

Language Comprehension Assignment 2

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Q) Discuss the contribution of BF Skinner & George Miller to the emergence of the field of Psycholinguistics

⇒ BF Skinner

B.F. Skinner was a psychologist who was instrumental in shaping the field of psycholinguistics. His most notable gift to psycholinguistics is the theory of verbal behaviour. According to this, he claimed that humans learn language by observing others, i.e. language is a skill acquired by external environment and is not innate.

This theory promoted the research of understanding how children learn language by observation and how reward and punishment affect the language learning of a young mind. He claimed that if a child is rewarded for saying a word, he/she is more likely to use that word regularly. The opposite happens, if he/she is punished for saying a word.

BF Skinner's work helped to establish behaviourist approach to ~~the~~ language learning, and his work is still studied upon and ~~as~~ as a foundation in this field.

George Miller

Like BF Skinner, George Miller was also a psychologist. He has major contributions in the fields of language processing and cognitive psychology.

According to George Miller, language is processed hierarchically, i.e. small units like sounds combine to form large units like sentences. ~~When humans~~ Humans perceive language in this hierarchical manner and this itself enables them to have an efficient understanding of the language according to Miller.

His work also said that humans can keep about 7 items on an average in their short term memory and based on this they get involved in conversations. This was his theory of short-term memory.

Apart from cognitive psychology, Miller was ~~one of~~ the first person to develop computer program that understood natural human language. He laid the basis for natural language programming.

On the whole, Miller's work not only helped us understand how humans perceive language and get involved in conversations, but also helped us develop artificial intelligence programs that could understand human natural language.

Q. Discuss the importance of the 'lexical Decision Task' experiments in the development of theories on language processing.

→ Lexical Decision Task is one of the most popular experiments used in psycholinguistics which has been instrumental in the development of theories on language processing. This experiment involves showing a group of letters posed as a word to participants to which they have to respond by choosing whether or not it is an actual word. The accuracy and response time are measured and used to derive inference.

This experiment measures multiple aspects of language processing such as recognition of word, semantic processing etc. One of the most popular inferences of this experiment is the discovery of lexical frequency effect. This effect states that people respond fast and accurately to words that are high used very frequently in general conversation (e.g., door) as compared to those words that are used less frequently (e.g., 'enclosure'). Through observation of this effect, it is inferred that low frequency words are processed differently on the basis of their frequency of use in an language.

Another effect that has been found due to lexical Decision Task is "semantic priming effect". According to

this effect, people recognize a word faster and more accurately when the word is preceded by a related word. For eg, people recognize "pink" if it comes after "color" as compared to it coming after "computer". This effect goes to develop a ~~theory~~ theory that suggests that humans process a word not just as a combination of letters but as a thing that the word means. This helped in the development of semantic language processing.

Through lexical decision task, researchers have been able to find the importance of context in language processing. There are words which have more than one meaning, say "bat" which means a wooden playing tool as well as a flying mammal. The word preceding the target word directs or obstructs the person to infer perceive the target word as a particular meaning. For eg, if "bat" is preceded by "cicket", we would think of it as wooden playing tool, while if it was preceded by "fly" we would think of it as flying animal. Hence, if a context is given, people tend to perceive the same word differently basis the context. Also, if some unrelated word say "door" preceded "bat", then a person would perceive one, both or no meaning at all as the words are contextually ~~unrelated~~ unrelated. Hence, the presence of contextually related word facilitates understanding of any word when compared to the case of presence of contextually unrelated word.

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To summarize, Lexical decision task has been ~~a~~ a key instrument in the understanding of language processing and development of its theories. This ~~is~~ has also helped in developing theories to understand the cognitive language processing.