

Full Length Research Paper

Processes and source of linguistic knowledge: Explorations in the theories of language learning

Aladdin Assaiqeli

JORDANO SDN. BHD., Lot 2. 14, 2nd Floor, Plaza City One, Jalan Munshi Abdullah, 50100 Kuala Lumpur, Malaysia.

Accepted 5 June, 2012.

Children have an enviable capacity for acquiring competence in whatever language or languages they get exposed to and in a manner so rapid, so creative, so uniform, so systematic, so regular and indeed so easy compared with the mammoth task that they within a remarkably short span of time accomplish victoriously. This marvellous phenomenon unique only to humans has instigated scholars to propound various theories that aim to account for this feat, where some have argued that language is a genetic capacity originating from the brain, while others contended to look at it as a system originating from the environment. While the former approach views language acquisition as “genetically endowed and readymade,” the latter sees it as “environmentally fashioned and evolving”. Using the descriptive method, this paper, following a brief discussion of *early bilingualism*, and an initiatory section on “the father of modern linguistics,” explored and contrasted, within this context, these approaches concerning the processes and source of linguistic knowledge. Emphasising a third view, the *sociolinguistic approach*, the paper verified that language acquisition and learning was neither solely the result of innate knowledge (first position); nor the progeny of the environment of the child alone (second position); but rather the product of and interplay between both *social interaction* and *cognitive development*.

Key words: Language acquisition, genetic capacity, process, innate knowledge, environment, social interaction, behaviourists, mentalists, environmentalists, sociolinguistic, social semiotic.

INTRODUCTION

Children imitate the sounds and patterns which they hear around them and receive positive reinforcement [...] for doing so. Thus encouraged by their environment, they continue to imitate and practise these sounds and patterns until they form ‘habits’ of correct language use (Lightbown and Spada, 1999: 9)

[...] children must be born with some innate knowledge of the deep structure, of the properties of language (for example, the LAD and UG). They acquire language so easily and so fast because they know, in outline, what it is

they have to learn.

Every child has a ‘blueprint’ of language universals in his brain (Aitchison, 1974:151).

way it can take place except in these contexts. As well as being a cognitive process, the learning of the mother tongue is also an interactive process. It takes the form of the continued exchange of meanings between the self and others. The act of meaning is a social act (Halliday, 1975: 139-140).

Bloomfield, Skinner, Chomsky and Halliday, advocates

of four different theoretical approaches or positions to language acquisition and language learning, have each significantly contributed to the study of language, making it a distinct field of study and an autonomous scientific discipline. Structuralism, behaviourism, cognitivism and the social semiotic are the four schools or views adopted by the four above mentioned linguists, respectively. Each of these approaches or views concerned in a way or another with “the logical problem of language acquisition” introduces one of the main theories of first and second language acquisition. Within this context, this paper explores and contrasts the views and positions underlying the structuralist, behaviourist, innatist and sociolinguistic approaches to language acquisition and learning, espoused by Bloomfield, Skinner, Chomsky, and Halliday, respectively.

In doing so, the paper brings into light the theoretical views of a number of other linguists and psychologists on the highly contentious but equally interesting area or areas of language acquisition and learning, language development, language and the transmission of culture and the construction of reality.

Language acquisition, this “logical problem,” as once formulated by Chomsky, has for generations baffled and intrigued linguists, psychologists, researchers, and language teachers and practitioners everywhere. Different explanatory theories or hypotheses and various approaches and views have been put forth in endeavours to account for this marvellous human phenomenon, and indeed, as put by Bloomfield (1933) cited in Fromkin and Rodman (1998: 317), “the greatest intellectual feat anyone of us is ever required to perform”.

Language acquisition, this feat, unique only to *Homo sapiens*, becomes even more baffling and more intriguing as we study the potential of *simultaneous childhood bilingualism*, of raising children as bilingual or trilingual or indeed even polyglots since their very early years in life.

According to Lightbown and Spada (1999), there is a considerable body of research on the ability of young children to learn more than one language in their earliest years. The evidence suggests that, when simultaneous bilinguals are in contact with both languages in a variety of settings, there is every reason to expect that they will progress in their development of both languages at a rate and in a manner, which are not different from those of monolingual children (3).

Thus, Lightbown and Spada (1999) come to the conclusion that children who have the chance to learn or be exposed to multiple languages “from early childhood and to maintain them, throughout their lives are fortunate indeed and families that can offer this opportunity to their children should be encouraged to do so” (4).

Many other linguists and researches in the area of language acquisition have unanimously agreed that children have the aptitude to acquire their native languages with ease and success. Crystal (2003: 11), for example, asserts that “young children acquire more than

one language with unselfconscious ease”. This unselfconscious ease and this unique aptitude of young children for acquiring language within a remarkably short time is indeed phenomenal. This becomes, as noted, even more phenomenal when children who are exposed to two or three or more languages can acquire them with the same ease and success. According to Crystal (2003: 17), “children are born ready for bilingualism”. He adduces that “some two-thirds of the children on earth grow up in a bilingual environment and develop competence in it” (2003).

Bilingual acquisition or the acquisition of two languages either simultaneously or sequentially is a marvel that concerns linguists, language teachers and should equally concern parents who speak two different languages or who can provide a bilingual environment for the child since birth. Typically, this could be the case of a spouse of different extraction or even two spouses of the same origin but one is capable of speaking a foreign or a second language. This is typical of Arabic or French or Malay language teachers teaching English as a second or foreign language. In such households where there is richer and various linguistic input where parents, maids and possibly grandparents, for example, have different or can speak more than one language, the question of bilingualism, particularly early or *simultaneous childhood bilingualism*, should be a point of major concern.

People and even some language teachers and researchers, however, are divided as whether the child should be exposed at an early age to more than one language simultaneously. They are divided as to whether the focus should be on the first language first alone, and only after the child has mastered the syntactic structures of the first language can he or she be exposed to a second language. Each side has its own battery of reasons why *simultaneous bilingualism* or the simultaneous introduction of a second or third language should or should not be encouraged.

