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Psycholinguistics

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Introduction

The present project is a study of language acquisition in the early stages of childhood through several theories and proposals in the field of psycholinguistics. We managed to gather information about language comprehension, production from birth to when the child begins the toddler's stage with the objectives of describing and understanding the complexity of language itself, as well as the processes that have to work in the human mind and the way we, as humans, adapt and learn by nature; all of this with a theoretical framework and a real subject of study. In general, this project is intended for learning about the human mind and its capabilities for language comprehension and production through topics within linguistics and psycholinguistics.

Therefore, an essential part of the project consisted in interviewing a child and applying various activities to examine their language production and compare it to the theory we had previously analyzed. The toddler in question that we were able to interview was Maria, a young Mexican-American girl of almost three years old who is living now in Dallas, US. We used an on-line video platform for the interview for two reasons, the first and most evident being the distance between us and the subject of study, besides the pandemic situation that we had to overcome at the beginning of the project.

Indeed, Maria's family was extremely kind and helpful to gather the materials and help us to make proper use of the platform we used in order to complete the activities. Nonetheless, they also helped us to get to know the girl before the day of the video-call. We

learned about her individual hobbies, likes and dislikes and her most relevant linguistic mistakes or progress so far.

In fact, when the interview took place, we took the time to segment different activities, questions, and games so she could feel comfortable and speak with us while we took notes about her linguistic abilities and identified unexpected patterns in her speech. The interview and activities that we completed were transcribed for analysis purposes and were included in this paper; some fragments were used to exemplify the concepts or processes we discuss throughout the chapters. The intention was to have a positive interaction with the toddler and be able to speak with her as if it were a real-life normal situation, that is, to be able to gather as much information about her speech as possible.

Chapter one consists of a thorough description of the most important fields of study that have any involvement in our research: linguistics, psycholinguistics, and neurolinguistics. For instance, Aronoff (2001) in describing Chomsky's perspective on what the linguistics field is, its purpose and the multiple subcategories such as psycholinguistics. Purba (2018) was one of the main sources for the basic description of psycholinguistics while Ahlsen (2006) described the human brain, its parts, functions and how these relate to different processes of language acquisition and production.

Following that, chapter two focuses on the acquisition of sounds, in particular Brown's (2006) theory and Carrol's (1977) description of the development of first language acquisition from days after birth, passing through protosounds, babbling, telegraphic utterances until the child starts localization, distinction, intonation and reaches the age of three years old and starts the conversational stage in which the grammatical rules begin to

arise. As well, we described and analyzed specific patterns of phonological advancements that Clark and Clark (1977) propose such as the phonetic segments, perception of sequences, stress and intonation, word structures and omission of final segments.

Nonetheless, chapter two is the first to include analysis of the interview with Maria since we included tables that exemplify her use of stress and intonation and some common mistakes of kids her age such as the omission of final segments, reduction of consonant clusters, reduplication, and omission of unstressed syllables. These mistakes allow us to see how the toddler is starting to use language in ways that make sense to her as she is still in the early stages of production.

Chapter three advances to an important subject previously mentioned, grammar. In this part of the paper, we include the information that Carrol (2008) provides about early grammar competence, the acquisition of grammatical categories and the MLU (Mean Length Utterance) which allowed us to quantify Maria's performance during the interview. Nonetheless, another important part of speech deals with meaning and the semantic relation in young children's speech. We analyzed Maria's speech through the semantic perspective and compared it with mature speakers' utterances.

Furthermore, chapter four is a follow-up to the last topic, which is the acquisition of meaning; we integrated Clark and Clark's (1977) theory to the information we previously studied from Carrol (2008) to describe the way children understand and convey language as well as the mistakes or confusion that happens in these early stages. In fact, we analyzed Maria's performance in specific activities that involved close-ended questions to see if her answers demonstrate a good understanding of the meaning of words.

At last, chapter five is about discourse competence; this part of the paper is a more extended and generalized perspective of speech, taking a look at children's language production and how it functions for the toddler's intentions. Halliday (1975) proposed a theory about the models of language in early production that we used for the analysis of the interview.

Chapter 1 Psycholinguistics

Introduction

"Language serves a central role in our daily lives. Language is everywhere in human society, across every culture" (Wind, 2011, p. 9) Language is the base of what we do every day, communicate with each other. Through the years, we have evolved in many ways and so has language; As Aronnoff and Miller (2001) state in their book, language as a defining characteristic of humankind and human nature allow scholars to learn about human nature. Therefore, it is important to study every aspect about it and how human beings interact with each other in different contexts through different stages of their lives; we have begun this study with the objective of developing a more profound and personal understanding of language.

