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### The Psycho-linguistic Interpretation of the relationship between Language and Reality after Noam Chomsky

In the previous sequels, we have examined the relationship between language and reality from two different perspectives, namely, from the atomic perspective and from the pragmatic perspective. From atomic perspective we have chosen the view of early Wittgenstein as a model of semantic and from pragmatic perspective, we have examined the view of Strawson as a model of pragmatic interpretation of the relationship between language and reality. We think that these two approaches actually give us the sense of reality from external point of view. The similarity between these two approaches is that language and reality are separate entities and language is used as a tool for knowing reality. Having said this, they differ on the nature of language and also about the nature of reality.

Interestingly, linguistic revolution is predominantly associated with semantics as well as pragmatics. But we witness a different interpretation of the relationship between language and reality in Noam Chomsky. In fact, Noam Chomsky gives us a *mentalist interpretation* of the relationship between language and reality. Even many commentators have thought that if the first linguistic revolution was centered on semantists as well as pragmatists, then Noam Chomsky's philosophical contribution is said to be the second linguistic revolution in philosophy. The question then naturally arises, why does Chomsky's contribution to linguistic philosophy has been attributed as the second linguistic revolution in philosophy? This has been justified by saying that unlike the first linguistic revolution; Noam Chomsky brings a different interpretation of the meaning of language. In fact, Noam Chomsky differs

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from the earlier traditions, namely, semantics and pragmatics on an important account. He criticizes both semantic and pragmatic interpretations of language. Semantics and pragmatics have over emphasized on the external uses of language. But Chomsky thinks the other way round. According to Noam Chomsky, the primary use of language is internal. External use is the secondary use of language. Thus, Noam Chomsky not only criticizes the standpoint of both semantics as well as pragmatics regarding the interpretation of language; he at the same time introduces a new interpretation of language which is philosophically known as the mentalist interpretation of language and thereby tries to show the relationship between language and reality from internal or mentalist perspective. That is why, Noam Chomsky's linguistic philosophy has been attributed as the *Second Linguistic Turn* in philosophy.

While developing the mentalist interpretation on linguistic turn Chomsky brings back the 18<sup>th</sup> century concept of innate idea. In this regard, Noam Chomsky was indebted to Descartes. While finding out the answer to the question: Why we study language, Chomsky says, "One reason for studying language – and for me personally, the most compelling reason - is that it is tempting to regard language, in the transitional phrase, as the mirror of mind."<sup>39</sup> Chomsky in his book *Language and Mind* says that language is the mirror of human mind. A man is known by the language he or she uses. Understanding of language in proper is equal to understanding other mind. According to Chomsky, every normal human being at the time of his or her birth biologically acquired an innate organ placed in the left hemisphere from where language has been spontaneously generated. In this regard, Chomsky calls back the relevance of Rene Descartes' concept of innate idea. However, Chomsky gives a different interpretation of innate idea. Descartes interpreted the relevance of innate idea from epistemological angle; whereas Noam Chomsky interprets innate idea in linguistic. That is

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<sup>39</sup> Chomsky, Noam, *Reflection on Language*, Fontana/Collins, 1976, p. 4.

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why; Copper has attributed Descartes' innate idea as *old innatism* and Chomsky's innate idea as *new innatism*.

### **Transformational Generative Grammar:**

Noam Chomsky within the orbit of mentalism brings the concept of Transformational Generative Grammar (henceforth TGG). In this regard, Professor Sen Gupta says, "Chomsky's transformational grammar will surely provide great nourishment to those who would like to see a philosophy of language emerging within the horizon of mentalism."<sup>40</sup> His understanding of TGG is also called scientific grammar. For Chomsky grammar is a theory of *mental state* underlying the production and comprehension of utterances. It is a system of rules that a speaker knows unconsciously, that he has internalized, and the linguist constructing a grammar of a language is an effort proposing a hypothesis concerning this internalize system. Thus, for Chomsky grammar or language has no existence independent of the speaker unconscious knowledge or beliefs about it, independent of the speaker's mental representation of it. In this regard, language may be said subjectively constituted entities having no existence apart from its mental representation. According to Chomsky, "The properties of language must be those that are given to it by the innate mental processes of the organization that has invented it and that invents it anew with each succeeding generation."<sup>41</sup> What Chomsky claims here is that the so-called mentally represented grammar invoked to account for creativity in language. This position of Chomsky actually detaches him from the corpus-based methodology and mechanical discovery procedure as witnessing in Bloomfield; an School and behavioural approach as developed by Quine and many others. In fact, Chomsky's linguistic mentalism actually prevents the mechanism of acquisition of language from behavioristic point of view. In this sense, Noam Chomsky's mentalism is a