Opponents of *early childhood bilingualism* believe that simultaneity of language acquisition right since birth is detrimental in three respects. First, it slows down or retards the learning of the first native language. Second, it would affect the child’s cognitive development and his abilities of reading, arithmetic and other mental processes (Steinberg et al., 2001). Third; it would confuse the child and thus affect his mastery of either language due to the child’s inability to distinguish between two different and complex emerging grammars/systems. Besides these concerns or reservations or (mis) conceptions levelled against early bilingualism is the fear of *subtractive bilingualism*, a case in which the child’s native language may completely or partially get lost as another system is taking hold when the child’s first language skills have not yet been fully mastered (Lightbown and Spada, 1999).

Proponents of early bilingualism, on the other hand, state that what may sound or look for an adult as

confusion or retardation is not as it actually seems and that the child is aware of the presence of two grammars or operating systems or languages operating simultaneously and differently; but that he or she is in need of some time to sort them out. Lightbown and Spada (1999:4), along with those who share their view, as noted above, therefore, conclude that children who get the opportunity to learn a number of linguistic systems or languages from infancy and to maintain them throughout their lives “are fortunate indeed,” and parents or households that can offer such opportunity to their little ones should by all means do so.

Now, how do those little ones master such a tall order with such effortlessness is the question this paper, through a review of the most prominent theories in this area, seeks to address and investigate.

LANGUAGE ACQUISITION

How does language acquisition or learning occur? This is a question or rather a conundrum or mystique that has puzzled and intrigued many minds for a long time. Early language acquisition, this effortless, extraordinary feat, unique or common to all children brought up in normal environments, is not only a perplexing puzzle but also an impressive fact of the marvellous capacities Allah, the Omnipotent has endowed the rational animal with. Indeed, as Dan Slobin (1994) quoted in Fromkin and Rodman (1998) states:

The capacity to learn language is deeply ingrained in us as a species, just as the capacity to walk, to grasp objects, to recognize faces. We don't find any serious differences in children growing up in congested urban slums, in isolated mountain villages, or in privileged suburban villas (317).

Indeed, nothing can actually be thought of as more remarkable than the child's extraordinary ability to construct his or her “meaning potential” (Halliday, 1975), the potential of “what can be meant” (124) the potential of the semantic system, the semantic options or paradigms that make up this meaning potential.

In lucid, eloquent terms, Brown (2000) describes the capacity of children to acquire language as follows:

As small babies, children babble and coo and cry and vocally or nonvocally send an extraordinary number of messages [...]. As they reach the end of their first year, children make specific attempts to imitate words and speech sounds they hear around them, and about this time they utter their first “words.” By about 18 months of age, these words have multiplied

considerably and are beginning to appear in two-word and three word “sentences” [...] such as [...] “bye-bye Daddy,” “gimme toy,” and so forth. The production tempo now begins to increase [...]. By about age three, children can comprehend an incredible quantity of linguistic input; their speech capacity mushrooms as they become the generators of nonstop chattering and incessant conversation [...] (21)!

This prodigious aptitude or fluency, Brown (2000) further states, “Continues into school age as children internalize increasingly complex structures, expand their vocabulary, and sharpen communicative skills” (21). Here, at school age, young children not only continue to *learn language* and *learn through language* but also *learn about language*, to use terms used in functional linguistics theory. In other words, children at school age begin to learn what to say and what *not* to say as part of their learning of the social functions of their language or languages (2000).

Towards the end of this vivid description of the universal pattern that children go through in their process of language acquisition, Brown (2000) asks:

How can we explain this fantastic journey from that first anguished cry at birth to adult competence in a language? From the first words to tens of thousands? From telegraphese at eighteen months to the compound complex, cognitively precise, socioculturally appropriate sentences just a few short years later (21)?

These are, as noted in the introduction, the sorts of questions this paper raises and addresses.

Now, in an attempt to answer such questions, a number of theories of language acquisition has been put forth to explain this extraordinary aptitude of children for acquiring *linguistic knowledge*.

Besides the role of the *social milieu* or environment, what all such theories are in a way or another meant to account for is “the working of the human mind”. They all “use metaphors to represent this invisible reality” (Lightbown and Spada, 1999: 45). For example, such theories or approaches give primary importance to learners' innate ability or characteristics. Some others, however, stress the role of the social milieu in shaping language learning. The difference, for example between the position of the *innatists* and that of the *connectionists* is that while the former view “language input in the environment as a ‘trigger’ to activate innate knowledge,” the latter see such input as “the principal source of linguistic knowledge” (42). *Interactionists*, another group of theorists of language acquisition, on the other hand, “emphasize the role of the modification of interaction in conversations” (45) as the primary means to language

acquisition. As such, connectionists and “interactionists attribute considerably more importance to the environment than the innatists do” (22).

Thus, and apart from Halliday’s *sociolinguistic* conception of language learning, theorists are either *mentalistic environmentalist* in their approaches to language learning. Consequently, a Halliday (1975) state that from the mid 1960’s onwards, two conceptions of language learning dominated the scene: that viewing language learning as “genetically endowed and readymade” and that viewing language learning as “environmentally fashioned and evolving” (139).

In the following pages, following a brief section on the key linguist whose work has revolutionised *linguistic thought* by breaking with tradition and heralding a new era of *linguistic inquiry*, the paper sheds light on four of these positions or theories of language acquisition and language learning: structuralism, behaviorism, innatism and Halliday’s sociolinguistic approach.

FERDINAND DE SAUSSURE

Ferdinand de Saussure (1857 to 1913), “a founder of modern linguistics” (Fairclough, 2001: 5), or “the father of modern linguistics,” the linguist whose work was described in Western linguistic thought as a “Copernican revolution” (Harris and Taylor, 1989:177); the *terminus ad quem* or end of a certain long-held view of the focus of *linguistic research*; the one who viewed language as a “stable, structured system” (xviii); indeed “the first person to point out clearly that language was not a haphazard heap of individual items but a highly organised **structure** in which all the elements are interdependent” (Aitchison, 1972: 21), a major contribution to modern linguistic enquiry.

Saussure is the linguist from whom we date the era of *synchronic* or structural or *descriptive linguistics*, as opposed to *diachronic* or *historical linguistics*, another great contribution to 20th-century linguistics. The one accredited with such a significant contribution or shift in linguistic enquiry, Saussure, in a third significant contribution to modern linguistics, made a useful distinction between two levels of language which he designated as *langue* and *parole* below (1972).

It is these contributions that gave birth to structuralism, behaviourism, innatism, and other schools of linguistic thought.

