



---

## A Critical Review of the Innateness Hypothesis (IH)

Le Minh Trung<sup>1</sup>, Do Thi Khac Binh<sup>2</sup>, Lai Van Du<sup>3</sup>,

Dong Nai university, Vietnam.

---

**Abstract:** *Innateness hypothesis proposed by Chomsky has been researched for decades in order to explain the nature of language as well as the relationship between language and human mind. This paper aims to provide a review of the innateness hypothesis which shows that according to the hypothesis the possible resources of the learners' mistakes are shed a light on; besides, the grammar of mature and children also is also proved similar; in addition, the paper also provides spot light on the correlation of second language acquisition. Moreover, the paper also suggests some points for further research.*

**Keywords:** *innateness hypothesis, universal grammar, criticism innateness.*

---

### I. Introduction

Chomsky studied linguistics for years and “had a revolutionary impact on the study of language” (Wasow, 1973) and for long, the well-known theory of universal grammar has attracted the researchers. Chomsky also proposed the innateness hypothesis which has been popular years and some scholars were interested in researching it in order to shed a light on the process of absorbing language for the application of learning languages. In fact, the process of learning language contains three main stages of learners' experience language, language faculty and grammar of language. These stages were shown by the hypothesis proposer to appear alternatively in a fixed order. In several decades, the hypothesis had been accepted and studied. Some authors (O'Grady, 2008; Putnam, 2013) have few studies on the innateness hypothesis with specific impact from the hypothesis of Chomsky in terms both linguistics and psychology of learning language. The prior studies have proved the process of learning language as well as the language acquisition device so that the advantages of this hypothesis were proved. However, the hypothesis never meets fully the satisfaction of community of researchers and few criticisms have appeared due to the limitations of the innateness hypothesis (Gopnik, 2003; Parisse, 2005). This paper looks into the possible resources of learners' mistakes together with children and adult grammar difference and the similarity of children languages acquisition. Moreover, other criticism about the innateness hypothesis is also raised in the central part. In conclusion, as the innateness hypothesis has big impact on the learning method development with continuing debate among the researchers which means further research should be conducted in the field of the hypothesis so that the spot light would be provided.

### II. Possible resources of learners' mistakes

IH has attracted the researchers together with scholars to study for years in order to provide the spotlight on this hypothesis so as to take the advantages and later on benefit the theory. Putnam (2013) wrote that the daring hypothesis was proposed by Chomsky, which argued that the human brain is programmed with natural languages by some “specific and structured aspects”. In greater detail, the process of programming is named the “Explanatory models in linguistics”. In fact, VanPattern & Williams (2014) reported that the universal grammar (UG) theory developed by Chomsky, which

refers the device in human brain named “black box”; the authors reported that “The central tenet of the theory is that the linguistic competence of native speakers is underdetermined by the input that children are exposed to, hence that an innate UG is implicated in language acquisition”. Indeed, Chomsky had pursued the theory of UG for several years in order that he could discover the nature of the language that human utilize and the correlation between human brain and the prior phenomenon. In another hand, Oyama (1990) also mentioned that the “innateness” notion is relevant to the “experience as developmental mechanism”. From the mentioned perspectives, the innateness hypothesis prefers the human with universal grammars can absorb the second language. Moreover, Chomsky might imply the notion of “input”, which results in the learners’ mistakes and other incidents.

According to the innateness hypothesis, the first possible resources of the learners’ mistakes are the inputs which are what the learners receive from the surrounding environment. “A list of utterances, containing both grammatical and ungrammatical sentences; a list of corrections, which enable him to classify the input utterances as grammatical or ungrammatical, and some information concerning which utterances count as repetitions of earlier utterances” can be considered “input” (Putnam, 2013). In fact, Corder (1981) (as cited in Johnson, 1988) mentioned the circumstance that when a learner makes something wrong and that his or her ability to perform the competence of language is in “the difficult operating condition” is mentioned mistake. In addition, the inputs, under the perspective of innateness hypothesis, that learners receive have to be comprehended in a special device in human brain and sequentially become human language competence. In the first stage, the inputs including the mentioned points such as utterances and corrections when learners make mistakes for the earlier utterances can be re-comprehended. Hence, the learners’ experience of language leads to the situation that input affects the competence of learners. Apparently, the language material including mistake cause a load of mistakes for learners if the inputs have problems. The nature of this phenomenon is that the learners, over time, absorb the surrounding environment with full of languages materials. Therefore, the material that the learners absorb, through the time, result in the learners’ language competence. Accordingly, the materials with the problems, certainly, leads to the mistakes of the learners. Besides, the mentioned correlation for earlier utterances which learners receive also have impact on the mistakes. The innateness hypothesis mentioned the experience of the language from the learners, hence, with the exposure of learners toward the mistake corrections could be complicated and lead to the similar situation of making mistakes from the learners. Briefly, the innateness hypothesis showed that learners’ mistakes can come from the data input, which means what the learners receive.

