# First Language Acquisition: Towards Strategy-Oriented Perspective

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**Abstract:** A lot has been allocated to how a child learns to talk, but what has been neglected is the reason why he starts to. Satisfying biological needs, at most, would have been the first objective of the child. However, what he intends is communication for which the primitive signs and gestures are transformed into codes whether it be sounds uttered or figures engraved on the papers. Strategy leads the child to find his way into the community he belongs to, and language just like other abilities develops as he grows up biologically. His experience with otherese assists him to find the path, explore, experiment, practice and get involved with meaning-geared communication for which he goes all out to use linguistic aspects. In almost all developmental processes, when the child is not able to express oneself clearly, compensation strategies are resorted to in order for his/her intentions to become realized. However, these long-lasting strategies are not erased with the passage of time since they are taken to be devices of perfect versatility which appears to last for a lifelong period.

Key terms: First Language (L1), language acquisition, learning strategies

#### 1. Introduction

First language acquisition research has witnessed many changes in perspectives since its genesis. There are different views on how a child learns to talk, which we now consider them.

As reason plays a significant role in any activity one does in life, the first hunch is that a child develops language to find satisfying reasons for thought-provoking questions in his environment. Beauzee (as cited in Lust and Foley 2004, p 15), a leading 18th century rational grammarian, defined general grammar as a deductive science concerned with the immutable and general principles of spoken and written language and their consequences; it is prior to all languages, because its principles are the same as those that direct human reason in its intellectual operations. Thus, the science of language does not differ at all from the science of thought. Particular grammar is not a true science in the sense of this rationalist tradition because it is not based solely on universal necessary laws; it is an art or technique that shows how given languages realize the general principles of human reason. As Miller (as cited in Lust and Foley, 2004, p. 15) later expressed the same leading idea, the principles and rules of grammar are the means by which the forms of language are made to correspond with the universal forms of thought. The structure of every sentence is a lesson in logic.

During the Romantic period some people like Humboldt argued that there existed a belief that the nature and content of thought are determined in part by the devices made available for its expression in particular languages.

With the demise of logical positivism and the emergence of cognitivism, the prominent view became rule-based orientation towards language learning. These rules were in-built and what children were in need of was exposure to enough input in the environment for their LAD (Language Acquisition Device) to get activated; it resembled mathematical ability which on condition that you learn the fundamental abilities such as addition, subtraction, multiplication and division, then you are able to do wonders with numerical signs. Chomsky in the mid-1950s called this productivity of inborn language "generative grammar" asserting that it limits itself to certain elements of this large picture; its standpoint is that of individual psychology; it is concerned with those aspects of form and meaning that are determined by the "language faculty", which is understood to be a particular component of the human mind. The nature of this faculty is the subject matter of a general theory of linguistic structure that aims to discover the framework of principles and elements common

to attainable human languages; UG may be regarded as a characterization of the genetically determined language faculty. One may think of this faculty as a "Language Acquisition Device", an innate component of the human mind that yields a particular language through interaction with presented experience, a device that converts experience into a system of knowledge attained.

Research on animal perceptual abilities (Cutting & Rosner 1974; Kluender, Diehl, & Killean 1987; Kuhl & Miller 1975; Kuhl & Padden 1982; Miller, Maruyama, Beaber, & Valone, 1976) suggests that both human and nonhuman discriminations depend on properties of the hearing system and not on any specialization in human just for the processing of speech sounds. These findings almost cast doubt on the existence of LAD just for language learning in human beings. As bees have potentiality to discriminate the odor, shape, pattern of flowers, human beings have the potential to differentiate the sound patterns, structures and above all meanings. Bees know the time of the day at which each flower provides nectar; they schedule their visit besides learning about enemies. It is clear that upon identifying the need, they develop some techniques in tune with the experience they obtain from their environment as is the case with babies who cry as the first step to find what reaction they get from the as-yet-unfamiliar surroundings. Even bees have some sort of cognitive ability by which they find their route (Gould & Marler, 1987). Do children have a mental map leading them towards the right track? If they are equipped with some cognitive ability, it will be likely for the human being to bear such ability enabling them to come up with some ways of communication that we call language.