Saussure, “whose posthumously published *Cours de linguistique générale* (1916) launched 20th century structuralism on its course” (Harris and Taylor, 1989: xviii), claimed that “there was a difference between **parole** (what Skinner “observes”, and what Chomsky [though with some difference] called performance) and **langue** (akin to the concept of competence, or our underlying and unobservable language ability)” (Brown, 2000: 10).

So while *parole* (speech/speaking) or what Chomsky (1986) later called *performance* or E-language is the external or “outward manifestation of language” (Brown, 2000:10), *langue* (language) or what Chomsky (1986) called *competence* or I-language is the internal hidden “abstract system” of language (Aitchison, 1974: 30). “The distinction is a useful one, since it recognizes the need for idealisation and abstraction, as well as concern with actual data” (30).

Maybe a shortcoming to Saussurean linguistic thought, Saussure stated the importance of *langue*, the deep abstract structure that generates *parole*. So Saussure’s focus was not on the actual use of language (*parole*) as would be the case by more recent *critical* approaches to language study such as *Critical Discourse Analysis* (CDA), but rather on the unobservable “underlying system of language” (*langue*); a fact about linguistics found “paradoxical” by CDA scholars such as Fairclough (2001).

As we shall see in our discussion of structuralism, behaviourism and innatism, in later years, different schools of thought gave more importance to one of those two levels of *logos*: *parole* and *langue*, at the expense of the other.

BLOOMFIELDIAN STRUCTURALISM

Before I discuss Bloomfield’s version of structuralism, it is important that I make clear what Saussure meant by the term “structural” or “structural linguistics”. According to Saussure, as put in the words of Aitchison (1974), structural linguistics:

Does not in general refer to a separate branch or school of linguistics. *All* linguistics since de Saussure is structural, as structural in this sense merely means the recognition that language is a patterned system composed of interdependent elements rather than a collection of unconnected individual items (21).

Thus, Saussure’s conception of “structural” is far more comprehensive than that of Bloomfield as discussed below.

Influenced by Saussure, Leonard Bloomfield, in his notable work *Language* (1933), endeavoured, through the creation of his own version of structuralism, to “lay down a rigorous framework for the description of languages” (Aitchison, 1974: 33). According to Brown (2000), Bloomfield stated that “only the “publically observable responses” could be subject to investigation. The linguist’s task according to the structuralist, was to describe human languages and to identify the structural characteristics of those languages” (8). Thus, Bloomfield’s focus was on *parole* or speaking: the observable or

“outward manifestation of language”. So in contrast to Saussure’s focus, Bloomfield and other structural or descriptive linguists of the 1940s and 1950s, “chose largely to ignore *langue* and to study *parole*” (Brown, 2000:10). So giving precedence to structure over function, Bloomfield, as noted by Aitchison (1974) considered that:

Linguistics should deal objectively and systematically with observable data. So he was more interested in the forms of a language than in meaning. The study of meaning was not amenable to rigorous methods of analysis and was therefore, he concluded, ‘the weak point in language study, and will remain so until human knowledge advances very far beyond its present state’ (33).

Due to Bloomfield’s negligence of meaning and his description of it as something that is beyond investigation, “the influence of Bloomfieldian structural linguistics declined in the late 1950s and 1960s,” giving rise in its place to the theory of *Generative Grammar* or *Generative Linguistics*, developed by Noam Chomsky.

Brown (2000) states:

The revolution brought about by generative linguistics broke with the descriptivists’ preoccupation with performance [*parole*] -the outward manifestation of language-and capitalized on the important distinction between the overtly observable aspects of language and the hidden levels of meaning and thought [*langue*] that give birth to and generate observable linguistic performance (10).

Meaning, as noted above, had no place in Bloomfield’s work. It “was not amenable to rigorous methods of analysis” and therefore ought to be excluded. Bloomfield’s preoccupation was “with the way items were arranged to form a total structure, to the exclusion of all other aspects of linguistics” (Aitchison, 1974: 21 to 22). In other words, Bloomfield was concerned with grammar in its narrow sense; grammar as networks of structure without any relation to function.

Chomsky (1965; 986), however, as I shall elaborate when I discuss *innatism*, was concerned more with *langue* or what he called I-language (Internalized Language) or competence, which refers to “speakers’ linguistic knowledge” (Fromkin and Rodman, 1998: 12) of the languages they speak. He has shifted attention away from detailed descriptions of actual utterances, and started asking questions about the nature of the system which produces the output (Aitchison, 1974).

Thus, in his 1986 book: *Knowledge of Language: Its nature, origin and use*, Chomsky, according to Grundy

(2000: 183) “describes how generative linguistics shifted the focus in language study ‘from the study of language regarded as an externalized object to the study of the system of knowledge attained and internally represented in the mind/brain’”. Chomsky’s central, thought-provoking question, according to Fromkin and Rodman (1998: 340) was: “What accounts for the ease, rapidity and uniformity of language acquisition in the face of impoverished data?”

In other words, Chomsky is more intrigued by *langue*, the hidden abstract system or structure or mechanism which gives birth to *parole*. He takes children’s marvel of *parole* as a catalyst to dig deep in the human brain to investigate this underlying hidden system that exponentially generates *parole* or the enviable and amazing inborn human predisposition to speech that in a relatively short period of time makes young children veritable chatterboxes.

Bloomfieldian linguistics concentrated on describing sets of utterances which happened to have been spoken.

As mentioned by Aitchison (1974), Chomsky criticised Bloomfieldian linguistics by stating that it was: Both far too ambitious and far too limited in scope. It was too ambitious in that it was unrealistic to expect to be able to lay down foolproof rules for extracting a perfect description of a language from a mass of data. It was too limited because such grammars had no predictive power. They catalogued what had happened, but did not predict what would happen (78).

Behaviourism: “Say what I say”

Behaviourism, “a psychological theory of learning,” was advocated by B. F. Skinner (1904 to 1990) in his *Verbal Behavior*, published in 1957. In his highly criticised *Verbal Behavior*, Skinner attributed learning to imitation, practice, reinforcement or positive feedback and habit formation.

