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INTRODUCTION

PREVIEW

Dear learner,

Welcome to UNIT SIX in this course AN INTRODUCTION TO LINGUISTICS. It attempts to provide you with the stages of language acquisition and child development and learning. This unit is divided into five sections; each one is relevant to language acquisition. The first one introduces Language Acquisition and Disorders. The second section, discusses Language Development and Maturation. The third one reflexes some aspects of Second Language Acquisition. The forth, explores Language Disorders. Finally, section five, concludes that Errors in linguistic production are not a malfunction caused by disease.

Both exercises and self-assessment questions (SAQ) are used to ensure the necessary practice needed to reinforce the material already discussed.
UNIT OBJECTIVES

Dear Learner, by the end of this unit you should be able to:

1- investigate the relationship between brain and language
2- define language acquisition
3- explain how children acquire language
4- write about milestones and stages of language acquisition during the child’s first months and years
5- explain how parents behave towards children as far as linguistic education is concerned
6- describe the process of second language acquisition, and
7- mention the principles of language disorders
1. Language Acquisition and Disorders

Dear learner, let’s think of how language is acquired. Is it an easy task to acquire a language? Are there any difficulties to acquire a language? What type of difficulties? Now let’s say something about language acquisition and disorders.

Apart from the general historical development of languages, there is another, rather personal development in each of us when we acquire a language. We undergo child language acquisition, development, and maturation. We acquire second, third, fourth or even more languages in school or when we travel abroad. Another feature of personal linguistic developments are language disorders due to malfunctions of certain areas of the brain. In this unit, we will examine some of the findings of Neurolinguistics. This branch of linguistics investigates the relationship between brain and language.

Sub-chapters are:

1.1 Child Language Acquisition

Dear learner, try to the growth of a child in your family; the record of the stages at which that child practices a way of expressing him/her, (its) self. You will discover that children have to learn language from scratch, although the capability to speak is inherent in everyone. There are certain milestones and stages of language acquisition during the child's first months and years.

a-Milestones

I: 0-8 weeks. Children of this age are only capable of reflexive crying. We also call this the production of vegetative sounds.

II: 8-20 weeks. Cooing and laughter appears in the child's vocal expression.

III: 20-30 weeks. The child begins with vocal play. This includes playing with vowels (V) and consonants (C), for example: "AAAAOOOOUUUUUIII". 
IV: 25-50 weeks. **The child begins to babble.** There are two kinds of babbling, a) reduplicative babbling CVCV, e.g., "baba", and b) variegated babbling, e.g., VCV "adu".

V: 9-18 months. **The child starts to produce melodic utterances.** This means that stress and intonation are added to the sound chains uttered.

After having passed these milestones, children are, in essence, capable of pronouncing words of the natural language.

b- Stages

From this time on, children start to produce entire words. There are three stages, each designating an increasing capability to use words for communicative purposes:

1. **Single words and holophrases**
   Children may use a word to indicate things or persons, e.g., "boo" (=book), or "mama". Also, a single word is employed to refer to entire contexts.

   At this stage, "shoe" could mean "Mama has a nice shoe", "Give me my shoe" or even "I want to wear my new red shoes when we go for a walk"!

2. **The next stage is the usage of two word phrases**
   This stage is also called **telegraphic speech.** It begins around the second birthday, maybe sooner or later, depending on the child. **Examples are** "Dada gone", "cut it", "in car", "here pear". At this stage, children design the so-called pivot grammars. This means that the child has a preference for certain words as the pivotal (axis) words, implementing a variety of other words at different points in time to create phrases:
3. The child begins to form longer utterances

These utterances lack grammatical correctness at first and are perceived as, though meaningful, rather rough assemblies of utterances. Examples are "dirty hand wash it", "glasses on nose", "Daddy car coming", or even "car sleeping bed", which a boy uttered, meaning that the car was now parked in the garage.

There are many phonological and grammatical features of speech development, all of which cannot be listed here. A characteristic of children's early language is the omission of consonants at the beginning, ending, or in consonant clusters in words. Examples: "boo" instead of "book", "at" instead of "cat", or "ticker" instead of "sticker". Children learn grammatical morphemes, commonly referred to as "endings", in a certain order. They often start with the present progressive "-ing", as in "Mama talking". More complex forms, such as the contractable auxiliary be (as in "Pat's going") are learned at a later point in time.

