



PSYCHOLINGUISTICS

SECOND LECTURE

HISTORICAL CONTEXT

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- Psycholinguistics as already been defined, is the study of how mind processes and produces language. The discipline has a long historical background before reaching the current status.
- According to Blumenthal (1987) psycholinguistics flourished twice: once around the turn of the last century principally in Europe and then in the middle of 20th century in the United States.
- In the beginning of 20th century some linguistics turned to psychologists to know how human beings use language while in the later period psychologists turned to linguists for insights into the nature of human language.

Early Psycholinguistics

The development of 1st Psychological Laboratory and Wilhelm Wundt (the father of psycholinguistics)

From the development of the first psychological laboratory, at University of Leipzig in Germany in 1879, until the early 1900s, psychology was defined as the science of mental life. An important figure in early psychology was Wilhelm Wundt (1832-1920) a man trained in psychology who believed that it was possible to investigate mental events such as sensations, feelings and images by using procedures as rigorous as those used in the natural science.

CONT...

- Moreover, Wundt believed that the study of language could provide important insight into the nature of the mind. Blumenthal (1970) refers to Wundt as the master psychologist because Wundt wrote extensively about many different aspects of language. His concerns included grammar, phonology, language comprehension, child language acquisition, sign language, reading and other topics of contemporary concern.

CONT....

- One of Wundt's contributions to psychology of language was developing a theory of language production.
- He regarded the sentence, not a word, as the primary unit of language and saw the production of speech as the transformation of a complete thought process into sequentially organized speech segments.

EDMUND HUEY

- Some significant developments were also being made in measuring various language processes. An example comes from the 1908 works of Edmund Huey (1968) who examined reading from the perspective of human perceptual abilities. Huey who regarded the achievement of reading as “the most remarkable specific performance that civilization has learned in all its history” employed **eye-voice span** (the lag between eye position and voice when reading aloud, about six or seven words) and the tachistoscope (a machine that presents visual stimuli for every brief period of time) in his studies.

BEHAVIORISM AND VERBAL BEHAVIORISM

- In the first few decades of 20th century in the United States, there was mounting opposition to the focus on mental life as a goal for Psychology.
- Behaviorists favored the study of objective behavior, often in laboratory animal as opposed to the study of mental processes. Moreover, behaviorists had a strong commitment to the role of experience in shaping behavior.
- Stress was given on the role of environmental contingencies such as reinforcement and punishment and on models present in the immediate environment.