Moreover, from the perspective of the innateness hypothesis, the way how the prior mentioned resources of language are delivered also contribute the learners’ mistakes sources. Indeed, the method of delivering the language materials plays an important role for learners to understand and utilize correctly. The language materials would be comprehended, that was because the function of language faculty. Actually, from the view of innateness hypothesis, the term language faculty was mentioned by Chomsky in his work in 1965 (as cited in Parisse, 2005). The faculty was considered being necessary for each person to language acquisition for both the matured and children. With function of comprehended the inputs, the language faculty accounts for receiving the information and treated the information that later on contributes the learners’ competence. Hence, the information should have to be received appropriately according to the ability of the language faculty in each person. That the circumstance of being out of the ability of the language faculty can be considered complicated and results in the misinterpretation of the input, which causes the learners’ mistakes. In addition, Block (2014) wrote about the innateness hypothesis :“no organism can learn without a mechanism that accomplishes this learning”, which means the process of learning should take place with suitable elements like the data input and the language faculty treatment. More important, the process of how the data is delivered to the language faculty appears to be significant as without the appropriate way of sending information to the learners, the learners might be confused and misinterpret the data. Therefore, the situation of inappropriate method of delivering data input leads to the mistakes of learners. All things considered, the learners’ mistakes resource can be constituted by the way how information of language materials are delivered to the learners.

In addition, another possible source of learners' mistakes can be the cultures differences according to the innateness hypothesis. As the innateness hypothesis is mentioned in second language acquisition, the learners not only children but also adults can have obstacles learning the second language due to the factors coming from the culture of the target language. Kramsch (2014) reported that the guide to the social reality is language, which means language is a tool to encode the society. Moreover, Marginson & Dang (2017) stated that Vygotsky suggested : "...culture becomes part of each person's nature". These prior mentioned points lead to the circumstance of differences of cultures can result in the learners' mistakes. The big picture of this phenomena is that the linguistic signs in each culture are used to encode the particular social culture pattern while the learners from different cultures are trying to learn the target language may misunderstand the culture patterns of this language; therefore, they have difficulty utilizing the language or in another hand, the learners cannot use the language correctly which means mistakes. In short, culture differences can cause the learners' mistakes from the point of view of innateness hypothesis.

In short, according to the innateness hypothesis, the possible sources of learners' mistakes come from the data input, the method of delivering the data and some other factor like the culture differences. However, the other researchers added that the possible resources of mistakes can also come from the L1 or L1 acquisition. The resources of mistakes from L1 is considered the limitation of innateness hypothesis in explaining the mistakes of learners and hence, the appropriate solutions can be suggested under the certain circumstance.

### III. Child grammar and adult grammar

One the of most important notion that Chomsky (1965) (as cited in Clahsen & Muysken, 1986) indicated in his theory and hypothesis is the grammar. The term "grammar of language" refers to the language competence of learners. According to the innateness hypothesis, the learners experience the language data and through the language faculty, they comprehend the material and after the prior process the grammar of language is contributed (O'Grady, 2008). And one question raised that stimulates researchers that whether the grammar of language of children and adults is similar.

Scholars have studied for years the innateness hypothesis to shed a light on this issue. From the perspective of this hypothesis, the process of grammar of language contribution has to go through the certain stages, which were mentioned earlier. On the surface, the process of learning language of each certain person appears to be similar. In comparison between the stages of language absorb of both adults and children, the same stages with experience of language and brain organism with same function lead to the idea that the grammar of language of both children and matured individuals are the same. Nevertheless, like the possible mistakes resources of learners mentioned above, the grammar of language of children and adults depend upon the experience of learners toward language and the language faculty of learners. The input data plays a crucial role in process of absorbing language as well as the next stage of experiencing the language, the process requires the language faculty to comprehend the input. In fact, the two stages of the whole process are different for adults and children. Therefore, the children grammar and adult grammar are different. The reason for this phenomenon is the competence of language is dependent upon the process of making up the competence which containing the learners' experience of language and language faculty. For the first stage, the experience of language of learners. In comparison between children and adults, the exposure of the learners, from the view point of innateness hypothesis, the data the learners receive are different due to the environment they are in. In fact, the innateness hypothesis emphasized the critical period of learning language, that the children under 4 take advance in absorbing new language more than adults in terms of speed. However, the input data of language for children and adults are different. The learners at age of adults, are believed to have more complicated data due to the more complex situation they face daily compared to the input of the learners at initial years of life. This circumstance result in the differences between the grammar of adults and grammar of children even they seem appear to be similar.

