Syntactic Theory Perception on Language Acquisition

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Abstract

This paper focuses on identifying the syntactic theory perception on acquiring first language. The paper highlights the role and function of language syntactic structure in childhood on acquiring first language from birth and using it in communicative situations in reality later. The paper, however, emphasizes the impact of grammatical development, focusing mainly on nativist and usage-based, on acquiring first language. The paper bases its hypotheses and assumptions on Chomsky’s universal grammar and transformation grammar theories. The study, moreover, exposes language as a symbolic system and how it is formed in mind from birth, focusing mainly on the difference between human language and animal sounds. A brief idea about linguistic and communicative competence is presented to associate them to first language acquisition. The study concludes that grammar, which is part of the syntactic theory, is concerned with discovering the principles and sets of rules used for governing the structures of utterances and sentences. These principles and sets of rules constitute what is called linguistic competence of language. This linguistic competence is what helps children acquire their first language.

KEY WORDS

syntactic theory

Introduction

Studies and research emphasize the effect of grammatical development represented in two theoretical approaches: nativist and usage-based on first language acquisition. The nativist approach is mainly based on Chomsky’s generative grammar principles, and usage-based approach is based on construction grammar principles. These two approaches, however, have different perceptions regarding the nature and components of the grammatical rules that constitute language grammatical system. In this paper, we will focus mainly on Chomsky’s generative grammar principles through studying the effect of syntactic theory on first language acquisition.

Chomsky (1965) believes that grammar includes constant concepts and rules predetermined in brain from birth by innate language faculty. Chomsky bases his idea of innate language faculty on the assumption that language faculty consists of three separate components: phonology (sound system), syntax (sentence structure), and semantics (language meaning). These three components are independent, which indicates that syntactic representations of language can be analyzed separately with no reference to...
meaning or sound. In other words, syntactic representations are derived from a universal set of syntactic structures formed in brain, which Chomsky calls universal grammar.

Chomsky emphasizes the role of universal grammar in language acquisitions, basing his generative grammar theory on the assumption that grammatical configurations work independently and, hence, can be defined away of any particular syntactic configuration. Accordingly, syntactic representations are derived innately in brain and contain all grammatical rules of language. Based to this assumption, children are born with a universal set of formal categories, called universal grammar that helps them acquire their first language innately.

Language as a Symbolic System

Chomsky and some other linguists believe that language is a system of symbols arranged and ordered in various syntactic structures, constructed arbitrarily from vocal symbols. People later use language communicatively with others who live and share the same cultural values and symbolic representations. It is crucial, then, that the users of language know about the syntactic structures of words and sentences in addition to the cultural values of that syntactic system to use language in various social contexts. Language as a system of symbols includes sounds (phonology) and syntactic structures (grammar) for communication with people, who use the same vocal symbols in forms of speech and syntactic structures in forms of sentences. The syntactic rules of language, as Chomsky (2006) believes that, “generate an infinite set of surface structures, each of which is a labeled bracketing of a string of minimal elements” (p. 34).

The American linguist Langacker agreed with Chomsky in his view regarding viewing language as a system of symbols, presenting his cognitive grammar approach in the late 1970s. Langacker (1987) defines cognitive grammar approach as “a growing intellectual trend in the analysis of language and mind, away from a mechanistic conception and towards a conception more appropriate for biological systems” (p. 5). According to Langacker, the main language units consists of symbols or conventional combinations of phonological labels and syntactic structures. Accordingly, grammar includes restrictions on how language users combine syntactic structures with phonological labels in order to generate language in various functional situations.