This first chapter consists of a descriptional explanation of three important fields of study that will guide and help us to understand the complexities of language itself and the study of language production and comprehension. We gathered information on linguistics, psycholinguistics as well as neurolinguistics to understand not only the meaning of each one as a field of study, science or discipline but also their most important elements or sub-disciplines, their importance on our society and the discoveries that they have provided which form part of the theory and knowledge we have about the phenomenon of language.

Linguistics

Linguistics is the scientific study of language. Human language, understood as a systematic use of speech sounds, signs, and written symbols for communication among people, is a very complicated system, which can be analyzed on different levels and from various points of view. This field of study is a very broad and complex subject that has been debated for a long time and became one of the most successful social sciences; Modern linguists often adopt different perspectives on language depending on the goals of their research.

It is common to distinguish between language as an individual act of speaking or writing in a particular context at a given moment or in a certain social context, and language as the abstract linguistic system underlying the linguistic behavior of a whole community of speakers. Linguists view their field as a science, therefore, it is regarded as the scientific study of language that intends to understand and analyze human language, one of the most complex aspects of human behavior that scholars have studied for centuries (Aronoff, 2001).

In addition, Noam Chomsky (as cited by Aronoff, 2001), one of the most influential linguists that has challenged the conception of this field of study, believes that linguistics is the study of language that aims to determine characteristics which all languages have in common, so to speak, the universal properties of human language, as well, this science aims to analyze and understand the knowledge of language that a speaker (mostly, native speakers of a language) has in their mind and finally, establish a theory of human language that encompasses all of this information.

Furthermore, Arnoff (2001) describes how the field of linguistics is traditionally divided in various sub disciplines that study the most structured or evident aspects of language, linguists have developed multiple areas of study to comprehend the way that language affects humankind, for example, pragmatics which studies the processes in which language conveys information through discourse and derives in the area of sociolinguistics, which analyzes the way language interacts with society and its repercussions. Furthermore, there are many areas of inquiry that have been developed in recent years from the expansion of applied linguistics such as language teaching, neurolinguistics, computational linguistics, and different subjects of study such as language acquisition, multilingualism, sign language and many more. (Arnoff, 2001) In addition, a number of separate, though often closely interrelated, branches of linguistics can be distinguished. These are described in the following list:

- General or theoretical linguistics tries to determine universal principles for studying languages and to describe the general features of language.
- Contrastive linguistics concentrates upon the differences between languages. Its findings are often applied in the context of language teaching.
- Comparative linguistics studies different languages looking for similar characteristics. These languages may have common historical origin though the main emphasis of the analysis is usually placed on the structural correspondences between languages under investigation.
- Historical linguistics analyses the development of language in time, registering the changes that have taken place in it.

- Applied linguistics is concerned with the application of linguistic theories and their findings in solving various language problems, mostly in the teaching of foreign languages, studying language disorders, in translation, lexicography, and stylistics.
- Sociolinguistics studies the relationship between language and society, taking into consideration standard and non-standard forms of language, regional and social varieties with reference to such concepts as ethnicity, social status, sex, age, etc.
- Psycholinguistics is a branch of linguistics which studies the relationship between linguistic behavior and the mental processes. It is interested in how mental processes influence the production and perception of speech.
- Computational linguistics uses computer techniques and applies them in automatic translation and speech analysis using corpora for large-scale statistical investigation and computational processing of spoken and written texts.
- Developmental linguistics is concerned with the study of the acquisition of language by children, describing the stages and patterns of development and explaining the typical features and variations.
- Anthropological linguistics studies language variation and usage in relation to culture. Emphasis is often placed on the analysis of the so-called non-Western languages.

The above-mentioned branches do not exhaust all the approaches to language that can be distinguished in modern linguistics, which is a vigorously developing science.

Linguistics is a study aimed at learning to read, write, and speak a particular language. Linguistics is the study of language, how it works, how it is learned, and how people use it for communication. Linguists can often speak with interest in different

languages, but linguists know more about how languages work than their ability to speak and understand multiple languages. Each language is like a unique species, it has a unique way of constructing words, phrases, and sentences to capture the unique conceptualization of the world and convey ideas.

Linguistics is important because it helps us understand the human mind, and it is clear why it is important. The better you understand the differences between languages, the more pieces of the puzzle the big picture of how languages generally work, and the better you can understand how your brain works. It has an interdisciplinary application.

By comparing words and structures in different languages, we can better understand the world in which we live. This knowledge not only helps us understand the complexity of the world's languages, but also improves communication between people, contributes to translational activities, helps improve literacy, and helps treat language disorders, and of course, language training is also useful for language learning and learning. Language defines who we are because we record how we perceive and interact with the world around us.

Psycholinguistics

Psycholinguistics can be defined as the study of the knowledge and cognitive processes of the brain which involve the creation and expression of meaning (production), then, the ability of understanding language in the written and spoken form (perception) and the process of learning a language, whether it is a native language or a second language (acquisition) (Purba, 2018). The study of psycholinguistics analyzes the cognitive process

that allows the production of grammatically correct and meaningful sentences from vocabulary.