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<sup>40</sup> Sen Gupta, K., *Mentalistic Turn*, K.P. Bagchi and Company, 1990, p.1.

<sup>41</sup>Chomsky, Noam, *Language and Mind*, Harcourt Brace Jovanovich, New York, 1972, p.95.

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philosophical prescription that stands against behaviourism in general as far as the acquisition of language is concerned.

The other important aspect of Chomsky's linguistic mentalism is that it is *structurally oriented*. It is rooted in the belief or intuition that speakers have about it. The structure, of course, is subjectively objective. It is objective in the sense that it is biological in nature and it is subjective in the sense that every individual has a different approach as far his understanding of language is concerned. That's why, it can be said that language is embodied in the mental reality underlying actual linguistic behaviour.

According to Chomsky, the structure of grammar is a kind of verbal botany directed to a grammatical description of an uttered sentence along with a hierarchical classification of the elements of the sentence into phonological and syntactic categories. In this regard, Katz says, "The taxonomic theorists conceive of linguistic description as the phonological and syntactic level as segmentation and classification beginning from a catalogue of speech sounds, and a proceeding through various stages of re-classification of syntactic constituents."<sup>42</sup> These hierarchical stages of linguistic development first start with a collection of data, a collection of a large number of utterances. These utterances form a *corpus* which again be classified in different elements at different linguistic levels, such as, *phonemes*, *morphemes*, word and word classes. Chomsky classifies the smallest functioning units of sounds, the *phonemes*. Then, he moves on to classify the morphemes. *Morphemes* are the minimally significant bearers of meaning that are built out of the phonemes. According to Chomsky, *morphemes* join together to form word and word classes, subsequently, culminates in sentences. The syntactical components of a sentence go on hierarchically from the sentence down to the

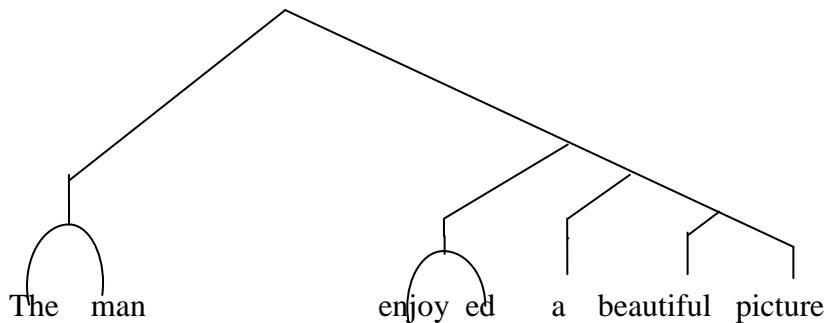
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<sup>42</sup> Katz, J.J., *Linguistic Philosophy: The Underlying Reality of Language*, George Allen and unwin, London, 1972, p.37.

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*morphemes*. Let us consider the following structure of the sentence: The man enjoyed a beautiful picture.

Diagram



The diagram of the sentence as shown above is analyzed into the individual *morphemes*, namely, the, man, enjoy, ed, a, beautiful, picture. Such sentential diagram which represents the complete sense of the sentence is called *phrase marker* by Chomsky. It reveals from the above that a grammatical description of a sentence is dependent on a hierarchical classification of linguistic elements. However, Chomsky does not rule out the limitation of structural linguistics. In fact, he is against any grammar which indulges in the study of a corpus because the study of corpus can hardly describe a language that consists of an infinite number of sentences. According to Chomsky, in most general cases a corpus is nothing but an arbitrarily and accidentally selected set of utterances of languages which may leave out many interesting features of the language. Thus, Chomsky concludes by saying that a description of a corpus is hardly a description of a complete language. Once the conception of the corpus is rejected, the mechanical method of discovering the *phonemes*, *morphemes* etc. of a language equally loses its significance. As Phrase Structure Grammar is generated out of the constituent of phrase marker through different corpus, Phrase Structure Grammar will equally be extremely complex, adhoc and unrevealing.<sup>43</sup> According to Chomsky, phrase

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<sup>43</sup>See Lyons, J., *Chomsky*, Fontana, 1970, p. 62.

