

Chomsky's Question of Innateness and Language Acquisition Acceptance and Disapproval

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I. Introduction:

A whole new subdiscipline has developed in recent years called psycholinguistics . This can be seen as the intersection between psychology and linguistics. It has also some relation with logic and the philosophy of language . It links also with neurolinguistics (the study of the neurological basis for language) . The above discipline tries to show the relation between thought , mind and language. The conception of the relationship of thought , language and speech is clearly a mentalistic one . According to that conception , a person is regarded as having mind that is distinct from that person's body . Body and mind are seen as interacting with one another.

In this work , we try to reflect the different views about Chomsky's belief that a sizeable part of early linguistic learning comes from an innately specified language ability in human beings , and that the role of the environment and the like effects is no more than activating this process of language acquisition .

Also, Chomsky's other belief (acquisition of even the barest rudiments of language is quite beyond the capacities of any other wise and intelligent ape) will be criticized by psycholinguists owing to the obvious capacities of the trained chimpanzees to cope with some signs of language.

More points are going to be discussed in the following pages beginning with "Chomsky and mentalism" and ending with some views that stand with or against the question of innateness.

2. Chomsky and Mentalism

Lyons (1981:240-2) states that (mind) and in a more technical sense covers not only man's reasoning faculty but also his feelings , memory , emotion and will . So what is traditionally referred to as language and mind covers the more recent work in linguistics , i.e. psychology and the cognitive field in particular .

Concerning mentalism , Lyons (ibid) mentions that Chomsky and his followers claim that language provides evidence for (mentalism) : i.e. , for a belief in the existence of mind . Chomsky and those who share his view are not committed to the view that the mind is some non-physical entity distinct from the brain or any other part of the body.

3. Language and the Brain: Language Localization:

Lyons (ibid : 248) returns to say that it is the brain that plays the most significant role in the operations that we normally describe as mental . The human brain is very complex . Its cerebrum is divided into two halves or hemispheres ; the right hemisphere controls the left side of the body whereas the left hemisphere controls the right side . For most people language is controlled by left hemisphere . The above process is called localization . Lateralization is maturational , in the sense that it is genetically preprogrammed and takes time to develop. Lateralization appears to be specific to human beings . It is thought to begin when the child is about two years old and to be complete at some time between the age of five and the onset of puberty . Thus , lateralization is precondition to language acquisition and they begin at the same time.

Tackling the same subject but rather in details , Akmajian et al (2001:528) state that for a century and a half , scholars have debated the question of speech and language localization within the brain . In the 1860 , scientists known as localizationists speculated that the functioning of specific regions in the brain was responsible for language . Some other scientists believe that speech and language were the consequence of the brain functioning as a whole.

Akmajian et al (ibid) add that , in 1861 , Paul Broca , a French surgeon and anatomist , mentioned that a patient who had had extreme difficulty in producing speech had been found to have a damage in the posterior inferior part of the frontal lobe in the left cerebral hemisphere now known as (Broca's area) or (the motor speech area). Broca extended his claim about speech localization by reporting that damage to sites in the left cerebral hemisphere produces aphasia whereas destruction of corresponding sites in the right hemisphere leaves capacities intact.

In (1874) , Carl Wernick , a young German physician could strengthen Broca's claim that left hemisphere structures are essential for speech . By that Wernick could generate an intense interest in the

hypothesis that different areas within the left hemisphere fulfil different functions.

It seems that scientists ,today , agree that specific neuroanatomic structures , generally of the left hemiophere are vital for speech and language but still debates continue as which structure are committed to the various linguistic capacities . It had been discovered that 70 percent of all individuals with damage to the left hemisphere experienced some type of aphasia (difficulty in speech). Akmajion etal (ibid : 528) continue to say that confirmation of left cerebral dominance has also come from many research techniques introduced ,for example, by Wada (1949) and Penifield (1959) . The above scientists were neurosurgeons and through surgeries in brain they could conclude that three areas of the left hemisphere are vital to speech and language : Broca's area , Wernick's area and the supplemental (motor area). Wada , Clarke and Hamn (1975) , Witelson and pallie (1973) reconfirm the finding that suggests the readiness of the left hemisphere for language dominance at birth . All this , as we think , supports the idea that says that human beings are naturally equipped with what helps in producing and acquiring language and they differ in that from other primates.