**Exercise (1)**

Write about the stages of language acquisition
Parents from different cultures behave differently towards their children as far as linguistic education is concerned. In some areas of the world, people think that baby talk, or Motherese hems linguistic development. There are also cultures where parents talk to their children as they would do to adults), or where they do not put so much thought into how to teach their children language at all. When taking a closer look, no particular advantages or disadvantages can be found.

Children's language is creative, but rule-governed. These rules comprise the seven operating principles of children's language. These principles correspond to the essential communicative needs of a child. One main aspect in all principles is the pre-dominant use of the active voice, as the passive voice is requiring a more complex understanding of concepts.

- The instrumental principle serves to indicate the personal needs of the child. These are the "I want" phrases.
- The regulatory principle helps to demand action of somebody else: "Do that."

2. Language Development and Maturation

Parents from different cultures behave differently towards their children as far as linguistic education is concerned. In some areas of the world, people think that baby talk, or Motherese hems linguistic development. There are also cultures where parents talk to their children as they would do to adults), or where they do not put so much thought into how to teach their children language at all. When taking a closer look, no particular advantages or disadvantages can be found.

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- The regulatory principle helps to demand action of somebody else: "Do that."
"Hello" is the utterance - among others - which represents the interact-ional principle. It is very important for establishing contact.

The personal principle carries the expressive function. "Here I come" is a proper substitution for many phrases.

The heuristic "Tell me why"-principle is very important because once the child is able to form questions, language helps in the general learning process.

The imaginative principle comes in when the child wants to impart his or her dreams or phantasies. It is also what applies when the child pretends.

Information is also important for children's communication. To tell others about their own experience soon becomes important.

Another major step in language development is taken when the child learns how to write. Again, there are several stages:

- **Preparatory. Age approx. 4-6 years.** The child acquires the necessary motorical skills. Also, the principles of spelling are learned.

- **Consolidation. Age approx. 7 years**
  When the child begins to write, its writing reflects its spoken language. This does not only refer to the transcription of phonetic characteristics, but also to word order and sentence structure.

- **Differentiation. Age approx. 9 years**
  Writing now begins to diverge from spoken language; it becomes experimental. This means that the writing of the child does not have to reflect speech. The child learns to use writing freely and sets out to experiment with it.

- **Integration. Age approx. mid-teens**
  Around this age, children/teens develop their own style. A personal voice appears in the written language and the ability to apply writing to various purposes is acquired.
Exercise (2)

Do animals have language?

SAQs

1. How do parents from different cultures behave differently towards their children as far as linguistic education is concerned?
2. What are the seven operating principles of children’s language?
3. What is the main aspect of all these principles?
4. Write about the stages when children learn how to write?

3. Second Language Acquisition

Some aspects of second language acquisition are similar to first language acquisition. The learner has already acquired learning techniques and can reflect on how to learn best. However, learning languages depends on the personality, age, intelligence, and active learning strategies of the learner.

The learners of a second language (L2) start out with their own language, which we call source language. They are on their way to learn a target language (TL). All that lies in-between we call interlanguage. All (L2) speakers are on some stage of interlanguage. Beginners are closer to their source language (SL), experts of (L2) are closer to the target language. And if we don't continue with our studies, our interlanguage competence may even decrease. People who have lived in foreign countries for a long time are often so close to the target language that they hardly differ from native speakers. There are some features of interlanguage, which are worthwhile to
look at. They play an important role in the learning process. Everybody experiences their effects in language learning.

- **Fossilization**
  At a certain stage the learner ceases to learn new aspects of the (TL). Although perhaps capable to express herself in a grammatically correct way, the learner here does not proceed to explore the great reservoir of language any further in order to express herself in a more refined and sophisticated manner.

- **Regression**
  The learner fails to express herself in some areas: (phraseology, style or vocabulary) that he or she had mastered at an earlier point in time.

- **Overgeneralization**
  The learner searches for a logical grammar of the (TL) that would cover every aspect of the language, or seeks to find every aspect of existing grammars confirmed in the living language. In doing so, the learner draws on aspects of the target language already earned and overuses them.

- **Over elaboration**
  The learner wants to apply complex theoretical structures to contexts that may call for simpler expression.