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structure grammar enables to generate a large number of sentences, but it will require more rules for generating grammatical sentences in proper. Chomsky finds a few shortcomings in Phrase Structure Grammar.

First, it is unnecessarily and absurdly complex.

Second, its verbs must be intransitive one.

Third, the noun phrase in the passive sentence must be one that can appear as the object of a transitive verb.

Due to these inadequacies Chomsky alternatively calls for Transformational Rules in order to have the *deep structure of sentence*. Thus, there are two structures of sentences, namely, the Surface Structure or the Phrase Structure and the Deep Structure. The deep structure of sentence actually exemplifies the true form of language what Chomsky termed as internal aspect or mentalist aspect of language. In his recent publication Chomsky introduces deep structure of language as I-language and surface structure of language as E-language where the term 'I' stands for internal and the term 'E' stands for external. Thus, I-language is called internal and E-language is called external language. When Chomsky engages himself in giving the mentalist interpretation of language he actually gives over emphasis on I-language instead of E-language because Chomsky claims that I-language is the actual form of language through which the innate acumen of the human mind is being reflected. In fact, linguistics should determine the universal and essential properties of human language by means of I-language.

### **The Creativity, Competence and Performance:**

According to Chomsky, language is the innate reflection of human mind and acquisition of language is made possible because of the inner internal grammatical structure. The grammatical structure of Noam Chomsky is biological in nature. As it is biological, it is

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creative. If we carefully look at the literature of linguistic philosophy, we notice that there are other philosophers, namely, Heidegger and Bhartṛ hari who have recognized the creative aspect of language. According to Heidegger, language is creative (we shall discuss this issue later on). By language Heidegger means poetic language. Likewise if we carefully read *Vākyapadīya* of Bhartṛhari we also sense that the concept of creativity is very much present in Bhartṛhari's interpretation of language (*Śabda*). Moreover, the language of Bhartṛ hari is inner, indivisible which is somehow or other is similar to Noam Chomsky. However, this does not make sense to say that the language of Noam Chomsky is at par with the language of Bhartṛhari and the language of Noam Chomsky is at par with the language of Heidegger. Even though, Noam Chomsky claims that language is the mirror of human mind and language is creative but Chomsky does not mention poetic language at all as Heidegger did. In the same way we can say that Chomsky's own interpretation of language is by no means similar to Bhartṛ hari's concept of *Śabdabrahman*. What we can say here is that the creative aspect of language, of course, in different ways, has been accepted by Noam Chomsky and the same has been witnessed even in the philosophy of Heidegger<sup>44</sup> as well as in the philosophy of Bhartṛhari<sup>45</sup>.

According to Noam Chomsky, language is a verbal botany. He tries to understand TGG within the horizon of mentalism. His own interpretation of grammar is scientific, possessing two important characteristics, such as, *transformational* and *generative*. It is called transformational because with the help of this grammar the native user of language can be able to transform one sentence in terms of another. It is generative because transformation of one sentence into another is a process of generation and a native speaker can generate

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<sup>44</sup>Heidegger,M., *Being and Time*, translated by J. Macquarrie & E. Robinson, New York: Harper & Row, 1962.

<sup>45</sup>Bhartṛhari, *Vākyapadīya*, Parts I-III, ed. Sarma, R. Varanasi: Sarasvati Bhavana Granthamala, 1963.

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innumerable sentences spontaneously with which he is not previously acquainted. Thus, the process of transformation and generation is a recursive process through which one can acquire language within a very short span of time. A native speaker, opines Chomsky, can generate innumerable sentences and at the same time can transform one sentence into another without knowing any grammatical rules found in natural language. If there be any grammatical rules, it lies in the deep structure of human mind from which language has been spontaneously generated. That's why transformational generative grammar is intimately related to what Chomsky calls *the creative aspect of language*.

