a full course for the topic ‘Developmental Psycholinguistics’ next semester, so wait

– That’s all ☺