Behaviourism is “behaviour that can be observed and measured” (MOHE KSA: 31). In this sense, behaviourism is close to Bloomfieldian structuralism. Just like structuralism, behaviourism’s focus was on *parole*, on performance, on the outward observable aspects of language, not *langue*, the holistic, internal, abstract and unobservable system of language.

Talking about behaviourism, Lightbown and Spada (1999) mention:

Children imitate the sounds and patterns which they hear around them and receive positive reinforcement (which could take the form of praise or just successful communication) for doing so. Thus encouraged by their environment, they continue to imitate and practise these sounds and patterns until they form ‘habits’ of correct language use (9).

Thus, for behaviourists, imitation and practice are the essential mechanisms for the language to be acquired or learned.

While Skinner's view of language learning does actually, at least on the intuitive level, explain some aspects of language acquisition, the fact remains that it is short of giving an adequate explanation for the complexities of language acquisition. As Lightbown and Spada (1999) point out, "imitation and practice alone cannot explain some of the forms created by the children. They are not sentences that they heard from adults. Rather, children appear to pick out patterns and then generalize them to new contexts" (15).

Indeed, my own child, Muhammad, at the age of 23 months, for example, knowing how a spider looks like, once at the sight of my hairy chest, pointed to my chest and much to my delight he excitedly exclaimed, "Spider!" It is certain that this overgeneralisation of the hair of my chest, which to him, resembled the tiny and many feet (eight actually in number) of a spider was never made by any adult around him.

In another incident, the researcher discovered that he used to refer to his carrycot as "ship," which indeed looked like a ship. No one had ever told him that that was a ship, but he creatively and because of a vocabulary gap due to his young age, thought of it as a ship.

On a third occasion, at the age of 2, 10, at the sight of a boat sailing in the deep, Muhammad jubilantly shouted, "The boat is swimming!" Now, his choice of the word "swimming," though inappropriate due to an age-induced vocabulary gap, is nonetheless *creative* and *novel*. And that is the point here: his use or lexical selection was creative and novel. His word choice was creative in the sense that it served the communicative purpose; and novel in the sense that no adult had previously said that or said that way. Such novel productions, frequently produced by children, this *linguistic ingenuity and novelty* on their part, render the behaviourist theory for language acquisition at best insufficient.

Furthermore, it has been observed that "the rules children construct are structure-dependent. That is, children use syntactic rules that depend on more than their knowledge of words. They also rely on their knowledge of syntactic structures, which are not overtly marked in the sentences they hear" (Fromkin and Rodman, 1998: 340). It has also been observed that "child grammar is rule governed at every stage" (Aitchison, 1974:153). That is, the grammar of a child is systematic rather than hap-hazard. An "example of the rule-governed nature of child language are forms such as *mans, foots, gooses*, which children produce frequently. Such plurals occur even when a child understands and responds correctly to the adult forms, *men, feet, geese*" (154). "This is proof," Aitchison (1974) concludes "that a child's own rules of grammar are more important to him than mere imitation" (154).

According to Fromkin and Rodman (1998), behaviourism or "the 'imitation' theory" cannot hold or account for another important phenomenon:

Children who are unable to speak for neurological or physiological reasons learn language spoken to them and understand what is said. When they overcome their speech impairment they immediately use the language for speaking (329).

So, incapable of explaining language acquisition whether L1 or L2 or any L for this matter, the behaviourist account despite its intuitive appeal, has, in the words of Lightbown and Spada (1999) "proven to be at best an incomplete explanation for language learning" (36).

Now, I turn attention to another more complex theory of language acquisition. That is the theory of the innatists or innatism as advocated by Noam Chomsky whose critical views of Skinner's *Verbal Behavior* cannot be more vehement or vociferous.

Innatism: "It's all in your mind"

Chomsky's (1965) hypothesis about the existence of *innate properties* of language to explain the child's mastery of incredible linguistic input in a remarkably short time despite the highly abstract nature of the rules of language rocketed linguistics and child language acquisition research to the sky (Aitchison, 1974). For Chomsky and contrary to behaviourists, *linguistic behaviour is innate, not learned*. He argues that children are "biologically programmed for language and that language develops in the child in just the same way that other biological functions develop" (Lightbown and Spada, 1999: 15). Hence, according to Brown (2000), Chomsky argues "that we are born with a genetic capacity that predisposes us to a systematic perception of language around us, resulting in the construction of an internalized system of language" (24). So, "while behaviorism looks at what can be observed and measured, cognitivism is about what occurs in the head of the learner" (MOHE KSA, n.d.: 34).

Such genetic Chomskyan view of language acquisition gave birth in the late 1950s to *generative linguistics*, "the programme of linguistics...investigating language as a biologically endowed cognitive faculty" (Cook, 2003: 128). The notion of innateness with its proposition of the LAD (Language Acquisition Device) and its later developed hypothesis of *Universal Grammar* has successfully managed to cast strong doubts about the sufficiency of Skinner's theories of *operant conditioning* and imitation. It has showed, as Brown (2000); Aitchison (1974) point out how limited the behaviouristic, stimulus-response (S-R) theory is in accounting for the generativity or productivity

of child language, aspects of meaning, abstractness, child's production of creative and novel utterances, and enviable mastery within a short period of a huge task, which Chomsky's nativist approach or view seemed to account for more adequately. In this context, Aitchison (1974) states:

Few people in the 1950s queried the processes by which language was acquired. Most assumed that children imitated the adults around them, and that their speech gradually became more accurate as it moved closer to the models they were copying. There seemed to be little mystery attached to this straightforward process (151).

Aitchison (1974) further states that Chomsky and his acolytes, however, drew attention to a number of points neglected in many previous studies. They first pointed out the unselfconscious ease with which, and the short duration during which children acquire their languages, where the major part of acquisition takes place approximately in *eighteen months* (eighteenth-thirty-sixth month). "And all children, even relatively stupid ones, do this seemingly effortlessly and competently" (151). Secondly, Chomsky and his followers observed that adult speech was the only apparent source of linguistic data from which a child worked in achieving this complex task. "Yet adult speech is extremely confusing. There are numerous unfinished sentences and ungrammatical utterances. How do children extract a grammar from this jumble?" (151).