4. Acquisition process :

Considering the process of acquisition , Lyons (ibid : 244) believes that what has been called as Chomskyan mentalism covers the central problems in the philosophy of mind and the acquisition of knowledge . With that , Chomsky can be Considered one of the rationalists who take the view that the principles where by the mind acquires knowledge are innate : that the mind is not simply a blank slate upon which experience leaves its imprint . The acquisition of language is a particular instance of the more general process of the acquisition of knowledge . This as , Lyons (ibid) believes, would raise the following question : Is the possession of the appropriate concepts a precondition of the acquisition and correct use of the vocabulary of one's native language ?.

Thus , and like predecessors in the rationalist tradition , Chomsky takes the view that language serves for the expression of thought ; that human being are genetically endowed with the capacity to form concepts rather than other primates and that concept formation is a precondition of one's acquisition of the meaning of words . But Chomsky differs here from others in two respects : he has made it clear that learning or acquiring the grammatical structure of ones native language is similar to the matching of a form of word with meaning . second, he reinforces the idea that the nature of language and the process of language acquisition should be built on the assumption that there is an innate language acquisition faculty . Chomsky considers mind to be like any other body

organs , like the heart or the liver which usually become mature according to a genetically determined programme of development .(Lyons (ibid : 245)).

4-1. Evidence for Innateness : Children and Animals :

4-1-1. The LAD and not the Environment :

Scovel (1998: 17 – 21) confirms the idea of innateness through saying that even at a very young age before they have any conscious awareness of the difference between parts of speech such as nouns and verbs , young humans rapidly acquire the notion that words do not combine randomly but follow a systematic pattern of sequences . This system allows young children to generate a wide range of linguistic utterances while chimps (the chimpanzee) does not appear to have any pattern or system but randomly throw signs together in a haphazard fashion . Once more the above can be considered one measure of the weight of evidence for innateness and that the acquisition of human language is not based solely on the external influence of child's environment .

Yule (1996 : 30 – 32) verifies that human language is different from the language of other creatures . It is difficult for other creatures to develop an understanding of this specialized human mode of expression . Yule (ibid) says that the standard explanation for the expressions, commands and signals understood and followed by different animals is that such animals , produce a particular behaviour in response to a particular sound stimulus but do not actually understand the meaning of words uttered . After all , animals cannot produce human language . More than that we , do not generally observe animals of one species learning to produce the signals of another species . Baby and puppy , Yule (ibid) adds , grow in the same environment and having mostly the same things but about two years later , the baby makes human noises and the puppy does not . A closer example would be Chimpanzees which do have 99% of its basic genetics in common with the humans .

In an attempt to teach a chimpanzee to use human language , two scientists (Luella and Winthrop) in 1930 raised an infant chimpanzee called Gua with their infant son . The chimpanzee was able to understand about a hundred words but did not say any of them . Viki , another chimpanzee managed to produce some rather poorly articulated words. The above example emphasizes the view that even high class animals do not have the ability to produce human speech sounds . It is right that apes , gorillas and the like animals can communicate with a wide range of vocal calls but they just cannot speak.

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We assume that when young human children make language like noises , we witness language development but when young chimpanzees produce (language like signs) in interaction with humans , scientists are very unwilling to classify this as language use . This problem remains controversial and according to the given mass of evidence , we might suggest that the linguist , Noam Chomsky should revise his claim that " acquisition of even the barest rudiments of language is quite beyond the capacities of even intelligent apes " . The last statement of Chomsky seems questionable owing to the obvious reported capacity of the trained chimpanzees to cope with the above barest rudiments of language . (ibid : 36).