Cognitive grammar approach, based to Langacker (2008), is based on the belief that language is acquired when phonological labels and syntactic structure are acquired side by side. Language, then, is language when it contains a merger of phonological labels and syntactic structures and become meaningful to its users in various social contexts. Also, language is language when language users use and consider linguistic utterances as symbols for objects in reality. Hence, syntactic structures and phonological labels should be associated to language acquisition principles.
According to Langacker (2008), cognitive grammar approach “offers a comprehensive yet coherent view of language structure, with the further advantages of being intuitively natural, psychologically plausible, and empirically viable” (p. 3). This indicates that language users acquire language through unconscious use of syntactic structures in forms of linguistic utterances. It is worth noticing that language users select the linguistic forms that give meaning to them and convey meaning to others, who use the same language. In this regard, Chomsky (2006) states that since these facts are known essentially without evidence, it must be that the child approaches language with an intuitive understanding of the concepts involving intending, causation, goal of action, event, and so on; furthermore, it must be that the child places the words that are heard in a nexus that is permitted by the principles of universal grammar, which provide the framework for thought and language, and are common to human languages as systems that enter into various aspects of human life. (p. 62)

Lutz, also, believes that language is a system of symbols; it is not a system of signs. Similar to Langacker and Chomsky, Lutz (1996) emphasizes that there is no relationship between the symbol and the reality, for which it stands. For example, the heart is always seen as a symbol of love, but it is not love itself. A graduation certificate is seen as a symbol of education, but it is not education itself. A symbol can never extract meaning for the reality for which it stands. What gives meaning to that reality is the people who use that symbol in a particular situation. For example, people name the dog “dog,” not because naming the animal “dog” refers biologically or morally to the object. People name that animal “dog,” not because it barks or for being used for guarding. People agree on naming that animal “dog,” regardless any other relative features. There is no relationship between the symbol (the word dog) and the sign (the features of the animal named “dog”).

The above example indicates that there is no natural or intrinsic relationship between the symbol and the reality it signifies. The relationship between the symbol and the meaning it presents is arbitrary. Wolfram and Estes (2006) emphasize that “the relationship between the sounds that make up a given word and the meaning or meanings associated with this word is essentially arbitrary. That is, there is no one “true” name for a given object or idea” (p. 60). Accordingly, it is not the symbol or the reality that determines the meaning; rather, it is the people, who use the symbol or the reality, determine the meaning. For example, people agree that a red traffic light refers to stop though there is no natural relationship between the red color and the word “stop.” In contrast, the relationship between the sign and the thing it signifies is natural and intrinsic. For example, smoke is a sign of fire, and thunder is a sign of rain. A physician sees that a
fever is a sign of sickness. The policeman considers fingerprints on a gun as a sign against the person, who used the gun (Lutz, 1996).

Potter (1974) adds that meaning of language is determined by the use of syntactic structures in the form of symbols people use to describe objects in the reality. Though Dewey (1997) said, “When a meaning is detached and fixed by a sign, it is possible to use that meaning in a new context and situation” (p. 174), in most cases it seems impossible for the symbol to give the same meaning in a new context and situation. The reason is that words and phrases cannot bring the same pictures to people’s minds. For example, the proverb “You are my lucky dog!” has a positive connotative meaning in the English culture as dogs are seen as pets and refer to faithfulness. The same proverb has a negative connotative meaning in the Arabic culture as dogs are seen as dirty animals and refer to dirt. So, the same proverb has different meanings in different cultures. In this vein, Wolfram and Estes (2006) confirm that “a given word may have not only a central, core meaning but also a host of peripheral meanings and associations that make it difficult to pin down the meaning of the word with precision” (p. 60).

Seeing language as a symbolic system, Potter (1974) believes that what distinguishes human beings from animals is that animals use the language of signs, and human beings are the only creatures that are able to use symbols for thinking and communication. It is true that animals use language of signs to express their feelings and wishes. For example, cats arch their backs as a sign of attacking. But human beings use the language of symbols arbitrarily. In fact, animals are not able to think due to the failure to use the symbolic system. It is true, also, that some animals can speak and utter several words, but these animals think of these words as signs, not as symbols. So, this is a good indication about the consideration of language as a system of symbols or a system of signs.

Animals, however, cannot use the syntactic structure of words and sentences; instead, they use phonological labels as basic sounds to express their feelings and wishes. For example, a cow has roughly nine sounds; a chicken has about twenty sounds; and a fox, a dolphin, and a gorilla each has between twenty to thirty sounds. Some animals have nearly the same number of sounds a human being has, which is between thirty and forty sounds, yet they lack the use of syntactic structures (Lightbown and Spada, 2008). Also, “most animals can use each basic sound only once. That is, the number of messages an animal can send is restricted to the number of basic sounds, or occasionally the basic sounds plus a few simple combinations” (Aitchison, 2003, p. 15).