1920s TO 1950s

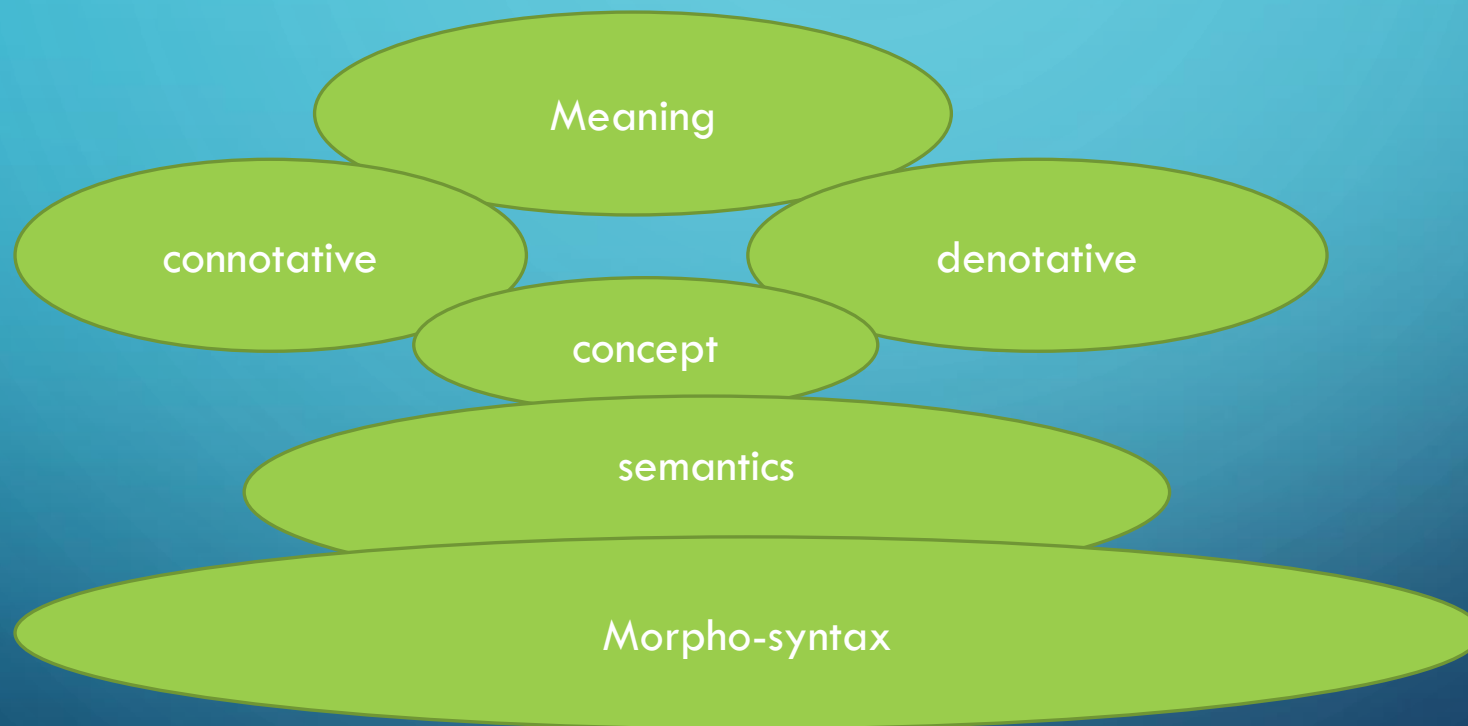
- From the 1920s to the 1950s, psychologists expressed relatively little interest in language. Behaviorists preferred instead to speak of VERBAL BEHAVIOR.” The behavior of speaking correctly was, it was assumed, the consequence of being raised in an environment in which correct language models were present and in which children’s utterance was described by the behaviorist B. F. Skinner (1957) in his book Verbal Behavior.

THE CONCEPT OF MEANING

- Meaning was a major topic of research at that time. A number of behavioristic accounts of meaning were developed, most of which emphasized associations among words.
- Association among words refers to the usage of words in grammatical sentences in a context. This attitude towards meaning shows a sort of inclination towards Morpho-syntax and its relation with semantics.

MEANING

Meaning and Concept



NOBLE AND MCNEELY (1957)

- Noble and Mcneely constructed an index of the “meaningfulness” of individual words by measuring the number of associations a person could produce in a designated period of time.
- Later studies showed that high-meaningfulness words such as kitchen were more easily learned in a variety of tasks than low-meaningfulness words such as icon.

OSGOOD'S CONTRIBUTION

- It was the time when Osgood and his associates developed the semantic differential, a tool for measuring the associative meaning (discussed in Semantics) of words by asking people to rate words on dimensions such as good/bad and strong and weak (Osgood, Suci, & Tanenbaum, 1957).

DEVELOPMENTS IN LINGUISTICS

- Similar developments were occurring within linguistics. Linguists of this period tended to stress behavioristic treatment of language in which reference to mental states or processes was meticulously avoided. A sort of shift from psychology to behaviorism was seen.
- Nevertheless, despite the similarities between the two fields, little interdisciplinary interests or activity took place. One striking example of this is the work of linguist Leonard Bloomfield.

BLOOMFIELD

Bloomfield was once a student of Wundt and published his book in 1914 that emphasized many Wundtian themes. However, his more widely known 1933 text took a more behaviorist view. In his preface to the later book, Bloomfield tried to distance himself not only from Wundt but from psychology as a whole.

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Bloomfield further stated:

In 1914 this phase of exposition was based on the psychological system of Wilhelm Wundt, which was then widely accepted. Since that time there has been much upheaval in psychology, we have learned, at any rate what one of our master suspected thirty years ago, namely that we can pursue the study of language without reference to any one psychological doctrine, and that to do so safeguard our results and makes them more significant to workers in related fields (Bloomfield, 1933).