Innatists' ideas have come under some criticisms whose avoidance seems inevitable. Piaget (as cited in Lust & Foley 2004, p. 69) states that autoregulation is what innatists forget. In fact, they define autoregulation as a kind of mechanism which plays a significant role quite like a genome or even more important than that. According to Piaget, the roots of autoregulation are organic, and common to biological and mental processes, and the fact that its actions are controllable can be a great advantage. Autoregulation is, therefore, constructivist. Along the same line, Piaget asserts that mutation in which innatists believe would be biologically inexplicable since our present goal is to emphasize the stability and the importance of cognitive structure and in particular the fixed nucleus in the field of linguistics; Piaget believes that the fixed nucleus would retain all its properties if it were not innate but constituted the "necessary" result of constructions of sensory-motor intelligence which takes place prior to language development and results from the joint organic and behavioral autoregulatios that determine this epigenesis.

When Chomsky in the 1960s proposed that the human capacity for language was innate, he put forward two rationales:

- 1. Adults offer such a distorted and imperfect source of data
- Children learn their first language so fast that must be relying on an innate capacity, specifically for syntax

As Clark (2003) states, "child-directed speech is often singularly well-tailored to its addresses, highly grammatical in form and virtually free of errors" (p. 28).

Maclay & Osgood (as cited in Clark, 2003) contend that: (a) adults actually offer highly grammatical speech to children (b) children take considerably longer to acquire syntactic structure in their first language than originally estimated. <sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Reilly (1982, 1986) investigated the conditional structures in English and found that at age 4 not all but many children could make use of future, present, and counterfactual conditions in talking about how one event is contingent upon another. They may still have to master a number of details (for instance, the appropriate sequences of tenses in such constructions), but they appear to have grasped what it means for one event to be contingent on another both in reality and in some hypothetical world.

Another common perspective which advocates what innatists believe is the poverty of stimulus argument. Children are exposed to degenerate language so how can they develop their language this much fast? Pullum (1996) examined the claim about variety in 23,886 interrogatives in the 1987 Wall Street Journal (*WSJ*) corpus. The fifteenth question in the corpus offered evidence of structure-dependence, as did several other examples in the first 500 interrogatives. Since such forms do occur, both there and in other types of text, they are probably available to children as well. Even in (*WSJ*) corpus, the text often quotes people's utterances from interviews, so this is not simply a matter of written form. Several other putative cases of poverty of the stimulus suffer from the same fate (Pullum & Scholz, 2002). They do appear and are nowhere near as rare as some linguists have claimed. People do hear linguistic evidence for structure dependence, children could, therefore, learn those constructions from child-directed speech.

The claim that, "This is still a very controversial view, and many linguists and psychologists do not believe language is as innate as Chomsky argues" is diminishing in light of further studies. Mark Baker's work, The Atoms of Language (2002) presents a pretty convincing argument that there are not only certain" parameters" (as Chomsky called them) that are innate switches in our LAD, but we are very close to the point where these parameters could be put together in a "periodic table of languages" as determined by their parameter features.

Clark (2003) counts some limitations accompanying Chomsky's ideas:

What belongs in UG?

How many parameters are there?

How much exposure to a language and what kind of evidence do children need to set a parameter in the continuity account?

Is it reasonable to assume that learning syntax is quite separate from learning the rest of language – the lexicon, phonology, morphology, and all the pragmatic conditions on usage?

It is also hard to separate off language from affect, perception, and cognition. (p. 403)

Now that we went over some problems associated with nativist point of view, it seems rational to mention some functions of the tool we would call language. This tool can be used of for conveying meaning, social interaction, transacting and exchanging information. Clark (1978) was the first to use the word strategy; she asserts that:

By *strategy* I mean the choice of a device to communicate a particular meaning. hildren might choose a single word, a two-word combination, or a fully grammatical utterance, depending on what they want to convey, and how much they know of their first language. (p. 423)

In this paper, the researchers used Clark's terminology to put forward a rather new way of acquiring first language. To Clark, strategy is a device, but it can be the tool, instrument, tactic, or any sort of performance-based activity done to tackle both in-context and out-context problems. To this date, this terminology has been used for second language learners as developed to make up for the lack of knowledge of the second language.