Besides, the second stage of the process of absorbing language takes place in a device so-called language faculty. Like the prior mentioned situation, this device is "programed" at birth

according to the innateness hypothesis (Block, 2014); yet Sakai (2005) reported that the brain through the years develops. Sakai also proved that the language competence of person is developed due to the development of the brain, which means the developed brain consists of particular parts with appropriate functions. With the increasing of size and the number of the neural cells, the brain of an adults is believed to be more complete and complicated in compared in the brain of a child in initial years of life. The language faculty with the function of comprehending the language with the system of lexicon, phonology, lexico-semantics and sentence comprehension. With the particular function for each system, the portion of the language faculty adjusts the language competence of learners. This accounts for the critical period of learners that the child at the age of one year can compose one word and at the age of three a baby can compose three words. The situation is that the adults can also compose one, two or three words, which means short utterances in some cases. Nevertheless, the adults have completely to control and adjust the sentence they compose at certain proficiency whilst the children do not have the competence enough to handle the longer sentences. In another hand, the language productivity of adults is clearly dominant the children language productivity. The big picture is that the same language faculty, yet the development of the brain is different and the experience of language is different. Therefore, the grammar of language of children and adults are different even though the condition contribute the grammar appear to be similar.

Shortly, the input data and the language faculty, under the view of the innateness hypothesis, show that the grammar of language of children and adults are different. And the big picture of the differences of grammar language between children and adults is that the more matured people get, the more proficiency of grammar of language is, which means at certain age, the language proficiency is certain. Indeed, the adults in condition of being matured in terms of physic and psychology have the more completed language competence than the children even the process of learning language and the brain with similar function.

#### **IV. Children with first language and other natural languages acquisition**

Besides the above issues, the innateness hypothesis author also proved the similarity between first language and natural languages acquisition of children. Getting back to the process of absorbing languages, the learners experience the input data and then the data is received by the language faculty which is believed to exist in the brain and be programed already for language function, and after being treated and comprehended by the brain portions with particular functions, the data contributes the learners' grammar of language. From the perspective of innateness hypothesis, the children learners with the innate brain supported by the language faculty that is programed at birth in order to absorb the language contact with the input data from outer learners, hence, the process of absorbing natural languages and the process of first language absorb is relatively similar. Actually, the language experience of children learners take place with materials of "semantics, prosody, phonology, pragmatics, communicative skills, and concepts" (Valian, 2014). Generally, the mother tongue input as well as other natural language input consist of the similar elements like Valian (2014) mentioned before. Therefore, in comparison to the process of acquiring other natural languages, children actually, absorb the mother tongue in the same way unconsciously. All things considered, from the innateness hypothesis, Chomsky assumed that there is the similarity of acquiring the first language and other natural languages in children learners.

#### **V. Limitations**

Although the innateness hypothesis has been accepted for long, this hypothesis has also been attacked due to the limitations. These limitations have been argued by some researchers for years and in some fields.

First and foremost, there are also some other factors that influent the mistakes of learners which the innateness hypothesis does not mention; in the other hand, that is the limitation of this hypothesis. In fact, researchers of second language acquisition (SLA) have shared the similar idea that the first language (L1) affects the second language (L2) acquisition whilst, conversely, Chomsky

did not mention the impact of the L1 on the SLA. Actually, VanPattern and Williams (2014) argued that each learner who had already known his or her mother tongue would overcome the process of the second language absorbing in which the learner has to imitate the language materials and practice them until the process of these becomes “automatic and error-free”. The point is that the process of acquiring the second language means acquires a new set of input data and behavior, which is properly obstructed by the first language. Therefore, the causes of learners’ mistake can also be from the first language impact on the SLA, which Chomsky never minds.