LATER PSYCHOLINGUISTICS

- ***The First Conference Sponsored by Social Science Research Council***

By the early 1950s, a sort of interest was seen among psychologists and Linguists to have discussions on the relation between linguistics and psychology. This has beautifully been described by Tanenhaus (1988) as follow:

“In 1951 the Social Science Research Council sponsored a conference that brought together several leading psychologists and linguists”. It was an initial advancement in psycholinguistics

A LINK BETWEEN CHOMSKY'S ARGUMENTS AND ASSOCIATIVE CHAIN THEORY

- One theory advanced by behaviorists is called the “ASSOCIATIVE CHAIN THEORY”, which states that a sentence consists of a chain of association between individual words in a sentence. Put another way, each word in a sentence serves as a stimulus for the next word and thus use the entire sentence is produced left to the right. Lashley (1951) had earlier argued against such a view, claiming that there is something more to the structure than the association between adjacent words.

EXAMPLE

- In a sentence
- Saeed is.....
- The word **(is)** is a stimulus for the next word and thus use the entire sentence is produced left to the right. For instance,
- Both semantically and Syntactically it is expected that one of the given cases can come:
- A)a teacher. (the singular name Saeed indicates and is a stimulus for the use of indefinite article or Noun phrase)
- B)teaching English. (the word is indicates and is a stimulus for the use of progressive form of verb)
- C)tired. (the word is also indicates and is a stimulus for the use of passive voice)

CONT...

- Chomsky suggested that associations between words could possibly explain the existence of the sentence and their existence suggests that there are long-range dependencies among words in a sentence.
- Again, a theory that stresses a simple association between adjacent words is inadequate.

CHOMSKY'S ARGUMENT "POVERTY OF STIMULUS"

- Chomsky has also argued that language acquisition cannot be explained in terms of children's language experience. His primary argument is called the **POVERTY OF STIMULUS ARGUMENT**.

This argument states that there is not enough information in the language samples given to children to fully account for the richness and complexity of children's language.

CONT...

- The Chomskyan revolution had a powerful effect on the psychological thinking about language. In the late 1960s Chomsky (1968) noted that “the study of language may very well, as well traditionally supposed, provide a remarkably favorable perspective for the study of human mental process” (p. 98). And that linguistics could be profitably viewed as a branch of cognitive psychology.
- Slobin (1971) puts it, “a person who has learned a language has formed something that is psychologically equivalent” to a grammar (p. 3).

GEORGE MILLER

- George Miller, a psychologist, created an important bridge between psychology and linguistics by introducing psychologists to Chomsky's ideas and their psychological implications. Miller collaborated with Chomsky on several articles and papers in the early 1960s and was at the forefront of research during this period to dominate the psychological reality of linguistic rules.

ERIC LENNEBERG

- Theoretical analysis of language development emphasized the role of innate factors. Together with Chomsky, the most influential person in this regard was Eric LENNEBERG, whose 1967 book “Biological Functions of Language” pulled together evidence from aphasia, studies of delayed language development and the available neurophysiological information an elegant argument for the role of innate factors of language development.

DAVID MCNEILL (1966, 1970)

- Another strong advocate of innate factors was David McNeill (1966, 1970), who proposed a theory of development based on the concept of language universal.
- It was the time when some psychologists became suspicious of linguistics, preferring instead to develop a psychological view of language that was not tied to any specific linguistic theory.

RATIONALISM AND EMPIRICISM

- During these controversies a sort of distinction between the two intellectual traditions Rationalism and Empiricism was drawn.
- Rationalists emphasized the role of innate factors in human behavior whereas empiricists stressed the role of experience in behavior. But there is another difference between the two traditions that deals with the mode of inquiry.

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- Rationalists emphasized the use of argument, whereas empiricist favor the collection of data as a mean for evaluating hypotheses. Linguists approach language in the rationalistic manner, while psychologists even those who are sympathetic with the notion of innate factors, favor the empirical method.

THE SECOND CONFERENCE

- A second larger conference occurred 02 years later and included anthropologists and communication engineers as well as psychologist and linguists.

It was out of these exchanges that the term psycholinguistics first came into use (Osgood & Sebeok, 1965).

The term was quite new for the respondents even. Some of them thought that it would not attract psychologists studying language. However, the term got deep rooted.

Interdisciplinary Period and the Emergence of Noam Chomsky

- The second period of interdisciplinary psycholinguistics really took hold in the late 1950s, beginning with the emergence of Noam Chomsky.

Chomsky is generally regarded as the most influential figure in 20th century linguistics.

Newmeyer (1986) has characterized the Chomskyan influence a revolution within linguistics. Chomsky has played a powerful role in how psychologists perceived language because he argued that the behaviorists' accounts of language were quite inadequate (Chomsky, 1957, 1959).