When it comes to children, all the time, scholars have tried to find and cling to some reasons so that they could explain how children learn languages. Some scholars such as Skinner put forward conditioning as the solution and the stimulus, response and positive reinforcement as the processes through which children learn language. Then Chomsky put forward his idea of inborn language acquisition device which enables learners to acquire rules of language through which they can generate an infinite number of sentences of their language. However, two important factors are missing: first the objective of language learning, i.e., communication and then the sociolinguistic factors which abound the environment children live in. Slobin (1973) said that the first and most obvious point that comes to mind is that language is used to express the child's cognition of his environment – physical and social – and so a child cannot begin to use a given linguistic form meaningfully until he is able to understand what it means. It should be possible, then, to rank linguistic forms in terms of psychological or cognitive complexity of the notions they express. Is it possible to trace out a universal course of linguistic development on the basis of what we know about the universal course of cognitive development?

When the social aspect of learning a language came to the scene, social interactionism and social constructivism were given substance. Along the same line, the cognitive development proposed by Piaget put forward another area in which first language acquisition processes can be sought.

However, it seems feasible if we think of all the actions carried out by children as strategies of one sort or another to get the meaning across. If asked how it is possible, the answer would not refute the potential ability of children to learn as they learn other abilities besides language in the course of time; furthermore, as they act upon the environment they receive feedback too, so nobody would deny that children, if isolated, can learn language since it is innate. Genie, a 13 year and 7 month girl appeared to understand words which she was not able to produce herself. She was a case of

isolation from the society in which she could have developed language, but what seems noteworthy is the fact that she could comprehend those words after staying with others for a while. Therefore, the distinction between competence and performance offered by Chomsky makes us hesitant that whether her understanding goes for competence or performance while Fromkin, Krashen, Curtiss, and Rigler (1974) call comprehension also a sort of performance.

As Slobin (1973) named his perspective functional, this very perspective can be called strategical. These strategies are developed one after another until the child comes up with accurate and fluent speech. Stepping in the world, the child needs to satisfy one's **biological** needs for which there exist some senses helping him to achieve what he is in need of. Visual modes such as eye gaze appear to be a method to direct the attention of the addressees. Other senses including tactile, acoustic, gustatory, and olfactory each contribute to a child's association with the new environment. These are not just some senses for organic functioning of the body, but they convey special meaning to the child's parents. Affect can be realized via tactility, but not gustation. Children also reply to hearing stimulus showing that they understand what lullaby means. Research has shown that children can distinguish the smell of their mother among others. Therefore, all their attempts are geared towards finding some ways through their perceptual strategies to communicate with their parents in the first phase and then with others.

When they are quite competent in applying these strategies to make themselves understood, they step towards social milieu further by resorting to **social** strategies.

They try to share some time with others other than their families. In doing so, they associate more with otherese to develop their primitive language. In the course of association, sometimes they repeat the sounds or sentences they hear. Repetition is not regarded as the only way of learning the rules of the sentence construction in language but it can have many functions. As Clark (2003) mentions repetition can be used in many ways:

Repetitions help speaker and addressee establish common ground

Repetitions allow the current speaker to ratify what the previous speaker proposed

Repetitions mark the uptake of information about words (or relation among words) offered by the previous speaker. (p. 320)

Likewise, McTear (1978, as cited in Clark, 2004) tried to distinguish between imitation and repetition. In his point of view, they can be regarded (a) as means of expressing agreement or interest, (b) as forms of verbal play, or (c) as repetition of the others' questions. I would like to add some other functions as suggestions to above-mentioned ones:

repetition to enhance their memory

repetition to reach self-correction

repetition to achieve fluency

repetition to show dislike, surprise, and sometimes unanimity

Another sort of social strategy is perhaps what we call attention-getting strategies which are not only peculiar to children but also to adults as well. Crying, smiling, and gestures of any sort (e.g. facial, body, and deictic) are among the strategies children use to direct or divert the attention of the others.

The last social strategy is the physical stance. Physical stance is the place the child prefers to be placed. The first clark (2003) continues saying that what Chomsky overlooked is socioling listic factors the child is willing to stay is his/her mother's arms, growing up little by little children sometimes prefer to be with

others or spend their with a person in another location, in all, they go to the society to which we all belong. No one can live in isolation and no one at home reaches the level of language competence that adults bearing — the Venturing out into society. In general speakers have control over a variety of different ways of taking — the way they would be control over a variety of their society. In general speakers have control over a variety of different ways of taking — the way they would not be control over a variety of the v the other linguistic factors which all together create language. Common to almost all these strategies and structures rall into two main categories, the conjunity view and the formating the children loweries inding a meaning to what they comprehend or produce. As such they are not solely maturational view (O'Grady 1997, as cited in Clark 2003, p. 400). Both views focus on syntax. Those taking the continuity syntax-onlented. view as the state of the state of the same notions and relations to the state of th

