



# PSYCHOLINGUISTICS

## THIRD LECTURE

CURRENT DIRECTIONS IN PSYCHOLINGUISTICS

# CURRENT DIRECTIONS IN PSYCHOLINGUISTICS

- Discussion on the current progress in psycholinguistics is of prime importance and interest. As Cutler (2006) would say, “it is always more precious to describe events that are currently in progress than those well in the past, but it is possible to discern several themes of psycholinguistic work over the last 15 to 20 years.”

## CONT...

- One is that although early psycholinguistics primarily focused on syntax, more recently there has been an upsurge in the interest in phonology, semantics and pragmatics.
- These developments have led to a more well-rounded field, with research that cuts across these different areas.

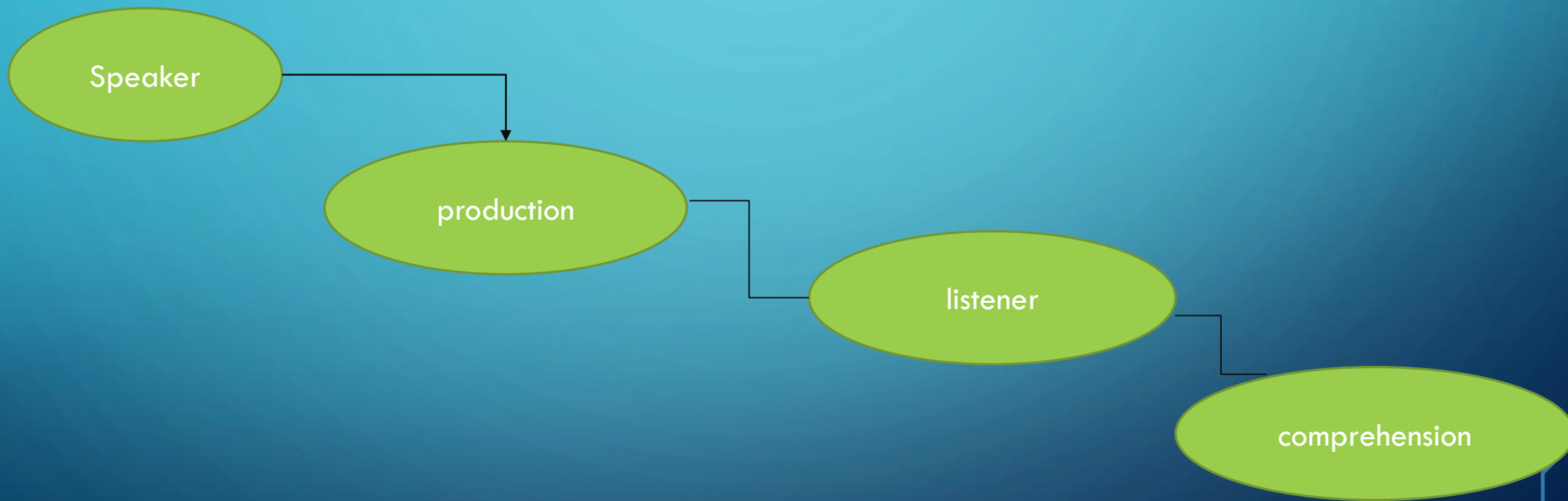
## CONT...

- Second, although early research in psycholinguistics focused on language comprehension, there has been a strong surge of interest in language production recently.
- It is tempting to think that comprehension and production are mirror images of one another.

# EXAMPLE

- During conversation a speaker wishes to convey a message to the listener or listeners via language. His choice of lexical items is not random rather he chooses them according to the context knowing the listeners. Thus, speaker produces a message while using a specific register to convey the theme in grammatical sentences.
- On the other hand, the listener perceives the message and decodes it to have a proper comprehension.

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- Third, the development of techniques that allow researchers to see visual images of the brain has stimulate considerable interests in the brain mechanisms associated with language.
- For more than a hundred years, the primary method used in neurolinguistics was the study of language in individuals with ***aphasia***. We can now observe the functioning of normal brains during various language tasks. The results of these studies has greatly deepened our understanding of ***neurolinguistics***.