The origin of studies of the relationship between behavior and cognitive characteristics of those who use language seem to be the origin of psycholinguistics. It also can be explained as how the human mind constructs a thought and applies it into language. grammatical structure in relation to the processes that allow comprehension. The goal of psycholinguistics as a field is to formulate a complete model that can describe the mental process of language development, use and breakdowns.

Psycholinguistics is the study of construction and comprehension of meaningful language. It examines the mental activity necessary for language production. It studies how words and syntactic structures are used to make sense. According to Clark (Clark & Clark 1977) Psycholinguistics deals with comprehension, production and acquisition of language. Mental processes involved in listening, speaking, remembering and learning are of central importance.

As language is a complex phenomenon, psycholinguistics, besides psychology and linguistics, penetrates into cognitive sciences and into a variety of other fields such as Language learning, sentence structure, morphology, semantics, sounds and numerous other language aspects are studied in psycholinguistics. Benefitting from technological advances, Psycholinguistics, like many other disciplines, is exploring the brain during language acquisition.

According to Purba (2018) , the field of psycholinguistics is useful to language teaching, this is called the “psycholinguistics approach” since the theories about

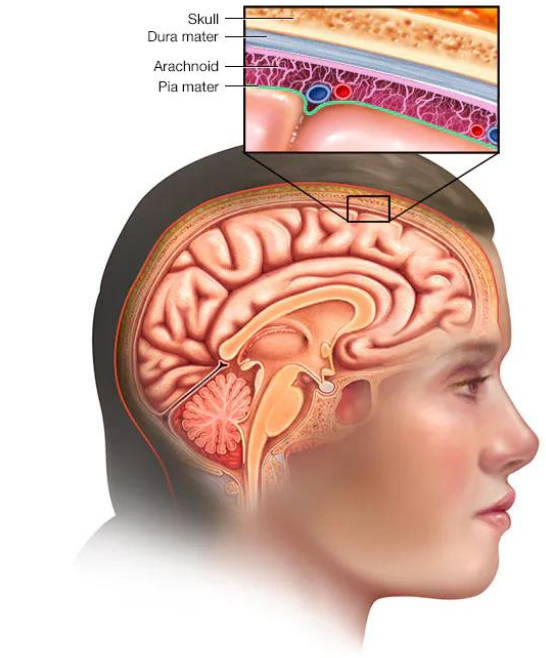
psychology and language are used in developing language teaching methods in which language and thought are analyzed as independent phenomena to explain the application of language. In addition, developmental psycholinguistics are important in the development of teaching methods for second language learners in which their perception skills and cognition abilities allow the acquisition.

Furthermore, Berekat (2011) believes that psycholinguistics is a theoretical study that can be applied to practical benefits such as the research of language development in children of all ages, the criteria to diagnose and treat any language impairment or disorder like stammering, aphasia and even the consequences of brain injury in adults. Furthermore, this field is also relevant because of the research findings that can have pedagogical applications in teaching any skill (production, reading, writing) of a second language.

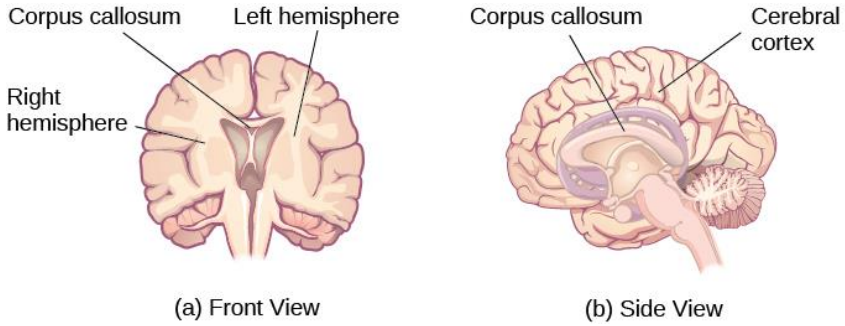
Neurolinguistics

Neurolinguistics is a branch of cognitive neurosciences that is dedicated to the study of the relationship between the brain and language processes, that is, the organization of the elements inside the brain that allow for human language as we know it today. According to Ahlsen (2006) this science studies the unconscious normal processes of language production, comprehension, reading and writing; since human language by itself is a representational system that joins different language areas despite their complexity, studies about neurolinguistics and neuroimaging provide data about the neural structures in human language. Furthermore, the study of neurolinguistics is divided in two central areas, the study of language acquisition / processing and the second, language impairment or brain damage and its consequences on language production.