### 1.1. Simplification of syllable structure

## Clark (2003) states that:

When children start to talk early in their second year, it is often difficult to identify their first words. Their earliest attempts at Word production typically fall short of the adult forms. Take one-year-old's first production of the English word squirrel: ga. Upon reflection, it is easy to trace the processes that led to this simplified pronunciation. First children typically omit liquid sounds like I and r; they simplify consonant clusters, usually retaining only the stop if there is one, so in the initial cluster **skw**-, they drop both the glide **w** and the initial **s**-, keeping only the velar stop **k**; and they often voice initial stop consonants, here changing the **k**- into a **g**-. Finally, vowels in children's earliest words are typically produced with little or no narrowing of the vocal tract, as in a. in this case, we know what the target word was. But in children's earliest attempts at talking, it is often hard to discern the intended targets. (p. 101)

The first syllables that children produce are typically consonant + vowel, or **CV**. This is the only syllable type that is found in all the languages of the world; it's the "perfect syllable," so it's not surprising that children master it first. In fact, the opposite relation is probably more to the point: all languages have it because it's the easiest one to learn and to produce.

For example:

Ka vs. Cat

#### 1.2. Simplification of consonant clusters

Another very common feature of child speech is reduction of consonant clusters to a single consonant.

For example: [koz] clothes

Here the rule could be stated as "Reduce clusters to one consonant." Which consonant survives is a more complex matter, but often it will be a stop consonant (so that a liquid, nasal, or fricative is deleted). A less dramatic, but related, reduction is found in words such as **bankie** for "blanket."

In other cases, a new consonant that combines features of the adult consonants might be used.

[fln] "spin"

Here, the alveolar fricative + labial stop become a labial fricative. One child was reported to have made this change quite consistently in his speech, so the rule would be /sp/ -> [f].

#### 1.3. Assimilations

Babies will experiment with sounds, usually high pitched ones. They glide from high to low much like adult sentences, and they reduplicate sounds like 'ba-ba-ba and da-da-da', this is assimilation, another stepping stone in language acquisition. According to Clark (2003) assimilation is:

...the effect of sounds on those preceding or following them within a word or across word-boundaries; the commonest assimilation in young children's production is probably reduplication where children simply repeat the syllable they are articulating, as in [baba] for bottle, [dada] for daddy (Ingram, 1974). They may also use partial reduplication, either keeping the vowel the same across syllable (vowel harmony), as in [lidi] for little, or keeping the consonant the same (consonant harmony), as in [babi] for blanket; a third type of assimilation is to add nasality to nonnasal consonants, as in the production of [nam] for lamb, where the initial /l/ is produced /n/. (p. 115)

#### 1.4. Omission

"Children, in their early words, often omit the final consonants or even the final syllable if it is unstressed, in their early words", Clark (2003, p. 115) states. She says:

Children also find clusters of adjacent consonants difficult to pronounce and generally attempt only certain parts of them, for instance, in initial clusters with an **s** plus a stop, for example, **st-** or **sm-**, children generally produce just the stop, as in [top] for *stop* where a stop is combined with a liquid, they again produce just the stop, as in [**gok**] for *clock* and if a stop is combined with a nasal, they again focus on the stop, as in [**bup**] for *bump*; finally, where a fricative is combined with a glide, they tend to produce only the fricative, as in [**fom**] for *from* (Smith, 1973).

Early utterances are often just one syllable in length. Typically it's the stressed syllable that survives in the child's version. This syllable might be subject to other processess such as cluster simplication.

[ba]	"bottle"
[ba]	"baby"
[dæ]	"daddy"

Truncation of a word to one syllable is actually quite common in many adult languages. In English, it's how we usually make nicknames (**Sue** from Susan, **Pete** from Peter) and other shortenings (**vet** for veteran, **dis** for disrespect). Sometimes — especially at a somewhat later stage — one unstressed syllable can also be preserved. The result is generally a stressed plus an unstressed syllable, with deletion of anything else in the adult form. This structure is called a trochaic foot or a trochee: a way of organizing two syllables into a stressed + unstressed pair, found as a fundamental element in the prosody of a great many languages including English.