- **Interference from (L1) or (L3),**
  with phonological interference beings the most common example. Syntactic interference and semantic interference are also possible, e.g., ‘so-called false friends’. These are words that exist in the source language as well as in the target language. However, their meaning or use might differ substantially, as in the German "Figur" vs the French "figure" (="face"), or the English "eventually" vs the German "eventuell" (="possibly").

- **Variable input.**
  This refers to the quality of education in the (TL), the variety and extent of exposure to the (TL) and the communicative value of it to the learner. This is why the design of learning
material and contact with many (TL) native speakers plays a vital role in learning a new language.

- **Organic and/or cumulative growth**
  There can be unstructured, widely dispersed input which is not always predictable. This is structured by the learner in progressive building blocks.

**Exercise (3)**

| What helps in learning a language? |

**4. Language Disorders**

The principle language disorders are aphasia, anomia, dyslexia, and dysgraphia. Usually, language disorders are caused by injuries or malfunctions of the brain. Neurologists were able to locate those areas of the brain that play a central role in language production and comprehension by examining patients whose brains had suffered damages in certain areas.

**4.1 Aphasia**

This is a disorder in the ability to process or produce spoken language. Two scientists, Broca and Wernicke, were able to locate two areas of the brain responsible for these activities.

**Broca's area.** In 1864 the French surgeon Broca was able to locate a small part of the brain, somewhat behind our left temple. This area is responsible for the organization of language production. If it is damaged, the patient usually knows what (s) he wants to say but can't organize the syntax. More nouns than verbs are used. There is hesitant speech and poor articulation. Comprehension and processing are usually not impaired.

**Wernicke's area.** Carl Wernicke identified another type of aphasia in 1874. He located a part of the brain behind the left ear
where he found comprehension of language to take place. Speech production and syntax are generally possible with Wernicke's patients. However, comprehension and, also to some extent, production is impaired, and patients show the tendency to retrieve only general nouns and nonsense words from their mental lexicon and to lose specific lexis, or vocabulary. They do not seem to be aware of their problem and, thus, do not react to treatment easily.

Both Broca's and Wernicke's areas are located in the left half of the brain. The executive centers, however, are located in the right hemisphere. A separation of the two halves of the brain effects the capability of converting linguistic information into action, or vice versa. Apart from the types of aphasia identified by Broca and Wernicke, there are also other kinds of aphasia.

**Jargon**

In "neologistic jargon aphasia", patients can only produce new approximations of content words (nouns), they will never hit the exact word. In general, messages are hard to understand and often completely incomprehensible or not decodable by listeners, although the speakers have good syntax.

**Conduction**

Patients understand what is being said to them, however, they are unable to repeat single words and make other errors when speaking. However, they are aware of their errors. In this kind of aphasia, it is neither Broca's nor Wernicke's area that is damaged, but the connection between them.

**Intranscortical aphasia**

There is a weakness in comprehension. The best-preserved feature is the ability to repeat heard phrases. Therefore, the processing of language is impaired, but the patient is able to hear and pronounce the acoustic chain.

**Global aphasia**

It has the worst effects on the patient. All language abilities are seriously impaired in this case. Both Wernicke's and Broca's areas are damaged.
4.2 Anomia

Anomia is the loss of access to certain parts of the lexis. Anomia patients are unable to remember the names of things, people, or places. There is often a confusion between semantically related words. Undoubtedly, you will have experienced this phenomenon yourself! We are all prone to it at times. It usually increases with age, although pure anomia is a much more acute state and is not related to aging.

4.3 Dyslexia

This is a disorder of reading where the patient is not capable to recognize the correct word order. Patients also tend to misplace syllables. There is also an overgeneralization of the relation between printed words and their sound value. For example, a patient may transport the pronunciation of "cave" = /kɛɜː/ to "have" = */hɛə/ instead of /hæv/.

4.4 Dysgraphia

Dysgraphia is a disorder of writing, mainly spelling. Patients are not able to find the correct graphemes when putting their speech into writing. Also, they are not able to select the correct order of graphemes from a choice of possible representations.