According to Chomsky, the creative aspect of language is the ability of the native speaker to understand and produce sentences not encountered before. Therefore, one of the essential aspect of grammar, i.e., I-language, opines Chomsky, is its creativity. That is why, Chomsky in his book *Aspects of the Theory of Syntax* has claimed that the very essence of language may be called *the creativity of language*<sup>46</sup>. According to Chomsky, creativity is not something that can be acquired; rather creativity is something that has been *innately possessed* by every native speaker. In this sense, creativity is a kind of dignified ability of the speakers to produce new sentences.

Thus it appears after Chomsky that creativity is triggered by competence. Competence is nothing but the speaker-hearer's knowledge of his language. Competence again is linked with *performance*, i.e., the actual use of language in concrete situations. Precisely, it can be said after Chomsky that linguistic competence can be equated with the speaker-hearer's knowledge of language, his mastery or internal representation of a system of rules. Chomsky elsewhere has claimed that the creativity of language is guaranteed by competence and performance of the language user. Competence is manifested by TGG. It is the speaker-

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<sup>46</sup> See Chomsky, N., *Aspects of the Theory of Syntax*, Mass, MIT press, Cambridge, 1965, p.4.

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hearer's knowledge of his language. Contrary to this, performance is the actual use of language in concrete situation. As competence is at par with the speaker-hearer's knowledge of language, it is supposed to be the internal representation of a system of rules of the user.

If someone doubts whether there can be pure knowledge of a language without having any non-linguistic dimension that will by no means unsettle Chomsky's position. Surely, one cannot hope to know the laws of physics unless one breaths. However, from this it does not follow that the laws of physics can be distinguished from the laws of biology. Likewise, there may be non-linguistic pre-condition for having the knowledge of a language, but from this it does not follow that knowledge of language cannot be purged of non-linguistic condition. According to Chomsky, even one can judge whether a particular sentence is appropriate to the context or acceptable among a certain community. However, this does not make sense to say that one has knowledge of language. These are governed by socio-cultural rules and principles and also at the same time connected with one's non-linguistic behaviour. All these belong to what Chomsky would call the level of *performance*.

According to Chomsky, knowledge of language is the knowledge of rules and principles governing sentence. It is the knowledge that enables the speaker-hearer to produce and identify grammatical sentences. It is the knowledge of grammar where people can assess whether a sentence is grammatical or not. It is the knowledge of grammar where people can assess whether it is in keeping with the rules of sentence construction and interpretation as specified by transformational grammar. These constitute his competence. Thus, by the term competence, Chomsky means *knowledge of language*. Knowledge of language helps one to assess whether a sentence is acceptable or not, but that is connected with the actual occasion of utterance. All such things come into the realm of *performance*. Thus, following Chomsky, we can say that a sentence is an abstract object following the rules and principles as presented

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by transformational grammar that can be unified to any context and occasion. Thus, a sentence is produced and understood by a native speaker independently of its role in communication. However, an alternative of the sentence actually demands a particular context always associated with a particular *communicative situation*.

Thus, we can say after Chomsky that transformational grammar is an account of competence which is different from many things that people can know about their language. In fact, Chomskian understanding of TGG actually overlooks the pragmatic distinction of speech and thereby ignores that people have knowledge of socio-cultural norms. Should we then restrict ourselves within the notion of competence to only what is specified by transformational grammar? Here Chomsky's preference to this question would receive adequate confirmation from another realm, that of arithmetic knowledge. However, arithmetic knowledge is a matter of performance and it does not in any way characterize what we shall call competence. Very similar way, following Chomsky, we may eliminate all socio-cultural reference from our knowledge of language and formulate it in terms of rules and principles which are mutually represented and which in turn contribute to the well foundedness of sentences and structural descriptions assign to them.<sup>47</sup>

Thus, Chomsky has emphasized on competence because his account on competence brings out that language is fundamentally a structure rooted in inner represented rules. Thus, by narrowing concern to independently and readily structural data, Chomskian grammar, in fact, enjoys the prestige of an advance science. Just by focusing on what is internal to language, Chomsky enables to find something that is of the deepest or intrinsic human significance. In the words of Hymes, here Chomsky is able to retain "the prestige of dealing with something fundamental to human life."<sup>48</sup> Here Chomsky desires to undertake a descriptive study of

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<sup>47</sup> See Chomsky, N., *Language and Mind*, op.cit., p. 30.