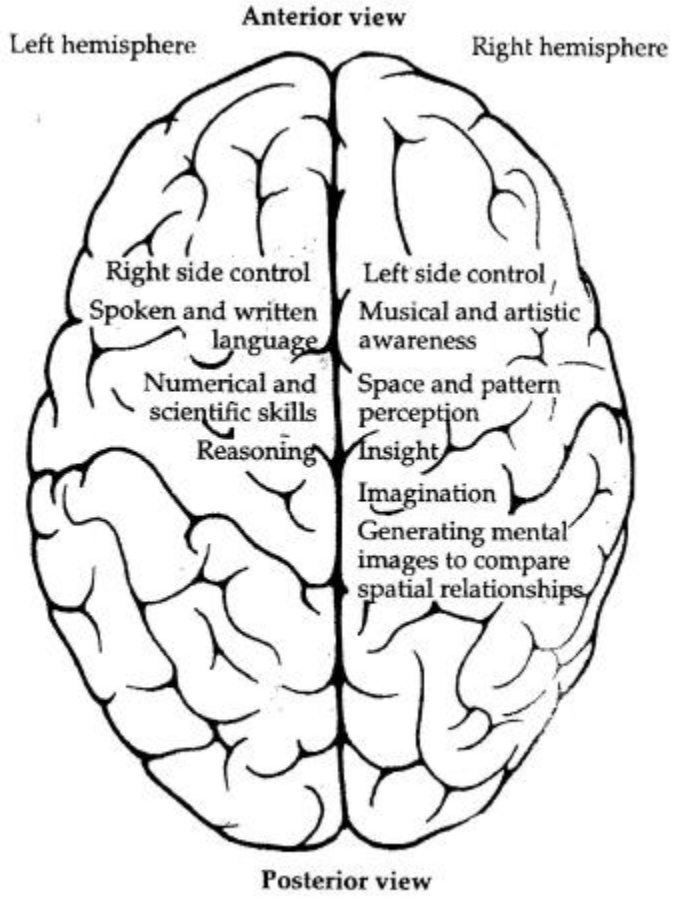
To understand the relationship between the brain and language production we have to connect all concepts that are related to cognition (speech, hearing, vision, motor coordination, memory, and others) that derive from the functions of physical elements in our brains.. First of all, the brain is a central organ that is encapsulated by the skull or cranium, the uppermost portion of the human skeleton and the scalp, a soft tissue that functions as a protection of the ´dura mater´, the main organ.



The cerebrum itself is divided in two cerebral hemispheres (right and left, respectively), these come out of the brain stem through a connection with the spinal cord. The hemispheres communicate with another through the corpus callosum, a bundle of nerve fibers that deals with higher brain functions; it is the principal coordinator of brain processes. (Ahlsen, 2006)

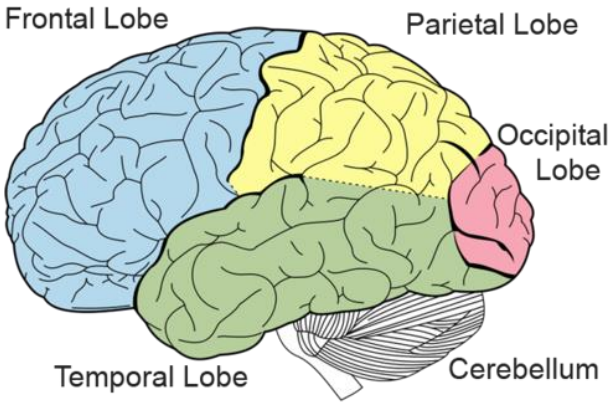


Even though the hemispheres are part of a whole system each side has specialized structures and functions, a phenomenon which is known as lateralization. For instance, the left hemisphere controls the right side of the body and contains our numerical and scientific skills. One could say that the left part of the brain is related to logic, even language production and reasoning are part of its functions. In contrast, the right hemisphere controls the left side of the body, our spatial perception, imagination and even artistic (visual and musical) awareness, so to speak, the right side of the brain is in touch with our creative and imaginative side. (Steinberg and Sciarini, 2006).



2 Lateralized hemispheric functioning

Furthermore, Steinberg and Sciarini (2006) state that the hemispheres are divided into sections called lobes which divide into frontal, parietal, temporal, and occipital lobe.



Generally speaking, Ahlsen (2006) states that the frontal lobe is in charge of higher cognitive functions and is positioned right behind the forehead, therefore its name, since it's in front of the cerebral cortex itself. The frontal lobe's anterior part, named the prefrontal cortex, is responsible for the articulation of speech (Broca's area), selective attention, planning, organizing, and problem solving. In addition, the back section (in which we find the premotor cortex) is in charge of storing motor patterns, voluntary activities, and voluntary movement. Behind the frontal lobe we find the parietal lobe which protects the central sulcus, the primary sensory cortex which stores information about taste, touch, temperature and even written language. Hence, the parietal lobe is in charge of processing and differentiating sensory input and body orientation, these skills are essential to decode written language.