Coming to this conclusion, Chomsky hypothesised or proposed the notion or hypothesis of *innateness*; that there are *innate* properties responsible for language acquisition; that children, as noted earlier, are "biologically programmed for language and that language develops in the child in just the same way that other biological functions develop" (Lightbown and Spada, 1999: 15). Now, it is possible here to argue that the proposition or presumed idea of adults' ungrammaticality or semigrammaticality underlying Chomsky's innatist approach is a myth as Labov's (1970) studies showed. Other linguists have also found that the speech addressed to children is carefully orchestrated and grammatically precise. This is to a great extent true but the question to be addressed here is whether what mothers (or whoever takes care of the child) utter to their children enough to make them speak fluently in a few years later. According to Chomsky and his followers, as mentioned by Aitchison (1974):

[...] children must be born with some innate knowledge of the deep structure, of the properties of language (for example, the LAD and UG). They acquire language so easily and so fast because they know, in outline, what it is they have to learn. Every child has a 'blueprint'

of language universals in his brain. All he has to do is to discover how his own language fits into these universal patterns. In transformational terms, a child has innate knowledge of universal deep structures. All he has to learn are the relevant transformations for converting this deep structure into the surface realization of his own language (151 to 152).

As observed by Lightbown and Spada (1999), "Chomsky's theory of language acquisition is based on the hypothesis that innate knowledge of the principles of Universal Grammar (UG) permits all children to acquire the language of their environment, during a critical period in their development" (36). Thus, they further state that according to Chomsky a child's mind is not a *tabula rasa* or blank slate "to be filled merely by imitating language" they hear around them in their social milieu. "Instead he claims that children are born with a special ability to discover for themselves the underlying rules of a language system" (16).

To be activated, this *genetic capacity* or this *innate knowledge* of language, however, requires a social milieu in which the child can have the opportunity to engage in personal conversations and social interaction. Absence of such social milieu will forego the opportunity of the child to acquire language. A child who is brought up in isolation of any social contact, for example, will not acquire language. Therefore, for such innate linguistic knowledge to be *activated*, the child must be brought up in a normal environment. The role of the environment in activating such innate knowledge can be likened to the trigger of a gun.

Thus, Lightbown and Spada (1999) state:

the environment makes a basic contribution-in this case, the availability of people who speak to the child. The child, or rather, the child's biological endowment, will do the rest. This is known as the innatist position. Chomsky proposed his theory in reaction to what he saw as the inadequacy of the behaviourist theory of learning on imitation and habit formation (Chomsky, 1959) (15).

Indeed, the ease, creativity, novelty, rapidity, uniformity, systematicity, regularity, structure-dependence, rule-governed nature of child grammar, and a host of other characteristics of child language make the views and theories of imitation, reinforcement, and analogy obsolete as adequate accounts accounting for this most extraordinary feat every one of us in their early lives goes through, seemingly effortlessly and brilliantly. "These views..." as Fromkin and Rodman (1998) state:

Cannot account for the nonrandom mistakes children make, the speed with which the basic

rules of grammar are acquired, the ability to learn language without any formal instruction and the regularity of the acquisition process across diverse languages and environmental circumstances (331).

Now, while it is obvious that the *behaviourist account* of how children acquire and master a language is “inadequate” and even naïve, hence providing the ground for the *innatist account*, is it on the other hand completely plausible that this feat *mastered* by young children the result of ‘innate’ structure or properties; that the child is being born with *knowledge innatism* or the linguistic knowledge (deep structure/Universal Grammar) of the language he/she gets exposed to?

In addition to the question marks raised about the basis Chomsky (1965) predicated his “innateness hypothesis” on that the linguistic input that children hear or receive from those around is “extremely confusing” and is N characterised by “numerous unfinished sentences and ungrammatical utterances,” is it really true that the role of environment and experience in language acquisition just a mere trigger, and not the principal source of and behind this linguistic knowledge, claimed by *nativists* to be innate in us? With these doubts or enquires in mind, I now move on to explore a third view of language acquisition and language learning?

Halliday and language as a social semiotic

Now, we begin to explore the Hallidayan conception of language and language learning. So this section seeks to explore Halliday’s *sociolinguistic approach* to language learning, his elaborate work and view of language as a *social semiotic*.

Besides the key words, “function,” “system,” and “choice” in Halliday’s work on language and learning, which drive the whole theory of *Systemic Functional Linguistics* (SFL) or *functional grammar*, “culture,” “text,” and “context” also feature as significant terms in his language as a semiotic system, away from “the language system itself” (Halliday, 1975: ix) operates within the social context of a culture, and that culture is being learnt and transmitted through language, on the one hand and produced by language on the other. Thus, “... a child, in the act of learning language, is also learning the culture through language. The semantic system which he is constructing becomes the primary mode of transmission of the culture” (ix to x).

According to this view, language and culture are brought together where language or systems of meanings (semioticsystems/discourse) in general (of which language or the *linguistic semiotic system* is only “one mode of realization of these meanings” (Halliday, 1975: 139) are constituted by and interpreted within the

The social semiotic is the system of meanings that defines or constitutes the culture; and the linguistic system is one mode of realization of these meanings (139).

Thus, when we talk about language as a *social semiotic*, interpreted within the context of culture, and this culture is interpreted in terms that are semiotic. Therefore, culture and language are bound together. Language takes shape in a particular culture, and culture is shaped and we talk about culture and context, or what Halliday (1978) calls the *sociocultural context*. Therefore, language is interpreted by a particular language, hence Halliday’s view of language as a social semiotic.

Before proceeding any further, it is worthwhile to note at this point that Halliday’s view of language as a social semiotic (or one part or mode of the social semiotic) comes within the context of language learning and how a child learns his/her mother tongue, that is how he/she builds up what he (1975) calls his/her “meaning potential, that is the potential of “what can be meant,” “the potential of the semantic system,” the semantic options or paradigms that make up this meaning potential (124). Thus, following his definition of the social semiotic, quoted above, Halliday (1975) adds:

The child’s task is to construct the system of meanings that represents his own model of social reality. This process takes place inside his head; it is a cognitive process. But it takes place in contexts of social interaction, and there is no way it can take place except in these contexts (139).

Halliday (1975: 139 to 140) further adds:

As well as being a cognitive process, the learning of the mother tongue is also an interactive process. It takes the form of the continued exchange of meanings between the self and others. The act of meaning is a social act (139 to 140).