5. Errors

Errors in linguistic production are not a malfunction caused by disease. They occur frequently and are part of the communication process. Here are examples of the usual types of errors made:

Anticipation. Sounds appear in words before their intended pronunciation: take my bike \(\Rightarrow\) bake my bike. This error reveals that further utterances were already planned while speaking.
**Preservation.** In preservation errors, the opposite is the case. Sounds are "kept in mind" and re-appear in the wrong place:
pulled a tantrum $\rightarrow$ pulled a pantrum

**Reversals** (Spoonerisms) are errors where sounds are mixed up within words or phrases:
harpsichord $\rightarrow$ carpsihord

Blends occur when two words are combined and parts of both appear in the new, wrong word:
grizzly + ghastly $\rightarrow$ grastly

**Word substitution** gives us insight into the mental lexicon of the speaker. These words are usually linked semantically. Give me the orange. $\rightarrow$ Give me the apple.

Errors on a higher level occur when the structural rules of language above the level of pronunciation influence production. In the below example, the past tense of "dated" is overused. The speaker "conjugates" the following noun according to the grammatical rules of "shrink-shrank-shrunk":
Rosa always dated shrinks $\rightarrow$ Rosa always dated shranks.

Phonological errors are the mixing up of voiced and unvoiced sounds:
Terry and Julia $\rightarrow$ Derry and Chulia

**Force of habit** accounts for the wrong application of an element that had been used before in similar contexts. For example, in a television broadcast by BBC, the reporter first spoke about studios at Oxford university. When he then changed the topic to a student who had disappeared from the same town he said: "The discovery of the missing Oxford studio" instead of "The discovery of a missing Oxford student."

**The knowledge** of language can be divided in various ways. One way is to separate out the various components of the knowledge, as this course is divided, into knowledge of sounds, words and sentences. We can then explore what children learn about language in each of those areas, and we will do that below.
We can also relate the acquisition of language to other areas of child development and learning, and compare how language is acquired to how other skills are acquired.

The general finding is that children do NOT acquire language through imitation, reinforcement, analogy or motherese.

**Theory**

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<th>Empirical Problem</th>
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<td>Imitation</td>
<td>Children create novel forms, e.g. &quot;holded&quot;, which they have never heard.</td>
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<tr>
<td>Reinforcement</td>
<td>Parents correct for truth, not grammar.</td>
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<tr>
<td>Analogy</td>
<td>Which analogies work? Which don't? Too vague.</td>
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<tr>
<td>Motherese</td>
<td>Other cultures don't have motherese.</td>
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Rather, children **construct** grammars of particular languages by making choices from a set of options available to them. This set of options is known as **Universal Grammar**. That is, they choose the fundamental elements and the rules of combination for their language. We can characterise what they learn about sounds, words and sentences by looking at what they know about the elements and rules of combination in each area.

**Stages of Language Acquisition.**

**Pre-babbling.**

**Activity**

Errors in linguistic production are not a malfunction caused by disease. Discuss this statement with your colleagues.

It is difficult to test children when they are first born. We can measure their interest in speech sounds by measuring their sucking rate. By doing this, we have discovered that they come pre-equipped to head phonetic contrasts even for languages not spoken around
them. We now know that tuning into their ambient language begins at about 10 to 12 months, at which time they begin to fail to distinguish contrasts not found in their ambient language. That is, they seem to be discovering phonemes at this point.

**Babbling**

Even deaf children babble. They seem to be testing out their vocal apparatus, and perhaps tuning the articulation to their own audition. Babbling initially follows statistics closely, with the most common cross-linguistic sounds and patterns babbled the most. But later on, they babble less common sounds, even sounds not present in their ambient language environment.

**Holophrasictc**

At this stage utterances are one word long, though they often contain complex messages. Children have been shown to understand differences in word order at this stage even though they can't produce sentences with different word orders.

**Two-word stage**

Most children go through a stage where sentences seem to be limited to two words. There can be a large variety of two-word patterns, however, and the sentences continue to encode much more complex meanings.

**Everything else**

After the two-word stage there is an explosion in the child's capacity to form sentences, and developmental patterns are more difficult to describe. At this point it is better to simply test particular aspects and constructions from adult grammars to determine which aspects the children have acquired.

**Do animals have language?**

Animals communicate. But they don't seem to have communication systems like human language. Their communication
systems lack recursion, and, thus, cannot create an infinite number of expressions from a set of elements and rules of combination.

**What helps in learning a language?**

Being human. The language faculty seems to be unique to humans. So language acquisition is easy for us: we're pre-programmed to do it.

**A sign of rule-based learning**

Children often over-generalize a rule, applying it to cases where it is not used in adult grammars, e.g. "hold-ed" instead of "held". This leads to a "U-shaped curve" if we plot percent correct against time. Initially, they memorize all cases; they learn the rule and over-use it (getting words like "holded" "wrong"), then they re-learn the exceptions to the rules.