The occipital lobe is located behind the parietal, this constitutes the primary visual cortex, finally, the temporal lobe is hidden under the parietal and frontal lobes (separated from them by the lateral Sylvan fissure), this component receives and processes sound information directly from our ears because it's the host of the primary auditory cortex and Wernicke's area. Furthermore, this area is connected with language decoding since it receives different types of language inputs. As well, the temporal lobe processes music and memories that contain sensations such as sight, touch, sound, and taste.

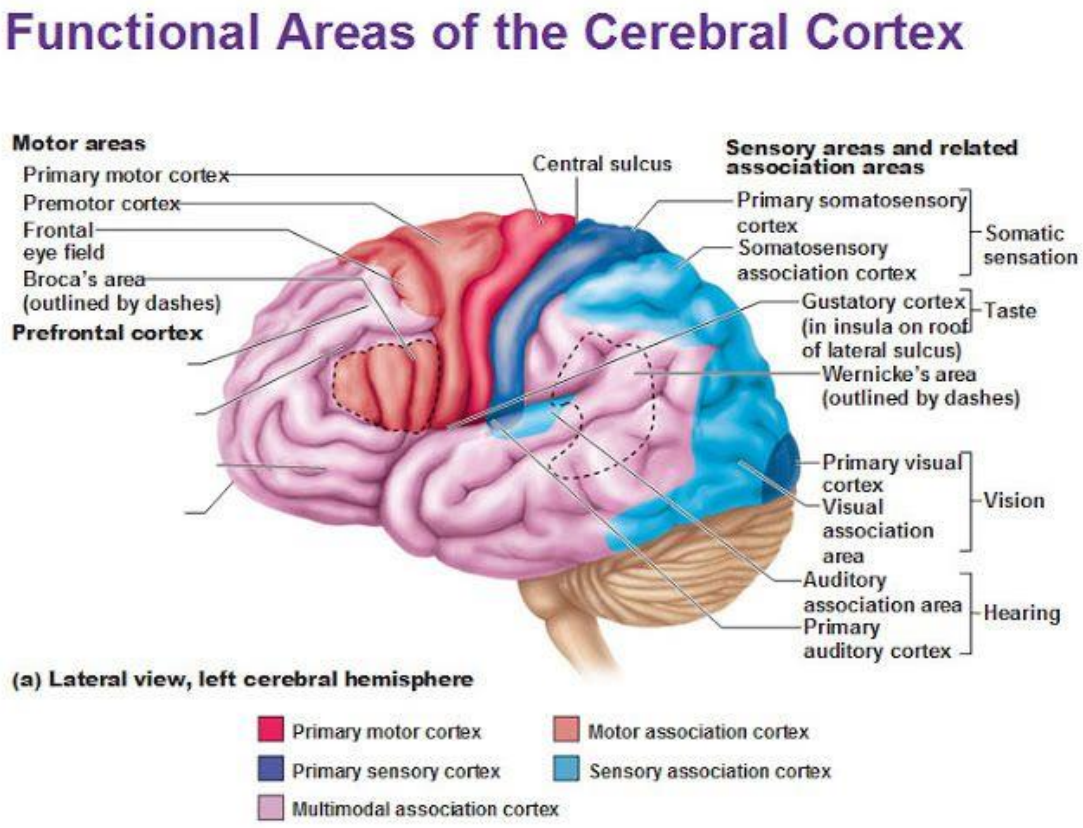
When it comes to speech production and understanding, both Broca and Wernicke's area are key in the process. Starting with Broca's area, it is the area of the brain responsible for the production of speech and it is attributed for a human's ability to articulate words and use them accordingly both in written and spoken language. Speech is first formulated in the

area, and through the arcuate fasciculus, it makes its way to the adjacent motor area where it is then articulated and vocalized. (Lorain & Gjerlow, 2001).

As for Wernicke's area, it is in charge of speech understanding. It was originally hypothesized that due to its proximity to brain areas controlling articulators of speech, it must somehow be connected to the auditory area, to which later research proved to be true since those areas are in fact connected by fibers of the arcuate fasciculus.

Speech defects are mostly attributed to Broca's area since it is the one in charge of speech production. Brain damage to Broca's area may lead to Broca's or expressive aphasia, which involves the partial loss of the ability to produce spoken and written speech. Stuttering also has a correlation with Broca's area.

According to the UCSF (2022), other forms of speech and language disorders include Global Aphasia, in which there is damage to both Broca's and Wernicke's area, compromising all aspects of language and speech; Logopenic Primary Progressive Aphasia (lvPPA), where there is degeneration of the angular gyrus resulting in symptoms such as slowed speech or impaired comprehension of sentence syntax; Primary Progressive Aphasia (PPA), where degeneration occurs in parts of the brain controlling language and speech; and Wernicke's Aphasia, in which damage to this area significantly affect speech comprehension.