Therefore, for Halliday (1975), language learning is, first a *process*, not a genetic capacity; and second, it is a process that is both *cognitive* and *interactive*; that is, the social semiotic, of which the linguistic system is “one mode of realization,” is the system or network of meanings that develops gradually and progressively as the child cognitively grows through (maturation) and social interaction. “He builds the semiotic of his own society, through interaction in family, in peer group, and, later, in school - as well as in a host of other microsemiotic encounters [...]” (143 to 144).

Halliday’s description of language as a social semiotic reflects the notion that it is through language that a *social*

system and a *semantic system* are constructed. "In the process of building up the social semiotic, the network of meanings that constitutes the culture the child is becoming a member of the species 'social man'" (Halliday, 1975: 121).

Through language, the child learns the culture, the receptacle in which language and other semiotic systems take place and operate. "The reality that the child constructs is that of his culture and sub-culture, and the ways in which he learns to mean and to build up registers...are also those of his culture and sub-culture" (Halliday, 1975: 143). Thus, both language and culture are interrelated semiotic systems, which make up the social system. Halliday (1975) describes this very complex situation or this language-culture imbrication as intertwined semiotic systems that constitute or take place within one another as follows:

In principle, a child is learning one semiotic system, the culture and simultaneously he is learning the means of learning it - a second semiotic system, the language, which is the intermediary in which the first one is encoded (122).

For Halliday (1978), language is a *social phenomenon*; it exists in a social context. Thus, language is *social* because it takes place within the social context of culture; and is *semiotic* because "the culture itself is interpreted in semiotic terms" (1978).

It is interesting to note, at this point, that this view is more comprehensive or more explicitly formulated and more adequate or explanatory than that of Chomsky who views language primarily in innatist terms; as the product of a genetic capacity rather than a process of cognitive development and social interaction. Halliday's conception of language as socio-semiotic or sociolinguistic is more plausible an explanation and more in line with language as operating only in a sociocultural context.

Halliday's notion of language as *social* seems to be derived from Malinowski's (1884 to 1942) concepts of *context of culture* and *context of situation*, "as modified and made explicit by Firth" (Halliday, 1975: 125). According to Firth (1968), for language to operate, a context of culture, and that of situation are needed. One may also say that the notion of language as *semiotic* (social semiotic) might have been inspired by Saussure who viewed language in his *theory of semiology* as semiotic.

So, in his formulation of his theory of language as a social semiotic, it is clear that Halliday has built upon other works that treated language from a *sociocultural* perspective. A prominent figure, here, would be Lev Vygotsky (1896 to 1934) whose *sociocultural* theory of language and learning was based on his *Zone of Proximal Development* (ZPD), or the level of language

development a child or learner is capable of when interacting with an adult or a more advanced peer or proficient learner. Thus, unlike Chomsky and the innatists, and even Halliday to a certain extent, Vygotsky concludes, as stated in Lightbown and Spada (1999: 23) that "language develops entirely from social interaction".

Another prominent figure who can be thought of as espousing the *interactionist position* as an explanation for language acquisition and learning, and hence influencing the Hallidayan conception is the Swiss psychologist, Piaget (1896 to 1980). Again, unlike the innatists who view language as stemming primarily from one particular localised region of the brain as opposed to social interaction - and thus operating independently of other cortical organs or brain functions; the notion known as "modularity of the brain" (Fromkin and Rodman 1998: 35), Piaget views language learning and development as stemming from *social interaction*. In the words of Lightbown and Spada (1999), "Unlike the innatists, Piaget did not see language as based on a separate module of the mind" (23).

However, whether Halliday was influenced by Firth, Saussure, Vygotsky, and Piaget or any other interactionist or connectionist is not an issue. The fact remains that it was Halliday who developed our conception of language through his conception of it as social and semiotic *together*, hence his view of language *associo-semiotic* or *social semiotic*.

Chomsky and the innatists see the role of social interaction as only a trigger. However, Halliday (besides cognitive development) sees it as principal. Therefore, while Chomsky and the innatists see *logos* as originating primarily from the mind, and hence their emphasis on innatism, Halliday (also unlike interactionists who see only interaction as the cause behind learning) sees *logos* or language learning as a *process operating in the mind but taking place in contexts of social interaction*, and hence his emphasis on social interaction.

The notion of language as '*social*,' as noted, is rooted in the research of interactionists or those holding the *interactionist position* in language acquisition and language learning, those who deem (modified) *social interaction* or the role of the environment, as opposed to the brain or any innate capacities, as the key in the process of language acquisition and language development throughout life. So, Halliday's depiction of language as social and that it is a social phenomenon, and that it exists in a social context is not new.

However, as this paper has shown, what is sophisticated here is the combined notion of language as social semiotic together, which brings "the semiotics of the culture at the level of grammatical constituent, at the level of clause". Hence, it is not only the context of situation where semiotic signs operate but also the sociocultural context of culture where sociocultural signs operate as well. It is semiotics within a sociocultural

context, it is the operation and development of semiotic systems of which language is one within the social context of culture, hence again Halliday's sophisticated observation or notion of language as the social semiotic, the network or system of meanings which constitutes the culture.

CONCLUSION

Within the context of language acquisition and language learning, this paper, following a brief discussion of early bilingualism, encouraged in this paper, and a section on "the father of modern linguistics," explored and investigated the views and philosophies of each of Bloomfield, Skinner, Chomsky, and Halliday regarding important issues in language acquisition and learning.

The paper stated that children have a marvellous capacity for acquiring competence in whatever language or languages they get exposed to, and in a manner so rapid, so creative, so uniform, so systematic, so regular, and indeed so easy compared with the mammoth task that they, within a remarkably short span of time, accomplish victoriously.

In endeavours to account for this "fantastic journey" that begins with an anguished cry at birth and culminates in adult competence in language a few years later, linguists have propounded a number of theories explicating the processes and source of this linguistic knowledge. Drawing on Saussure's useful distinction between what he called *parole* and *langue*, most theories, apart from Halliday's, gave paramount importance to either the role of the environment, or hidden innate properties.