# APHASIA

- The study of aphasia has a close link with neurolinguistics and according to Dictionary of Linguistics an aphasia refers to “loss of the ability to use and understand language, usually caused by damage to the brain. The loss may be total or partial, and may affect spoken and/or written language ability. There are different types of aphasia: **agraphia** is difficulty in writing; **alexia** is difficulty in reading; **anomia** is difficulty in using proper nouns; and **agrammatism** is difficulty in using grammatical words like prepositions, articles, etc.
- Aphasia can be studied in order to discover how the brain processes language.



# **NEUROLINGUISTICS**

- According to Dictionary of Linguistics, Neurolinguistics is “The study of the function the brain performs in language learning and language use. Neurolinguistics includes research into how the structure of the brain influences language learning, how and in which parts of the brain language is stored (see memory) and how damage to the brain affects the ability to use language (see aphasia).

## CONT...

- Finally, psycholinguistics has matured to the point that we are beginning to see applications of psycholinguistic principles that are useful to society. At the same time, tangible progress has been made in applying psycholinguistic research to topics such as reading (Just & Carpenter, 1987), bilingualism (Bialystok, 2001), and language disorders (Tartter, 1998).

## CONT...

- These advances have been made possible by instance, just and Carpenter's book on reading comprehension integrates linguistic theories of sentence structure, computer simulations of reading and psychological experimentations on eye moments. These results gives us reasons to believe that interdisciplinary work on language, although it can produce tensions between different approaches, can ultimately be fruitful.

# PSYCHOLINGUISTICS AND NEUROLINGUISTICS

## • Psycholinguistics

- Psycholinguistics or psychology of language is the study of the interrelation between linguistic factors and psychological aspects. The field is concerned with psychological and neurobiological factors that enable humans to acquire, use, comprehend and produce language. The discipline is mainly concerned with the mechanisms in which languages are processed and represented in the brain.

## CONT...

- Modern research makes use of biology, neuroscience, cognitive science, linguistics, and information science to study how the brain processes language, and less so the known processes of social sciences, human development, communication theories and infant development, among others.

## CONT...

- There are a number of sub-disciplines with non-invasive techniques for studying the neurological workings of the brain.
- For example, neurolinguistics has become a field in its own right. Initial sorties into psycholinguistics were found in philosophical and educational fields, due mainly to their location in departments other than applied sciences (e.g., cohesive data on how the human brain functioned).

## CONT...

- Psycholinguistics has roots in education and philosophy, and covers the "cognitive processes" that make it possible to generate a grammatical and meaningful sentence out of vocabulary and grammatical structures, as well as the processes that make it possible to understand utterances, words, text, etc. Developmental psycholinguistics studies children's ability to learn language.

# NEUROLINGUISTICS

- Neurolinguistics is the study of the neural mechanisms in the human brain that control the comprehension, production, and acquisition of language. As an interdisciplinary field, neurolinguistics draws methods and theories from fields such as neuroscience, linguistics, cognitive science, communication disorders and neuropsychology. Researchers are drawn to the field from a variety of backgrounds, bringing along a variety of experimental techniques as well as widely varying theoretical perspectives.



## CONT...

- Much work in neurolinguistics is informed by models in psycholinguistics and theoretical linguistics, and is focused on investigating how the brain can implement the processes that theoretical and psycholinguistics propose are necessary in producing and comprehending language. Neurolinguists study the physiological mechanisms by which the brain processes information related to language, and evaluate linguistic and psycholinguistic theories, using aphasiology, brain imaging, electrophysiology, and computer modeling.

# HENCE

- Psycholinguistics is the study of how language works in the human mind (or psyche), and neurolinguistics is the study of what happens with language in the human brain. Psycholinguistics is concerned with the psychological aspects involved in how people acquire language and how they come to understand and produce language.

## CONT...

- Psycholinguistics also studies how cognitive processes allow people to form grammatical and consequential sentences out of words and structures. Neurolinguistics is focused on the neural mechanism of the brain that controls language. It investigates how the human brain applies the processes necessary for producing and understanding language. Neurolinguistics studies how the brain processes information, and it evaluates theories by using technology.

# CLINICAL LINGUISTICS

- A branch of linguistics that involves the application of linguistic description and analysis to the field of speech pathology.
- Clinical linguists are concerned with various types of communicative impairment, including developmental speech and language disorders and autism.