Wade (2000), also, emphasizes the role of syntactic structure in using language in various contextual situations, clarifying that “chimps are highly intelligent animals and can clearly learn the meaning of individual symbols. They can also string several symbols
together, often in highly evocative ways. But the essence of language is syntax, the rules for combining words in a sentence. Most linguists remain to be persuaded that chimpanzees have or can learn true syntax” (p. 52).

Thus, the difference between human beings and animals is that animals use these sounds as signs; that is, animals use each sound only once, which makes the use of these sounds restricted and limited to specific situations. In contrast, human beings use these sounds as symbols in forms of syntactic structures and phonological labels. In fact, human beings use these phonological labels in isolation and combination with syntactic structures, which makes the use of these sounds unrestricted and infinite. This feature makes language both creative and productive, as well as, it helps human beings create and produce unlimited number of sentences through limited number of restricted and finite syntactic structures and phonological labels.

Language, moreover, enables human beings to talk about things in present or absent, while animals can communicate and talk about things in present only. For example, birds can issue a particular sound about danger only when there is danger. Animals have a limited number of signs, so they can communicate only about things that happen immediately. Moreover, human beings do not have a real world in their heads; they have only images about this real world. These images are not the real world, but they are representatives of this real world. Thus, these images are symbols, which strongly facilitate the process of acquiring language (Lightbown and Spada, 2008).

**Syntactic Theory**

The history of syntactic theory dates back to the beginning 1950s with Chomsky’s presenting his ideas about syntactic structures, in which he provided his syntactic maps for acquiring language. Since then, several theories and studies regarding syntax have been presented. Chomsky (2006), originally, relates syntactic theory to word meaning, conditioning that it is essential for language users to be acknowledged with word meaning to use and understand the syntactic structure of linguistic utterances and sentence because “each language can be regarded as a particular relation between sound and meaning” (p. 15). Chomsky presents his universal grammar and transformational grammar, which has mainly three major components: a syntactic component (structure), a phonological component (sounds), and a semantic component (meaning).

In his universal grammar and transformational grammar theories, Chomsky (2006) also presents his syntactic structures: surface structure and deep structure, in which he believes that “the syntactic rules of the language generate an infinite set of surface structures, each of which is a labeled bracketing of a string of minimal elements” (p. 34), adding that “the grammar of English will generate, for each sentence, a deep structure,
and will contain rules showing how this deep structure is related to a surface structure” (p. 93).

Chomsky’s belief adds flexibility to language, as one has more than one option to express his idea or thought. In other words, the syntactic structure of the surface structure is limited as there is only one syntactic structure for the statement sentence in English, for example, which starts with a subject followed with a verb. For example, there is only one syntactic structure for the surface structure of the sentence “The car hit the man.” People understand that “The car” is the doer of the action “hit,” and “the man” is the object of the action “hit.”

In contrast, to the syntactic surface structure, the syntactic deep structure has infinite structures. The syntactic structure of the surface structure “The car hit the man” can be expressed in different syntactic deep structures through the use of transformational grammar. The deep structure of the above sentence might be in the form of passive voice as “The man was hit by a car,” a question as “What hit the man?,” and “What did the car hit?,” and some others. It is worth noticing that these different deep structures have different meanings based on the theme-rhyme organization. Chomsky (2006) believes that deep structures, “passed to the transformational rules in order to be converted into the surface structures. At this point, the surface structure of a sentence was still abstract: it did not yet have a phonetic form” (p. 200).

As for the role of meaning in the syntactic theory, Lakoff and Johnson (2003) believe that meaning is “a matter of imagination and a matter of constructing coherence” (p. 227). This indicates that two different syntactic structures may give nearly the same meaning, and two similar syntactic structures may give different meanings in different languages. The intonation, for example, changes the meaning of the sentence though it still has the same syntactic structure. Thus, the syntactic structure of the sentence “You went to the school yesterday” might be a declarative question if the intonation is raised at the end of the sentence to take the form of the question “You went to the school yesterday?” So, intonation plays an important role to determine the functions of the words in each syntactic structure in linguistic utterances and sentences.