Thus, the paper explored two major approaches or polar positions regarding the source of linguistic knowledge: the *environmentalists* who view language as "environmentally fashioned and evolving," and the *mentalists* who view language as "genetically endowed and readymade" (139), or "a biologically endowed cognitive faculty" (Cook, 2003: 128). While *behaviourists*, *connectionists*, and *interactionists* (with some variation) are examples of the first position, the *cognitivist* or *innatists* are examples of the second, the mentalists. Halliday, however, with whose view this paper takes side, sees language as taking place in the mind but shaped and constructed in contexts of social interaction.

Within the scope of this paper, the paper has shown that Skinner and Bloomfield are examples of the former position which is amenable to measurement and observation, investigation and scrutiny, while Chomsky and his acolytes as examples of the latter position, the mentalist or *intraorganism approach*, the *langue* or the hidden and unobservable aspects of language. Halliday, while acknowledging that the construction of the system of meanings (the social semiotic) is a *process* that takes

place in the child's head, stresses that "the act of meaning is a social act. So, while Chomsky views language as an *innate capacity*, as being rooted in the human brain, Halliday views language as a *semiotic* or *social semiotic* built up based on a *process* that takes place in the mind, and another taking place in contexts of social interaction. Thus, "Unlike Chomsky's view of language as a *syntactic system* innate in the mind, Halliday views language, not as "a capacity we carry around in our brains," but rather a resource, a cultural resource shaped and constructed through the "microsemiotic encounters" a child goes through:

Halliday's theory is not just a theory of language, it is a theory of behaviour; not in the sense of Skinner's theory of behaviour, but in how, through interactions we become cultural subjects, so that our lives embody our culture with all its complexities, ambiguities and contradictions [...] (<http://golum.riv.csu.edu.au/~srelf/SOTE/EML504/Halliday.htm>).

Thus, in *Language as Social Semiotic*, published in 1978, Halliday writes:

The child learns his mother tongue in the context of behavioural settings where the norms of his culture are acted out for him and enunciated for him in settings of parental control, instruction, personal interaction and the like; and, reciprocally he is 'socialized' into the value systems and behaviour patterns of the culture through the use of language at the same time as he is learning it (23).

So, culture and language emerge and develop concurrently or simultaneously. As the child learns language (a semiotic system), he/she is also acquiring the culture, the social norms and value systems, etc. (other cultural semiotic systems).

Halliday, whose explanation, in my opinion, is the most plausible, thus views language or linguistic knowledge as the product of both *social interaction* and *cognitive development*. Thus, unlike Chomsky who looks at language from a psychological point of view and is thus concerned with the question of how language is stored and processed in the mind, hence his innatist account; Halliday who looks at language from a sociological or sociolinguistic point of view is more concerned with the questions of why and how children learn language, and "what people do with language and how language mediates meaning," hence is his *sociolinguistic* or *socio-semiotic* view or account of language. Hence, according to Chomsky, children learn language because they are biologically programmed to do so, the brain is programmed

or predisposed genetically in a way that would make them acquire it; and they do that through (the “core” or general principles of) UG. For Halliday, however, children learn language for purposes of communication and interaction; and they do that through using the resources of the language: semantics, lexicogrammar, and phonology. Thus, while Chomsky’s concern is about structure, Halliday’s concern is about use or function (“What people do with language and how language mediates meaning?”).

Now, though the paper has projected the Hallidayan account which views *language as taking place in the mind but is shaped and constructed in contexts of social interaction*, as the most plausible explanation of this “fantastic,” enviable and “marvellous” phenomenon, the fact remains that language acquisition and language learning with all their complexities “represent a puzzle for linguistic, psychological, and neurological scientists which will not soon be solved” (Lightbown and Spada, 1999: 45), as “a ‘complete’ theory of language acquisition is probably, at best, a long way off” (45). The complexities of language acquisition will possibly continually remain a driving force for continuous attempts at more adequate explanations for this marvellous human feat with which Allah glory be to Him - has distinguished the human being from all other living species.

REFERENCES

- Brown HD (2000). Principles of Language Learning And Teaching (4thedn.). New York: Addison Wesley Longman, Inc.
- Atchison J (1974). General Linguistics. UK: English Universities Press Ltd.
- Crystal D (2003). English as a Global Language (2ndedn.). UK: Cambridge University Press.
- Cook G (2003). Applied Linguistics. Oxford: Oxford University Press.
- Chomsky N (1986). Knowledge of Language: Its nature, origin, and use. New York: Praeger.
- Chomsky N (1965). Aspects of the Theory of Syntax. Cambridge: Mass.
- Firth JR (1968). Selected Papers of J. R. Firth. 1952-1959. (ed. F. R. Palmer). London: Longman: (Longman Linguistic Library).
- Fairclough N (2001). Language and Power (2nd edn.). London: Longman.
- Fromkin V, Rodman R (1998). An Introduction to Language (6thedn.). USA: Rinehart and Winston.
- Halliday MAK (1975). Learning How to Mean: Explorations in the Development of Language. London: Edward Arnold.
- Halliday MAK (1978). Language as Social Semiotic: the Social Interpretation of Language and Meaning. London: Edward Arnold.
- Harris R, Taylor TJ (1989). Landmarks in Linguistic Thought: The Western Tradition from Socrates to Saussure. Great Britain: Routledge.
- Lightbown PM, Spada N (1999). How Languages are Learned (2ndedn.). Oxford: Oxford University Press.
- MOHE KSA (n.d.). Successful E-Learning Management Programme. National e-Learning and Distance Learning Center.
- Steinberg DD, Nagata H, Aline D (2001). Psycholinguistics: Language, Mind, and World (2ndedn.). Harlow, England: Longman.
- Theories of Language: Halliday’s Theory-language as a social semiotic. Retrieved Feb. 24, 2010. <http://golum.riv.csu.edu.au/~sreiff/SOTE/EML504/Halliday.htm>

APPENDIX A

Personal note: Children and repetition

In this annexure, I would like to end this paper with a personal note concerning the role of child repetition of utterances in the process of language acquisition and learning. Children tend to repeat what they hear and sometimes almost indefinitely and in a way that may tire those around out and make them lose their nerves.

Child repetition of linguistic utterances is a phenomenon (known in colloquial parlance as pester power - the ability of children to have their parents get them what they want through repetition) that should pose a question for those seeking to explain the processes of acquiring linguistic knowledge. What is the role of repetition in language acquisition and language development? Is repetition mere chatter and an indication that the child is a veritable chatterbox?