# [næna] — "banána"

Many languages use trochees to create shortened words as well: a smaller number of English nicknames are like this, as in *Alex* for *Alexander*. Prosodic patterns such as trochees -- but also the overall intonation of a phrase - seem to be grasped by children quite early. Before they start speaking at all, they can distinguish the basic intonation patterns of their parents' language from that of other languages.

#### 1.5. Substitution

Labov and Labov (1978) assert that some children compensate for their inability to voice stop consonants in final positions by using a nasal consonant after the stop at the same place of articulation, as in [dadn] for dad, or by combining a nasal consonant with a voiceless stop, as in [pjk] for pig; since voiced nasals like /n/ /o/ /m/ are easier to produce in final position, they seem to offer a convenient way, early on, to maintain voicing at the appropriate place of articulation (Clark & Bowerman, 1986 as cited in Clark 2003).

Another common substitution is to use a stop in place of a fricative (Ferguson 1978, Olmsted 1971, as cited in Clark, 2003), as in [tæw] for sandwic h; or occasionally the reverse: A final stop may become a fricative, as when *up* is produced as [^f] (Menn, 1971 as cited in Clark, 2003). Other common substitutions include fronting, where the child produces a consonant further forward in the mouth than the intended target, as in [ti] for *key* or [fik] for *thick*; and gliding, where children produce the glides /w/ and /y/, typically in place of the liquids /l/ and /r/, as in [wæbit] for *rabbit*.

# 1.6. Avoidance and topic change

Schwartz and Leonard (1982) carried out an experimental study with a group of one-year-olds with small vocabularies. They attempted to determine the consonantal inventories and syllable structures for each child's current words. They then constructed a set of new words (unfamiliar forms), corresponding to unfamiliar referent-object and –actions for each child such that half the words contained consonants that the child used (IN words) and half consonants that the child didn't use (OUT words). They presented the IN and OUT words equally frequently to each child in play sessions over several weeks and observed all the spontaneous productions the children made. They produced a significantly greater number of IN words during the play session, and they produced them more rapidly than OUT words. At the same time, tests of comprehension showed no difference between IN versus OUT words.

In addition to what was mentioned, avoidance is a common strategy clung to when you lack some phonological, lexical, or syntactic knowledge. Children just as adults would like to communicate. If they fail in one aspect, they will try to show their ability in other ways one of which can be avoidance of a phoneme, lexeme or structure. Even when they reach fluency passing for a near-native speaker, sometimes they avoid talking about certain issues with which they are not familiar. Therefore, it seems feasible to call both tactics to which children and adults resort as strategies.

#### 2. Discussion

All theories of first language acquisition have paved the way for coming up with logical ideas on the development of language in children despite their – sometimes biased – highly supported claims.

Throughout this paper it has been attempted to have a non-biased look on how a child develops language as a medium of communication. It is noteworthy to mention that the author is not trying to call the previously-known theories of first language acquisition under question, but look at it from another perspective.

This model begins with basic necessities of the first language acquisition going through different stages until the child passes for an appropriate adult speaker in the society. What is quite vivid in this model is that in spite of the fact that it has the children and their language development in its focus, later some strategies are considered vital in the language used by adults.

The model started with the idea of biological strategies, the first tangible ones in the hands of children to express their ideas in a primitive form. As long as behaviorism is concerned, the stimulus motivates them to have some reaction towards what they have found in the newly-stepped world. Nativists pay little attention – if any at all – to these aspects of language development. What they have in mind is the built-in language-specific device which is activated by exposure to input in the environment. However, what is missing is the role the society plays in the child language development. Social interactionists put emphasis upon this aspect saying that a child cannot develop language in a vacuum-like environment; they should be in constant contact with otherese to take the steps necessary to enhance their language-based communication. Although nativists believe that input is the component within the child's milieu of language development, they themselves underscore the poverty of access to ample input in the environment. Thus some questions still remain unanswered: What does exposure to input within the environment mean from innatists' point of view? How much input is needed for the child to go through language development? How much does it take to grasp this input from environment? Is language acquired as fast as it has been claimed? And last but not the least, aren't adults in need of input to communicate up to the end of their life, so it is not necessarily peculiar to first language development.

On the contrary, social interactionists and constructivists stressed the significance of social factors in language development. Without their presence in the society, children are not able to materialize the most important function of language, i.e., communication for which it was originally developed: communication.