According to Lise Menn (n.d.) this branch of linguistics helps to understand how the brain makes human language possible and explains why it is different from that of other animals. As well as that, neurolinguistics is in charge of understanding the process of disorders of speech, language, and reading; for instance, dyslexia.

Without this field there wouldn't exist techniques to help people with disorders of speech, hence neurolinguistics is important to provide to a part of our society a better lifestyle. The constant research develops the resources to understand language and its relation with the brain, as the benefits humans get for it.

Conclusion

It is important to take into consideration that every human being develops its cognition in a different and unique way, which leads them to create their own manners to communicate with each other. As translators and teachers, the main challenge that we face is the duality of what we know and what we will learn, specifically those subjects that involve the contrast between two or more language systems. Without a doubt, Linguistics is the key that helps us to understand the variety and structure of language. For example, if you want to comprehend what a simple sound can mean, Phonetics can guide you, if you want to know why a sentence was formed the way it was, Grammar is the extension that can explain the rules behind any structure.

Undoubtedly, we start to learn language from a very young age and as we grow up our skills improve without even noticing it. Our brain is amazingly capable of retaining and processing a lot of information that shapes our formation as speakers and gives us an identity through our competency to make discourses. It also has a great impact in how we perceive the world; for translators it is important to contemplate the difference between meanings in order to choose the most accurate equivalence and the fact that a simple word can determine the whole theme of a text, as well as for teachers the knowledge of decodification and codification processes play a crucial role in how to express themselves.

All things considered, the language can be studied in different fields to understand it deeply. Language is more than grammatical structures, or sounds, there is more behind it and linguists are in charge of discovering it. The mind and human brain do teamwork to produce words and sounds, therefore linguistics included neuroscience in its field.

Chapter 2 Acquisition of Sounds

Introduction

In this second chapter we will learn more about the process in which children acquire or learn language and how they manage to improve their abilities in order to communicate.

As Ambridge (2015) describes, first language acquisition is associated with the unconscious learning of the native language (or multiple languages if the child is raised in a bilingual situation) during the first 6-7 years of life (approximately from origin until the person goes to school). First language acquisition is related to how children learn their mother tongue, in contrast, where buying a second language means learning another language or languages in addition to your mother tongue; language acquisition is a process that can happen at any point in life.

Additionally, Ambridge (2015) provides some specifications about first language acquisition:

- It's instinctual. In a technical sense it is activated from birth and goes its own way, although, of course, the linguistic contribution of the field is necessary for the infant to master a specific language. As an instinct, the acquisition of language can be equated with the acquisition of binocular perspective or binaural hearing.
- It's fast. The proportion of time needed to acquire a mother tongue is rather small compared to what is required to successfully learn a second language later in life.
- Instruction is not needed. Although some non-linguists believe that mothers are important for children to learn their mother tongue, instructions from fathers or guardians are not needed, despite the psychological benefits of caring for an infant.

Furthermore, evidence suggests that learning a new language is harder as an adult than it is as a child, leading scientists to suggest that there is a 'critical period' for learning a language. However, the duration of this phase and its underlying cause are still unknown.

Another important topic that is briefly discussed in the present chapter is related to the theories surrounding a critical period in language acquisition; According to Friedmann (2015) , the critical period is a person's maturation phase, where their nervous system is primed and sensitive to the experiences of the environment. If a person does not receive adequate environmental stimuli during this period, their ability to learn new skills will be weakened, impairing many social functions in adulthood. If a child goes through a critical period without learning a language, it is highly unlikely that he will acquire native fluency in his first language.

Learning about the process of language acquisition gives us a profound insight on how young children have acquired their speaking abilities, and what this says about their development and proficiency. Therefore, language acquisition theories are a pathway for us to understand the complete process of the subject of study until the point in which we started this research project.

At last, chapter two also includes an analysis of certain fragments of the interview with the toddler that allow us to comprehend her language abilities in different areas when it comes to the pronunciation of words, her mental representation of speech and several characteristics that the theory defines about children in her age group.

First language acquisition

The process of language acquisition is very complex, it is a systematic operation and constant learning of many elements that starts the moment we are born, as Brown (2006) describes, the stages of this learning begin as babies babble, coo and cry. In these actions that seem so natural to humans they start expressing vocally and non vocally and by the end of their first year they start to attempt and imitate words or speech sounds that they've heard in their environment; these attempts at speaking mark the occurrence of their "first words", normally simple utterances.