Children seem to be endowed with a *Built-in Repetition Mechanism* (BRM). It is important to note here that it is the mechanism or *process* of repetition that seems innate but not the linguistic knowledge itself which is the result of social interaction. So, it is not that the child has "a 'blueprint' of language universals in his brain" but rather a natural tendency to repeat and in the process learn and consolidate linguistic input. So, repetition is a natural subconscious *process* by which the child consolidates learning.

This process which I called BRM has two manifestations, one is *internal* where the child *mentally* or silently repeats linguistic input in his/her own mind, and the other is *external* where the child *verbally* repeats in the outside world what he/she hears. The BRM or this apparently subconscious and automatic process of repetition operates into two stages. The first stage is consolidation and enhancement. In this initial stage, the child's Built-in Repetition Mechanism consolidates and enhances simultaneously the linguistic input that he/she receives through the Zone of Proximal Development

(ZPD) or the social interaction with those around. The second stage is that of rule deduction and grammar extraction. Here the child endeavours indefatigably to deduce and discover rules and systematic patterns of language and how they work and what best gets the approbation of those around and or what he/she desires to achieve. This occurs through the child's sequential application of the BRM with him/herself. At times, the child repeats sequentially the linguistic input he/she has received in a way that enables him/her to consolidate and enhance, on the one hand this linguistic input, and to sort out the nature or shape of an already emerging grammar, on the other hand. Therefore, for the child, repetition is not loquacity as it may seem to parents; it is rather a process, a built-in mechanism for language acquisition.

In my view, this automatic process or Built-in Repetition Mechanism may offer us an insight into the child's marvellous and indeed extraordinary ability to achieve a mammoth task. The BRM facilitates language practice and in the process acquisition. It is through this frequent and subconscious repetition that the child consolidates and enhances, deduces, internalises and extracts the grammar of the semiotic system or systems he or she is being exposed to through the daily social interaction, the "microsemiotic encounters" he or she has with his/her parents, group peers, and those around.

APPENDIX B

The following appendix is a record of the linguistic development of a child who has been raised as a bilingual right from the start. The child has been exposed to input of two different codes simultaneously. The chief source of the two codes, Arabic (Appendix B(ii)) and English (Appendix B(i)), is his parents; his mother being the primary source of Arabic, and his father, who is not a native speaker of English but a highly proficient ESL teacher, is the chief source of English. The appendix is meant to favour early bilingualism.

Appendix B(i). Simultaneous Childhood Bilingualism: Muhammad's Level of Acquisition of the English Language System by Age 2: A corpus based on a parental diary of speech development (as part of the social semiotic the child is progressively constructing).

Nouns/ Adjectives	Nouns/ Adjectives	Nouns/ Adjectives	Nouns/ Adjectives	Verbs	Compound words	Phrases/Phrasal Verbs/Adverbs/Simple Sentences & Interjections
hose	car	salad	Cola	give	car key	Dry your face.
hammer	cat	tasty	shower	take	big car	Shake my hand.
pin	donkey	juice	horse	sleep	football	How are you?
bear	monkey	cake	socks	eat	airplane	Speak to the parrot.
kiss	cow	bike	shoes	drink	prayer mat	Give him a kiss.
clock	ball	sea	purse	open	ice cream	Put it in the bin.
watch	skip	(tooth) pick	money	come	eyebrows	Sit down!

Appendix B(i). Contd.

Quran (when seen heard) sheikh hot smart lemon sour (lemon) lion switch belt peg hanger hair cheek chest tummy nipple ass/ butt phone/ telephone piano duck goose jeep moon perfume lips eye singlet diaper cock balls light sky nostrils smart neck basket cot biscuit chocolate fan camel dog roach	or pen pencil clip spoon fork table glasses orange kiwi bread soup soap shampoo hand ear head face shoulder (s) foot fingers toes tissue plate flag cassette parrot book box man woman baby boy girl moustache picture T.V. A.C. water shani (drink) wheel battery leg date ant tongue	shovel balloon macaroni mortadella gun swing racket milk truck mouth goat rabbit snake nose bed stone (of fruit) pip hat elephant sun spit disc cracker saucer pants underpants shirt tie suds corner armpit blender garbage clothes music tumbler incense cough ankle laptop honey rosary yoghurt door tail	button glass tea towel coffee rice onion pepper banana knee fart circle bottle scissors bird pillow cushion tap receiver lid flower tree stapler chicken meat fish chair stool enough spider heater ship giraffe teeth brush loofah kitchen chips pocket knife candle comb gum window shorts cucumber	pray wait wake up throw want spray (perfume) dress up put on	earlobe (pea) nuts corn flakes wind chimes	Stand up! Go down! Go up! Close (the door) Turn on/off Bring me... Bring the shoes to kill the roach. look at some more (of something) Take off your socks/shoes Give the bottle/stapler etc. to (someone). Where is... Put it back... Come here! No Go out! Bye! Bravo! Wow! Of course Use your right hand. Shoot the ball. Shoot the man (with a gun). Good morning! Bye! See you! All right! Let go
--	---	---	--	--	---	--

Appendix B(ii). Simultaneous Childhood Bilingualism: Muhammad's Level of Acquisition of the Arabic Language System by Age 2: A corpus based on a parental diary of speech development (as part of the social semiotic the child is progressively constructing).

الأفعال	الأسماء	الأسماء
سكر (الباب-الثلاجه)	طيارة	ففل
افتح (الباب-الثلاجه)	سيارة	دبوس
هاتي (تفاحة- موز)	ثلاجة	قلم
روحي		ساعه
تعال	ماء	حمام
بدى (اكل)	لحمه	صورة
بديش	تفاحة	فتوش
نام	موز	عصفور
كمان (عصير- ماء)	صابون	قشاطه
أعطيني	بوسه	معلقة
طعميني	عصير	سكين
اكل	سكر	ز عتر
ترضع	علكه	حلوه
أقوم	شاي	فراشة
أقعد	كاسه	قداحة
البس	فلافل	مقص
اشلح	صراصير	عينك
وقعتيها	جرافة	رأس
بره	تخت	مربي
يله	شاورما	أحبك
خلص	فن	تيتى
توجع	فليكس	سيديو
غسل اديك	حليب	بالون
	برفان	ايدك
	كلوت	رجلك
	لين	شاطر
		كورن