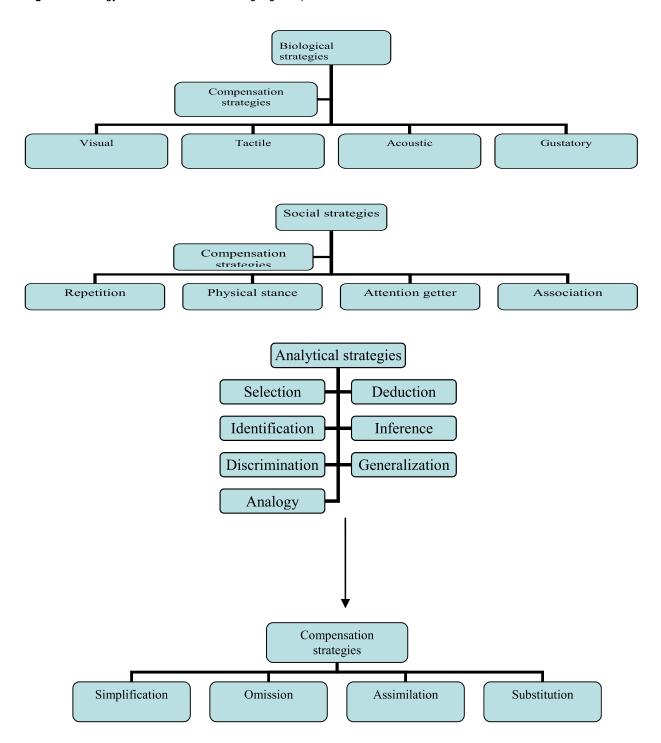
If the purpose is communication, humans need to have some strategies to resort to so as to exchange information or convey what they mean to the society of which they are a member. Analytical strategies of the model presented in this paper consider this issue showing that by stepping to the social setting there exists a number of strategies paving the ground for appropriate communication.

The model presented has taken into account many factors which is not considered anew; however, it has its own processes of development. Just as sensory development is beneficial in language development, sensory deprivation can stand on the way of child language development. Society assists children as much, if not more, as the senses they cling to deal with their basic needs. And with their mind cognitively developed by coming into contact with otherese, children infer that if they happen to find communication difficult, they can make use of compensatory strategies so as to keep the flow of communication surfing.

The question which may occupy the mind of many is the stand of compensation strategies in this model. In the course of child language development, compensation strategies are quite noticeable as they point, gaze, touch, cry, smile, and frown. This is not just the case with biological strategies, since when they enter the society with which they are not as familiar as they should, they have no choice but to use some supplements to make up for what they lack. These strategies make their way into even analytic ones when, for example, the child cannot easily differentiate the variation in color, hence, overgeneralization occurs to compensate for this inability. However, as it is illustrated in the model, compensation strategies serve as helping hands to both biological and social strategies; therefore, they act as subsidiary ones in case that child can attend to as the last resort. However this function is absent in analytical strategies. The reason can be delved into by looking at two perspectives: first of all with the cognitive development, children reach the level at which they can use many analyses to find solutions for their failure in communication so there is little room for compensation. On the other hand, adulthood does not mean that you are all the time able to tackle language appropriately due to discourse-based issues such as style, register, and formality, etc; therefore, compensation strategies come to the last act on the model to make up for the prospective communicative failures.

Compensation strategies don't die down with children passing for a competent speaker of their language. When we, as adults, cannot find the right language to communicate, we use some strategies to make ourselves understood. In a word, it is not the phonological problems which push the children to use compensatory devices to convey meaning, but it can appear in the lexical usage, structural choice, style and register and in fact discourse-based uses. Figure 1 would be the model of language development.

Figure 1. Strategy-oriented model of first language acquisition



#### 3. Conclusions

As was discussed throughout the article, most of theories of first language acquisition cannot completely account for how a child starts acquiring a language. The suggested model takes advantage of existing theories of L1 deducing a new way of explaining first language acquisition. In fact, what motivates an infant to cry is hunger, pain or something which does not exist in an adult language; crying then is a type of communication in a child's own language. As they grow up, they develop their cognition utilizing processes which result in better ways of communication via language; the more they use

their cognition, the less they resort to the basic strategies they used when they were born to get the meaning across. However, their cognition is not that much developed hence compensation strategies are always present during childhood; in social contacts, children, although successful from the beginning when they are quite capable of directing their mothers' attention to themselves to fulfill their needs, are sometimes short of right techniques to convey meaning; this is the point at which compensation strategies come to their help.