<sup>48</sup> Das, Kantilal, *Philosophical Relevance of Language: A Methodological Reflection*, op.cit., p. 207.

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language by eliminating all performance factors at the behavioural level that contribute to ungrammaticality and by formulating a system of rules that projectss all and only grammatical sentences what Chomsky claims is a part of the internal equipment of the speaker-hearer. Thus, Chomsky while developing his internalization of language takes a calculative mode different from socio-cultural element what Hymes points out, “a Golden of Eden view”<sup>49</sup> Where human life seems divided between grammatical competence and performance and thereby thrusting the speaker-hearer out into a fallen world. Thus, it seems clear to us that competence or knowledge of rules alone come to grips with the creative aspect of language. It is ability, Chomsky opines, to form and understand previously unheard sentences. It is the creativity of human language that he constantly invokes in his unwavering campaign against behaviourism as has been developed by Quine and many others.

The question then arises: How does Chomsky interweaves the relationship between competence and creativity? Even though Chomsky explicates the concept of competence and the concept of creativity in terms of the concept of performance, but it is not sufficiently clear in what sense competence is linked with creativity? Of course, we come to know from Chomsky that a speaker can understand new sentences only because he has internalized the abstract generative grammar of his language on the basis of similarity. But this similarity is due to the possession of the same abstract feature of mentally represented grammar which is abstract and unobservable in nature. In this regard, Chomsky claims that it is the knowledge of deep structure on the basis of which the co-relation between competence and creativity is made possible. In this regard, Chomsky says, “The most striking aspect of linguistic competence is what we may call the ‘creativity of language’, that is, the speaker’s ability to

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<sup>49</sup> Hymes,D.H., “On Communicative Competence”, *Sociolinguistics*, J.B. Pride and Jenet Homes (eds.), Penguin, 1979, p. 272.

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produce new sentences, sentences that are immediately understood by other speakers although they bear no physical resemblance to sentences which are ‘familiar.’<sup>50</sup>

Chomsky also tries to explain the co-relation between competence and creativity in terms of generative grammar. By ‘generative grammar’, Chomsky actually means a kind of grammar which is the description of the tacit competence of the speaker-hearer that underlies his actual performance in production and perception of speech. Thus, for Chomsky, a generative grammar ideally specifies a pairing of *phonetic* and semantic representations over an infinite range. Thus, a generative grammar, Chomsky opines, constitutes a hypothesis as to how the speaker-hearer interprets utterances, abstracting a way from many factors that interweave with tacit competence to determine actual performance. Thus, for Chomsky competence has a direct reflection on performance. In this sense competence is an idealized model of linguistic performance. According to Chomsky, competence is an *ability* arising out of creativity. It is an ability i.e., directly reflected in performance under a certain idealization. Thus, competence, for Chomsky is a model of what a native speaker can produce and comprehend under ideal conditions. Thus, the relation between competence and linguistic performance is very intimate. Competence directly refers to performance or alternatively, it can be said that linguistic competence is idealized production. Linguistic performance includes not only the ability to produce grammatically well-formed sentences, but also the ability to use language correctly in a variety of socially determined situations. According to Chomsky, linguistic performance is not only the ability to produce new grammatical sentences; it is also the ability on the part of the speaker to produce them on the appropriate occasion.

Thus, it seems clear to us that Chomsky has attempted to justify his mentalist or internalized slogan: Language is the mirror of human mind by bringing the concept of TGG along with

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<sup>50</sup> Chomsky, N., *Topics in the Theory of Generative Grammar*, Mouton, 1966, p. 4.

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the three key concepts, such as, creativity, competence and performance. He understands grammar as transformational and generative. Generation and transformation of grammar is made possible by virtue of creative ability of the native speaker. Creativity leads to competence with the help of performance. That means, the performance of the native speaker actually reflects whether the native speaker can acquire mastery over his or her language. Thus, creativity, competence and performance jointly manifest the internalization of language of grammar what Chomsky termed as TGG.