During the first few weeks of life, babies express their feelings of hunger or discomfort by whimpering and crying. Around the second month of life, they begin to generate their first laughter associated with the expression of positive emotions. At this early stage, the sounds that babies make bear little resemblance to adult speech. First of all, these are involuntary autonomic sounds that accompany breathing, swallowing, coughing, sneezing or breathing and are not involved in the development of speech.

Between the second and third months, a new type of noise gradually begins to appear, constantly called "protosounds". Although infants do not have precise control over their pronunciation, these sounds are interesting in that they interact with language development. They remain around adult vowels such as "a", "o", or "y", and are formed in the subsequent part of the mouth when the tongue is with the soft palate, resulting in something like "gggaaaa" or "gggguuuu"… A little later, around the fourth or fifth month, boys seem to learn the ways of phonation and get used to producing long vowels by playing with changes in amplitude and intonation. Finally, during this period, between 5 and 6 months, babies have been around long enough to be able to generate what adults would identify as a syllable.

Furthermore, children begin to express telegraphic utterances at 18 months, this means that they begin to combine words in different manners. They create simple sentences that despite consisting of only two or three words they carrey specific and clear meaning, for example, “gimmie toy”. By the time they are 2 years old, children demonstrate the comprehension and ability of production of a more sophisticated language, they are capable of using their knowledge of grammatical rules in their first language to create sentences in the negative and interrogative form (Brown, 2006).

Children who are three years old become incredibly conversational. According to Brown (2006), they start conversations with peers and demonstrate an ability to use language in a creative way since they create sentences that are impossible in logical terms but correct within the constructs of language such as “erase the window”. At last, when they reach the school age they internalize complex structures, expand their lexicon and improve their communication skills; this is the point in acquisition where they learn the social function in language. That is, they realize that there are some ideas that are better not to share.

This process of acquisition may seem linear, however, many questions about the internal processes and external factors of influence in language development arise from this explanation. Hence, many theories that want to explain the first language acquisition process emerge; in this paper we’ll mention and explain three of the most important approaches according to Brown (2006), they are the behavioral, nativist and functional.

First of all, the behavioral approach focuses on the perceptible aspects of linguistic behavior such as the relationships between utterances and events in the environment. In consequence, this approach considers language to be the result of specific responses to stimuli; in this sense, children would develop their language skills as a response to positive

reinforcement. Skinner's (1956, as referenced by Brown) theory of operant conditioning related to verbal behavior explains that there are two components in the creation of habits, these are the operant (the response or utterance) and the reinforcement; in this case, children receive approval or disapproval of their caretakers and peers, this influences their decision making and frequency of usage.

Secondly, the nativist approach considers language to be an innate ability that emerges from an internalized system of language; Chomsky (1959, as referenced by Brown), an important linguist and one of the most dedicated scholars on this approach, describes our innate properties of language as a little black box in the brain, this is our language acquisition device. McNeill (1996, as referenced by Brown) describes five properties in this device, which are: the ability to distinguish speech sounds, organize linguistic data in categories, determine possibilities or impossibilities in our native language and evaluate the developing system of language.

As well, the last approach involves the creation of one of the most important theories in language acquisition, the theory of universal Grammar; this concept represent the search for the factors that influence the acquisition process regardless of language or origin based on the premise that all languages share some properties (like word order, deletion, formation of questions, and so on). In this realm, some scholars point out that children create mental grammars which form representations of grammatical structures, this is known as a pivot grammar (Brown, 2006). Nonetheless, the nativist approach is not totally accepted, several branches of linguistics deny the existence of an universal grammar; among them, PDP (Parallel Distributed Processing) believes that the development of language is not linear but a simultaneous learning process in several levels of attention.

Finally, the functional approach consists of a deeper funcional meaning that emerges from social interaction; this theory considers the importance of the social context and discourse, which includes the communicative functions of language such as interactions, performance and conversational cues. Bloom (1976, as referenced by Brown) is an important contributor to this approach, he rejects the idea that children learn superficial structures (word order) and proposes that they use the social context to learn underlying structures.

Critical Period

In the 1960s came up the idea of a critical period for language acquisition. Eric Lenneberg (1967, as cited in Saxton, 2010) stated that language emerges, between the ages of two or three years old, by interaction. However, Lenneberg's theory is wrong considering that language acquisition begins before birth. On the other hand, Saxton (2010) mentions that the critical period offset is at five years old; during those years we acquire most of the basic grammar.

Throughout the critical window, a person is primed for new abilities thanks to the brain's neuroplasticity. Connections in the brain, called synapses, are highly receptive to new experiences because they have the ability to form new pathways. The developing brain has a high level of plasticity and gradually becomes less "plastic" in adulthood.

Furthermore, the critical period can be identified by considering two approaches which Bruer (2001, as cited in Saxton, 2010) proposed. The first approach consists of giving the participants the same experience, as in quality as in duration, but at a different stage in development. The second approach recommends changing the duration of the target experience, but the starting point must be the same for all participants. Likewise,

scientists prefer to use the term sensitive period instead of critical period. The first term presents the idea of a period in which receptivity to experience increases, but gradually will decline (Immelman & Suomi, 1981, as cited in Saxton, 2010).