Strategies form different types of behavior a child show to attain what he needs. On the whole, the model easily shows that when children are not cognitively developed, they use some strategies of basic types; when they come into contact with people in their social environment, they learn much from others and add these strategies to their reservoirs for effective interactions in the future; steadily they try to analyze their surroundings and occurrences which sometimes are not easily understandable, therefore, they search through their reservoirs of strategies they have developed so far in order to find the best way to respond to their environment. In case they encounter difficulty using what they have in their reservoirs, they resort to compensation strategies on specific occasions to handle communication. This model is a bid to advance the notion of strategy highlighting the interconnectedness of biological, social, analytic and compensation strategies which complement each other throughout childhood, which may pass on adulthood as well. In future, further research on L1 strategies as well as case studies on different L1 contexts can pave the way for first language acquisition researchers to look at these processes more broadly considering the amalgamation of behaviorists, cognitivists, socioconstructivists' doctrines to present a model of L1 acquisition which is more logical and empirically-viable.

#### References

Baker, C. M. (2002). The atoms of language: The mind's hidden rules of grammar. New York: Basic Books.

Brown, H. D. (2000). Principles of language learning and teaching (4th ed). Longman.

Chomsky, N. (1986). Knowledge of language as a focus of inquiry: Its nature, origin, and use. New York: Praeger.

Clark, V. E. (2003). First language acquisition. Cambridge: CUP.

Cutting, E. J., & Rosner, S. B. (1974). Categories and boundaries in speech and music. Perception and Psychophysics, 16, 564-570.

Fromkin, V., Krashen, S., Curtiss D. R., & Rigler, M. (1974). The development of language in Genie: a case of language acquisition beyond the critical period. *Brain and Language* 1, 81-107.

Gould L, J., and Marler, P. (1987). Learning by instinct. Scientific American, 255 (1), 74-85.

Ingram, D. (1974). Phonological rules in young children. Journal of Child Language, 1, 49-64.

Kluender, K. R., Diehl, R. L., & Killeen, P. R. (1987). Japanese quail can learn phonetic categories. Science, 237, 1195-1197.

Kuhl, P. K., & Miller, J. D. (1975). Speech perception by chinchilla: Voiced-voiceless distinction in alveolar plosive consonants. *Science*, 190, 69-72.

Kuhl, P. K., & Padden, D. M. (1982). Enhanced discriminability at the phonetic boundaries for the voicing feature in macaques. Perception & Psychophysics, 32, 542-550.

Labov, W., & Labov, T. (1978). The phonetics of cat and mama, Language, 54, 816-852.

Lust, C. B., & Foley, C. (2004). First language acquisition: The essential readings. Blackwell Publishing.

Macnamara, J. (1982). Names for things: A study of human learning. Cambridge, MA: MIT Press.

Miller, N., Maruyama, G., Beaber, R. J., & Valone, K. (1976). Speed of speech and persuasion. *Journal of Personality and Social Psychology*, 34 (4), 615-624.

Parker, F., and Riley, K. (2005). Linguistics for non-linguists (4th ed). Allyn & Bacon.

Pinker, S. (1984). Language learnability and language development. Cambridge, MA: Harvard University Press.

Pullum, G. K. (1996). Learnability, hpyerlearning, and the poverty of the stimulus. In J. Johnson, M. L. Juge, & J. L. Moxley (Eds.), Proceedings of the 22<sup>nd</sup> annual meeting of the Berkeley Linguistic Society, Parasession on the role of learnability in grammatical theory (pp. 498-513). Berkeley, CA: Berkeley Linguistics Society.

Pullum, G. K., and Scholz, C. B. (2002). Empirical assessment of stimulus poverty argument. The linguistic Review, 19 (1-2).

Schwartz, G, R., & Leonard, B. L. (1982). Do children pick and choose? Journal of Child Language, 9, 319-336.

Slobin, D. I. (1973). Cognitive prerequisites for the development of grammar. In C. A.

Fergusen & D. I. Slobin (Eds.), Studies of child language development (pp. 175-208). New York: Holt, Rinehart & Winston.

Smith, N. V. (1973). The acquisition of phonology: A case study. Cambridge: Cambridge University Press.

Williams, M., & Burden L, R. (1997). Psychology for language teachers: A social constructivist approach. Cambridge: CUP.