In the field of syntactic theory, Chomsky focuses on the use of linguistic competence away from its social factors, basing on his theories of universal grammar and transformational grammar. Chomsky uses the concepts “surface structure” and “deep structure” to show how language speakers use infinite syntactic deep structures from finite syntactic surface structures. Hymes agrees with Chomsky in that view, but he adds the role of social setting, presenting his concept “communicative competence,” which merges both linguistic competence (use syntactic rules for combining sounds with morphemes in sentences) and sociolinguistic competence (use syntactic rules for using language in social
contexts). Hymes coined the concept “communicative competence” in the beginning 1970s as a response to Chomsky’s concept “competence and performance,” which he presented in the late 1950s.

As linguists associated the principles of syntactic theory with grammar and linguistic competence in different forms, the history of syntactic theory can be summarized in the following models: (1) Linguistic Model presented by Chomsky in late 1950s; (2) Social Model presented by Hymes in beginning 1970s; (3) the Theoretical Framework Model presented by Canale and Swain in 1980s; (4) the Organizational Model presented by Bachman and Palmer in 1990s; and (5) the Actional Model presented by Celce-Murcia and his colleagues in late 1990s. The figure below shows the chronological evolution of communicative competence.

The linguistic model, which is concerned with grammatical competence, is based on Chomsky’s theories about language competence and performance presented in his Universal Grammar Theory and Transformational Generative Grammar Theory in the middle of 1950s. According to Chomsky (1965), mastery of language is based mainly on
mastery of its vocabulary (semantics), morphological and syntactic structure (morphology), and phonetic sounds (phonology) in cognitive processes in people’s mind. Children acquire competence about language as cognitive processes in mind away from its sociocultural features. They acquire language as competence. Later, children use language as performance in multiple sociocultural contexts with others. Chomsky’s analysis about language competence and performance indicates that children inherit grammatical competence from childhood, which allows them to acquire language rapidly and use it socially later.

In a different way, the social model, which is concerned with the sociolinguistic competence, is based on the idea “Language is a social activity.” Accordingly, people acquire and use language in sociocultural and sociolinguistic contexts. Three interrelated concepts describe sociolinguistic competence as: (1) verbal repertoire, which focuses on heterogeneity of speech communities and the importance of social relationships; (2) linguistic routines, which focuses on chronological organizations in sentences that help language users interact through; and (3) domains of language behavior, which focus on situations, in which one variety of language works more effectively than another variety (Hymes, 2001).

In 1980, Canale and Swain presented their theoretical framework model, which is based on grammatical competence, sociolinguistic competence, and strategic competence. The strategic competence is concerned with the verbal or non-verbal strategies, which the language users use to compensate for their failure in using language in real communicative situations. For example, when someone fails to communicate with others, he might use some strategies, such as avoiding using some words, paraphrasing his words, repeating some words or phrases, guessing other forms, using indirect speech, using passive or active structures and the like. In its later version in 1984, Canale and Swain added discourse competence to be the fourth competence in this model. Discourse competence is based on the idea that mastering of cohesive rules, such as parallel structures, transition words, pronouns, repetition, synonyms, subject-verb agreement, and so on help people use language communicatively (Bagaric and Djigunovic, 2007).

Theoretical framework model gained its popularity in the 1980s in the fields of language testing and language acquisition. This model is based on the idea that the language user’s characteristics have a great influence on his ability to acquire and use language communicatively. This model is based mainly on language competence, which consists of two complementary sub-competences that work collaboratively to assist the language user to use language communicatively in functional situations. These complementary sub-competences are organizational competence and pragmatic competence (Bagaric and Djigunovic, 2007).
Organizational competence is concerned with the abilities that work collaboratively to control and guide the way the language user uses language syntactic structures, which include grammatical competence and textual competence. The grammatical competence is concerned with vocabulary, phonology, morphology, graphology, and syntax that work together to help the language user recognize and produce correct grammatical structures in various cultural contexts. In the other side, textual competence is concerned with the conventions used for combining different syntactic linguistic utterances in one meaningful text. For example, the language user may use cohesion and coherent to link related sentences in one paragraph in a text (Bagaric and Djigunovic, 2007).