Scovel (1998 : 21) mentions that if linguistic stimuli from child's or chimp's surrounding were indeed solely responsible for language acquisition we would not expect such clear difference between the performance of these two primate species . Moreover Nim and the like apes , would have received a lot of encouragement for their performance ; a matter that many children would not face. On the contrary , sometimes , children may be discouraged and ordered to be seen and not heard. There are even cultures , American tribes in Mexico and Arizona , which discourage young children from engaging in prolonged conversations . All the above encouraged Chomsky and other psycholinguists to claim that a seizable part of early linguistic learning comes from an innately specified language ability in human beings . It seems that Chomsky's position is accepted and strongly defended by a great many contemporary psycholinguists. Children and not other primates remain as creative wordsmiths , as evidenced in the following exchange between a friend and her two – year old :

Daughter : Somebody's at the door .

Mother : There's nobody at the door.

Daughter : There is yesbody at the door.

Scovel (ibid) summarizes his view by saying that apes will never be able to be like human beings in their linguistic capacities and can not even rise to man's collective behaviour or his unique nature . By that Scovel supports Chomsky's views and ideas.

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4-1-2 Rationalists and Empiricists Between Environment and Innateness

Steinberg (1991 : 120) as quoted in Lennenberg (1960) states that , with respect to the issue of innate ideas , all rationalist theorists require relevant environmental experience to activate innate ideas . It could be held that the maturation of brain permits the development of ideas which in turn allows for the development of language . Thus , Lennenberg , Steinberg (ibid) adds , does not favour the innate ideas of Chomsky's e.g , (syntax doesn't have a genetic basis anymore than do arithmetic or algebra) . Whether or not biological maturation of the brain is or isnot necessary for the development of ideas and thought is an issue which is unresolved . The rationalists disagree with one another on whether or not there are specific ideas for language and other ideas of knowledge such as mathematics . Steinberg (ibid : 164) as quoted in Chomsky (1965-1966) , for example , argues that there are ideas inherent in the mind which pertain only to language and they are separate from those involved in mathematics . Others as Bever (1970) , Steinberg (ibid) adds , argue that the innate ideas are of a more general nature . Thus we can say all rationalists do agree that innate ideas alone are not sufficient for the learning of language and some degree of experience is necessary to activate these ideas . All empiricists , on the other hand , agree that no ideas which constitute knowledge are innate in mind for more .

For more let's check the following extract :

" It is enough to note here that concerning English , for example , since the English language itself is less than 2000 years old , it could not have become innate through evolution , furthermore , children whose ancestors come from areas with vastly different language backgrounds , e.g. China , Africa , learn English no differently than do children whose ancestors come from Anglo – Saxon backgrounds " . Steinberg , (1991 : 163 – 164) . All that contradicts with Chomsky's former claims about innateness and language acquisition.

5. Conclusions :

The following can be concluded:

- 1- The question of innateness , Chomsky interested in , is still a matter of controversy and vast arguments between linguists.
- 2- Despite the experiments made and the surgical , anatomical results , what has been collected , I believe , cannot go beyond the theoretical ideas that cannot settle things.
- 3- Human beings , apes , being as high ranked primates should inevitably be rather similar in some natural abilities.
- 4- Being so , it doesnot seem strange that chimpanzees which do have 99% of its basic geneties in common with the human being can understand some signals and produce some noises .
- 5- Considering the above point , it seems suitable that Chomsky should revise his claim that acquisition of even the barest rudiments is beyond the capacities of even intelligent apes.
- 6- As I believe, a simple comparison between the different former views of psycholinguists shows that the tendency is towards agreeing with Chomsky's idea that human beings are genetically endowed with a language acquisition device.
- 7- And finally, I think , man , being the highest rank among primates , should naturally have distinguishing capacities and of these capacities is the ability to successfully acquire and produce language.

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