It should be kept in mind, after Chomsky, that any reasonable model of language will incorporate the generative grammar that express the speaker-hearer's knowledge of the language. But, from this it does not follow that the generative grammar in itself prescribed the character or a model of speech production. In fact, in order to make actual linguistic performance we have to rely on more than one internal primary factor, out of which linguistic competence is the most important one. Competence, as we have already asserted, after Chomsky, is the ability to speak and understand the language with which we are yet to introduce. Competence, thus, is supposed to be the mastery of the generative grammar of the language speaker. But, competence again is not sufficient to gain the mastery over language. There are other factors that need to be taken care of. In this regard, every speaker of a language has mastered and internalized a generative grammar that expresses his knowledge of the language. In this process, he is aware of the rules of the grammar. Any interesting generative grammar will be dealing with mental processes that are far beyond the level of actual or even potential consciousness. Accordingly, it can be said, after Chomsky, that competence is not what we look it to be in the beginning. It is not an ability that is manifested in performance, nor even a *model* of performance, but rather a component in the model of performance. As competence is no longer identical with its manifestation in performance, the

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notion of *ability* is discarded in favour of competence or tacit knowledge of the rules of language.<sup>51</sup>

The point that needs to be taken care of at this juncture: Does it lead us to say after Chomsky that competence and performance are different entities? Is it necessary to observe the difference in logical character between performance and competence? If performance and competence are logically different, then how can they fit together within one theory? Is it then not a better alternative to think that competence is an independent abstract entity from linguistic performance?

In responding to these quips, Chomsky seems to move in that direction when he gives the following neutral definition of competence. In this regard, Chomsky says that transformational grammar is not a model for a speaker or a hearer, and with this he comes upon another shift in the notion of competence. Therefore, the notion of competence finds different variation in Chomsky's mentalist interpretation. He at times says that performance is a reflection of competence or competence is an ability manifested in performance. Therefore, the relation between competence and performance is, therefore, very intimate. Secondly, he also claims that competence is not an ability manifested in performance, but tacit knowledge of the rules of language that can effectively lead to performance. This makes the relation between the two not so close as it was before. Thirdly and finally, Chomsky opines that the distance between the two becomes complete. Competence is only unconscious knowledge of rules remote from the activities of actual speakers. It represents only a non-empirical axiomatization of sentences and their structural descriptions. Transformational Generative Grammar is reduced only to a mere formal and frozen abstraction.

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<sup>51</sup> Searle, J.R. *Speech Acts*, Cambridge University Press, 1969.

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Along with competence, creativity also, Chomsky opines, undergoes various transformations we were already wondering how generative grammar that represents competence can explain creativity of language. While explicating the goals of linguistic theory Chomsky in his “Current Issues in Linguistic Theory”, goes on to say that normal mastery of a language involves the ability to understand immediately an infinite number of entirely new sentences. It is thus clear that a theory of language that neglects this ‘creative’ aspect of language is of only marginal interest. These remarks of Chomsky reveal adequately in what sense creativity is a matter of linguistic competence. The creative aspect of language use has been described by Chomsky as the ability to form and understand previously unheard sentences. So, creative aspect of language and creative aspect of language use have been used interchangeably to mean the same ability of producing and comprehending novel sentences. Transformational Generative Grammar represents competence that encompasses this ability, i.e., the creative aspect of language. Even Chomsky elsewhere claims that a person’s linguistic knowledge (competence), unlike that of the linguist, is not a case of *knowing that*; rather it is a kind of *knowing how*, i.e., an ability to be acquired of.

Language, for Chomsky, is in essence, *a structure*, mentally represented in the human brain and not a matter of use including sociological context, intensions of speakers, and so on. Chomsky says that if one wants to find out something significant about the nature of language, it is important to look not at its uses, but rather at its structure. They reveal that the human mind is such as to be able to form representation of objects other than those merely represented by senses. The computational complexity of language provides the basis for the minimal computational ability of the human mind. It is in this way that language is encored in mentalism and one has to understand his mentalist turn voiced in the slogan: “Language is the mirror of human mind.”