Pragmatic competence, which is “the ability to communicate effectively and involves knowledge beyond the level of grammar” (Grossi, 2009, p. 53), is concerned with the abilities the language user may use to produce and interpret various syntactic linguistic utterances and sentences in various discourses. Pragmatic competence, however, includes two types of competences: (1) functional competence, which is responsible for producing appropriate language functions the language user may use for interpreting an utterance or a discourse; and (2) sociolinguistic competence, which is responsible for producing and interpreting the syntactic linguistic utterances the language user may use to communicate in a particular situation (Barron, 2003).

In this model, Bachman and Palmer do not use strategic competence in helping language user communicate in language effectively. They conceive strategic competence as a metacognitive factor the language user may use to help him: (1) involve in the goal setting, (2) assess his communicative resources, and (3) plan. Involving in the goal setting requires that the language user identify a number of alternative tasks, through which he selects the one that fulfills its role in language communication. The language user, furthermore, assesses his language use in comparison to the other areas of language communicative abilities, such as affective schemata and topical competence. Planning requires that the language user decide how to benefit from language competence and other competences to use language communicatively (Bagaric and Djigunovic, 2007).

In the middle of 1990s, Celce-Murcia and his colleagues presented their actional model, which is concerned with the language user’s abilities responsible for producing speech acts. In this model, the concept “sociocultural competence,” which is concerned with how language users base on their cultural backgrounds to use language communicatively, replaced for “sociolinguistic competence.” Sociocultural competence indicates the language user’s pragmatic competence, which helps language user use language communicatively in its various cultural and social contexts. Actional competence indicates the competence that helps the language user use language communicatively for exchanging information, expressing feelings and opinions, apologizing, blaming, regretting, complaining, wishing hopes and predictions, and the like (Celce-Murcia, 2007).
Syntactic Theory and Language Acquisition

As we have clarified earlier the idea that language is a symbolic system, other linguists believe that language can be symbolized as a software system that constitutes sounds, morphemes, and syntax. As each software system can attract its users through persuading them that they can use that system, language needs to attract its users through persuading them that they can acquire and use language in particular settings, using various syntactic structures through deep structures. Of course, this software system can never work if others fail to understand its syntactic structures and sound forms. So, if people fail to get meaning from the language used, this language becomes non-language. For example, “like I eat banana” is not language as the meaning is unclear due to the disorder of the words in the syntactic structure of the sentence. Whereas, “I like to eat bananas” is a meaningful sentence and considered a language. The syntactic structure of the words is what gives the words meaning and makes the sounds language.

Davies (2005) believes that language is “a complex system of rules relating to sounds, words, sentences and the ways in which these elements are normally combined” (p. 1). Though language is acquired through community, no one can neglect the fact that language consists of syntactic rules, which Chomsky refers to in his syntactic theory as universal grammar and transformational grammar. Rodrigues and White (1974) agree with Chomsky in that language consists of syntactic rules, adding that for a person to know a language, he has to be acquainted with the semantic system that includes word meanings, and syntactic system that includes the structure of sentences and arrangements of words.

Chomsky focuses on the role of descriptive grammar in constituting syntactic structures of sentences in language. Chomsky (1957) believes that each language includes a syntactic system that differs from other syntactic systems in other languages; thus, language users use different structures for the same sentence in different languages. For example, the syntactic structure of the English sentence varies from the syntactic structure of the Arabic sentence. English statements start with a subject followed with the verb. When the English sentence starts with a verb followed with a subject, the structure of the sentence changes from statement into interrogative. The statement English sentence “He can speak English” becomes an interrogative in “Can he speak English?” In Arabic, this syntactic system is different as the structure of the statement sentence starts with a verb as the unmarked form and subject as the marked form.