In addition, as mentioned above, the innateness hypothesis did not conclude the influence of the first language to the second language acquisition whilst this point has been stated and accepted in large scale by other researchers. Chomsky just considered the innate mechanism of the brain without putting the context of mother tongue acquisition into the theory. Moreover, Chomsky proposed that the three stages of learning languages with the alternatively fixed order of language experience for receiving the input data, then the language faculty comprehends and treats the information and contributes the grammar or the language competence of human. Nevertheless, the data input, in fact, also contains the corrective feedback from outer the learners, which means the model of fixed order is not linear. As the corrective feedback utterances coming from the outer learners after being received, these information is comprehended and constitute the new pattern of learners’ competence, hence the learners have to adjust the learning experience. This creates the model of circular of three elements. As can be seen above, the criticism in the model of innateness hypothesis has been advocated.

All things considered, although the innateness hypothesis has been accepted widely by numerous researchers, this hypothesis still leads researchers to debate due to limitation.

## VI. Conclusion

After all is said and done, the critique and criticism of innateness hypothesis have been raised and opposed in diverse ways. Shortly, the innateness hypothesis has been provided spot light in some points. Firstly, the possible resources of learners’ mistakes according to the innateness hypothesis have been reviewed together with limitation of this hypothesis in this issue. Secondly, the differences of the grammar of language between adults and children as well as their causes under the view of innateness hypothesis are also proved even though the characters of both adults and children grammar seem to be similar. Another issue mentioned is the similarity of the first language and second language or any natural language. Last but not least, another criticism about the innateness hypothesis in terms of L1 influence on L2 acquisition and the limitation of the model from this hypothesis of process of learning language are presented as well. However, the innateness hypothesis has been even studied for long, the debate of limitation and potential points provide the situation of needing further research. As this theory has been applied in wide scale of pedagogy due to the advantages with the evidence that second languages have been being instructed in kindergartens for several years or other research of linguistics with both adults and children. Nonetheless, some limitations argued by authors sends to the situation of requiring new perspective for appropriate application. There would be some test models which will be conducted in order to confirm the fact that whether the hypothesis is firm stand in contemporary era full of changing and challenges or the potential benefits that have never been revealed.

## VII. References

1. Block, N. (2014). Introduction: What Is Innateness? In *The Language and Thought Series: Vol. II* (pp. 279–282). Harvard University Press. <https://doi.org/10.4159/harvard.9780674594722.c21>.
2. Clahsen, H., & Muysken, P. (1986). The availability of universal grammar to adult and child learners - a study of the acquisition of German word order. *Second Language Research*, 2(2), 93–119. <https://doi.org/10.1177/026765838600200201>.
3. Gopnik, A. (2003). The theory theory as an alternative to the innateness hypothesis. *University of California*, 6(11), 1–30.
4. Johnson, K. (1988). Mistake correction. *ELT Journal*, 42(April), 89–96.

5. Kramsch, C. (2014). Language and Culture. *AILA Review*, 27, 30–55. <https://doi.org/10.1075/aila.27.02kra>.
6. Marginson, S., & Dang, T. K. A. (2017). Vygotsky's sociocultural theory in the context of globalization. *Asia Pacific Journal of Education*, 37(1), 116–129. <https://doi.org/10.1080/02188791.2016.1216827>.
7. O'Grady, W. (2008). Innateness, universal grammar, and emergentism. *ScienceDirect*, 118(4), 620–631. <https://doi.org/10.1016/j.lingua.2007.03.005>.
8. Oyama, S. (1990). Commentary. The idea of innateness: Effects on language and communication research. *Developmental Psychobiology*, 23(7), 741–747. <https://doi.org/10.1002/dev.420230713>.
9. Parisse, C. (2005). New perspectives on language development and the innateness of grammatical knowledge. *Language Sciences*, 27(4), 383–401. <https://doi.org/10.1016/j.langsci.2004.09.015>.
10. Putnam, H. (2013). THE "INNATENESS HYPOTHESIS" AND EXPLANATORY MODELS IN LINGUISTICS. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
11. Sakai, K. L. (2005). Language Acquisition and Brain Development. *Science*, 310(5749), 815–820. <https://doi.org/10.1126/science.1113530>.
12. Valian, V. (2014). Arguing about innateness. *Journal of Child Language*, 41(SUPPL.1), 78–92. <https://doi.org/10.1017/S0305000914000336>.
13. VanPattern, B., & Williams, J. (2014). Theories in Second Language Acquisition: An Introduction. In *Taylor and Francis*. <https://doi.org/10.4324/9780203628942-9>.
14. Wasow, T. (1973). THE INNATENESS HYPOTHESIS AND GRAMMATICAL RELATIONS. *Synthese*, 26(i), 38–56.