**Sounds**

As discussed above, the first year shows vast changes in the sound system. Children begin with the ability to distinguish between many different speech sounds, but by about 10 months begin to tune in to the ambient language and exclude non-contrastive distinctions.

They tend to start with combinations of sounds that are more common in the world's languages. Thus, they start with small, CV syllables. This can many words homophonous, e.g. "do" and "drew" both as [du]. Another common process is "stopping", pronouncing stops for fricatives, e.g. [top] for "soap". Unstressed vowels are also often deleted, as in [næna] for "banana". In general, their perception is better than their production, and they will often object to adult mimicry of their speech.

**Words**

Plurals are one morphological process that is learned relatively early. The "wug" test demonstrated children's use of word formation rules.
In terms of categories of words, nouns are generally learned before verbs, and content words (nouns, verbs, adjectives, ...) are generally learned before function words (auxiliaries, prepositions, ...).

They often over- or under-generalize the meanings of words, for example using "dog" to refer to all animals, or using "dog" for only their own dog.

**Sentences**

Even though children may leave out many words, the words that are present generally follow the correct word order from abbreviated phrase-structure rules.

They tend to use intonational patterns to ask questions rather than moving the words around.

**Exercise (4)**

Write about a sign of rule-based learning
Overview

Dear learner, finally, you have arrived at the last unit of the course ‘AN INTRODUCTION TO LINGUISTICS’, where you are going to cover a very important area in linguistics, which is language acquisition. I would like you to be aware of this area and to take care of the following components:

1- investigating the relationship between brain and language
2- defining language acquisition
3- explaining how children acquire language
4- writing about milestones and stages of language acquisition during the child’s first months and years
5- explaining how parents behave towards children as far as linguistic education is concerned
6- describing the process of second language acquisition, and mention the principles of language disorders.

At the end of this book please do not hesitate to write your own point of view, in order to improve this book.
ANSWERS KEY

Exercise (1)

1. Pre-babbling
   It is difficult to test children when they are first born. We can measure their interest in speech sounds by measuring their sucking rate. By doing this we have discovered that they come pre-equipped to hear phonetic contrasts even for languages not spoken around them. We now know that tuning into their ambient language begins at about 10 to 12 months, at which time they begin to fail to distinguish contrasts not found in their ambient language. That is, they seem to be discovering phonemes at this point.

2. Babbling
   Even deaf children babble. They seem to be testing out their vocal apparatus, and perhaps tuning the articulation to their own audition. Babbling initially follows statistics closely, with the most common cross-linguistic sounds and patterns babbled the most. But later on they babble less common sounds, even sounds not present in their ambient language environment.

3. Holophrastic
   At this stage, utterances are one word long, though they often contain complex messages. Children have been shown to understand differences in word order at this stage even though they can't produce sentences with different word orders.

4. Two-word stage
   Most children go through a stage where sentences seem to be limited to two words. There can be a large variety of two-word patterns, however, and the sentences continue to encode much more complex meanings.

5. Everything else
   After the two-word stage there is an explosion in the child's capacity to form sentences, and developmental patterns are more difficult to describe. At this point it is better to simply
test particular aspects and constructions from adult grammars to determine which aspects the children have acquired.

**Exercise (2)**

Animals communicate, but they don't seem to have communication systems like human language. Their communication systems lack recursion, and, thus, cannot create an infinite number of expressions from a set of elements and rules of combination.

**Exercise (3)**

Being human, the language faculty seems to be unique to humans. So language acquisition is easy for us: we're pre-programmed to do it.

**Exercise (4)**

Children often over-generalize a rule, applying it to cases where it is not used in adult grammars, e.g. "hold-ed" instead of "held".

This leads to a "U-shaped curve" if we plot percent correct against time. Initially, they memorize all cases, they learn the rule and over-use it (getting words like "holded" "wrong"), then they re-learn the exceptions to the rules.
Terms

Aphasia
This is a disorder in the ability of producing spoken language.

Anomia
Is the loss of access to certain parts of the lexis.

Dyslexia
This is a disorder of reading where the patient is not capable to recognize the correct word order.

Dysgraphia
It is a disorder of writing, mainly spelling.
REFERENCES