Descriptive grammar, based on Chomsky, is concerned with how people use syntactic rules subconsciously in social contexts. While speaking language, people use syntactic rules automatically without being aware of what they are doing or saying. Though the use of these syntactic rules is subconscious and natural, they are obligatory because they govern and direct the ways people use language correctly. In this regard, Rowe and Levine (2006) said, “When we say that syntactic rules are basically subconscious, we mean several things. First, people apply the rules of their language
automatically and without noticing that they are doing anything special. Second, using the syntax of language is usually obligatory” (p. 113).

In his *Syntactic Structures* (1957), Chomsky presented his thoughts regarding the effect of syntactic theory on first language acquisition. Chomsky believes that children are born with the ability to acquire language because of the language acquisition device (LAD) that is genetically inherited to assess children to decode language’s major principles and grammatical structures in their brains. Children, then, become able to acquire language and become fluent speakers of that language when they become five or six years old. They need just to use their LAD to practice the syntactic structures they have already inherited from birth in real communicative situations.

In spite of the fact that Chomsky applies his syntactic theory on first language acquisition, the syntactic theory might be applicable on all other languages children acquire after first language. The innate LAD, in fact, helps children acquire languages and become fluent speakers of other languages. An experiment in Toronto, for example, shows that bilingual children did better than monolingual children in cognitive tests. This reduces the hypothesis of leaving a room for the first language for development (Bialystock, 2012). The innate LAD provides children with syntactic structures to form sentences correctly, and children pick up vocabulary from the environment later. Language acquisition, in this regard, “can be seen as the transition from the state of the mind at birth, the initial cognitive state, to the stable state that corresponds to the native knowledge of a natural language” (Chomsky, 2002, p. 8).

Similarly, Bardies (1999) emphasizes that

Acquiring a language requires associating sounds and meanings according to the phonological and syntactic rules of the language. First, children must select the sounds (phonetics segments or syllables) that constitute the repertoire of the sounds used in their language and acquaint themselves with the combinations of these sounds. They must also assimilate the prosodic cues (accent, rhyme, and intonations) that link linguistic units in organized forms (words, phrases, sentences). (p. 40)

Though Ellis (2003) traces the greatest role in acquiring language to the social community as language acquisition refers to “the subconscious process of ‘picking up’ a language through exposure” (p. 14), Weaver (1996) traces the greatest role to the innate LAD that provides children with syntactic structures to help them form sentences correctly. She emphasizes that “language acquisition is a subconscious process that leads to functional command of the rules of a language, though not necessarily to conscious knowledge about the language or its rules” (p. 49). This, in fact, goes with Chomsky’s (2000) belief regarding language acquisition, which “means selecting, among the options
generated by the mind, those which match experience, and discarding the other options” (p. 16).

The discussion above shows that children acquire language as a component including sounds and meanings according to the phonological and syntactic rules of the language. For children to acquire language, they select the sounds (phonetics segments or syllables) that establish the stock and set of the meaningful sounds used in their language and accustom themselves with the arrangements and harmonies of these sounds in syntactic structures. Therefore, children integrate the sound representations in order to link linguistic units in organized syntactic forms in communicative situations. Accordingly, Andrews (1993) explains that “instead of learning only the basic syntactical patterns of the language, the school student also needs to learn about the social facts that affect his or her language options” (p. 38).

**Conclusion**

The discussion above shows clearly that syntax, in addition to morphology, constitute the science of grammar, which is a branch in linguistics. Syntax is concerned with the processes, principles, grammatical rules that govern the structure of sentences in language. Grammar, based to Weaver (2008) “means a description of the syntactic structures and ‘rules’ of a language, as well as the actual structures and patterns themselves” (p. 251). Grammar is part of the syntactic theory, which is concerned with discovering the principles and sets of rules used for governing the structures of utterances and sentences. These principles and sets of rules constitute what is called linguistic competence of language. This linguistic competence is what helps children acquire their first language.

The discussion above, also, shows that syntactic theory studies the linguistic competence based on Chomsky’s theories of universal grammar and transformational grammar. Syntactic structure is what helps people use linguistic utterances in various functional situations. The feature of using different syntactic structures in language provides language with it is features as a means for communication. This feature of using language productively and creatively is what differentiates human beings’ language from animals’ language. Also, some linguists consider language as a system of symbols; whereas, other linguists consider language as a system of signs.

**References**