The deprivation of language has several effects in the development of humans; through this action it is possible to study the theory of the critical period. Sadly, there are people, known as feral or wild children, who have been deprived of normal social contact and exposure to language (Saxton, 2010). In some cases, children have been raised by animals so that the only thing they learned is to behave like them. On the other hand, these children had parents who mistreated them since their first years developing traumas.

According to Saxton (2010), the aspects of language such as phonology, lexicon, morphology and syntax have different critical periods. For instance, an adult may struggle trying to acquire a native accent when learning a new language because that phase finished when they were five years old, in other words, the critical period for phonology is over. However, feral children still can learn language but, for some of them will be more difficult than others. Deprivation, living in isolation and constant mistreatment is not conducive to good mental health and normal development.

First sounds in the Child's language

During the whole process of language acquisition, some of the most important stages are related to the acquisitions of sounds in the early years, one of the main characteristics of this period is that children perceive speeches better than they can pronounce them, even if these aspects are related children must go through different phases in order to transform their discourse as identifying the locations of a sound, distinguishing human voices, responding to the emocional quality of them, knowing which voices are

female or male, and focusing on the intonations and rhythms. Once they differentiate human voices from other sounds they will start to perceive the differences among speech sounds, which are important and work out how they are combined. They manage to do this task by building on what they already know, then they start with simple distinctions such as discriminating consonants from vowels.

According to Carroll (1977) *the Fis Phenomenon* is one of the keys to understand children's language development and it refers to the kids' capacity to understand and identify the words they cannot pronounce; another aspect that is important is the adult-based representations of the words, they take these as priority which means that the closer they get to the adult pronunciations, their speeches will improve bringing new sounds in old words and once they adapt the changes, every other word will be modified. The variability among their first pronunciations can be explained by two reasons, the first one is that they are constantly trying to match them to the adults' referents and to make themselves understood until they finally succeed.

Carroll (1977) also exposes two approaches that explain the connection between babbling and the later acquisition of average sound system; the Continuity Approach which accept the idea that babbling is the direct precursor of speech sound, this hypothesis was counter by the facts that infants produce many different sounds out of the babbling, sometimes parents are not selective with the sounds they want their kids to produce, and finally when children start to use the first words, they no longer use those sounds that were used before. By the other hand, the Discontinuity Approach states that babbling is not related to the development but even if children start to use a proper manner to speak they continue to babbling, also among these sounds there are preferences of phonetic sequences

that will symbolize meaningful words later, and they use babbling for particular forms of intonation patterns that are used for communicate requests and rejects.

Children start producing their first words with recognizable meanings around age 1 and 1 ½ and the way they master phonetic segments is closely related to the mastery of systematic contrasts found in a language. While there are different theories regarding the acquisition of sounds, Jakobson (1968) proposed a theory that is mostly focused on the acquisition of contrasts. After examining records of children acquiring different languages, he concluded that a child's mastery of sounds in their language is related to properties that all languages have in common. In particular, he determined that 1) children gradually become able to pronounce sounds by mastering the contrasts of the adult language, 2) the order in which contrasts are acquired is universal, 3) said order of acquisition is also predictable depending on how common they are in languages around the world, and 4) children elaborate their own set of contrasts and reconstruct it until it matches that found in the adult language. (Clark & Clark, 1997).

As stated by Clark & Clark (1997), Jakobson's theory also predicted that children's words tend to be simple in comparison to the words pronounced by adults. For example, a study by Winitz and Irwin (1958, as referenced by Clark & Clark) showed that from a group of 93 children of ages from 1;2 to 1;6, none of them pronounced words with a complicated beginning or ending. Children's simplification of adult words is a very consistent occurrence while they're trying to learn the adult pronunciations. In fact, N. Smith (1973, as referenced by Clark & Clark) identified four general ways in which they do so. Overall, children may omit the final segments of a word, omit unstressed syllables, reduce the consonant clusters or by reduplicating segments. The first three serve to shorten

the adult word and all four of them reduce the complexity of the consonantal structure of the word or syllable.

Some hypotheses tried to explain why children simplify words, including that children have limited memory span, limited representational ability, or limited articulation skill. These were proved to be wrong or insufficient. Some problems can also be found within Jakobson's theory, however, it can still be concluded that children have a defined goal, which is to learn how to say recognizable words. Oftentimes, young children are aware that what they say doesn't match the pronunciation of other speakers. And so, they practice and do sound play a lot (Weir,1962, as referenced by Clark &Clark). Children probably try out different hypotheses about how to produce the right segments until they finally hit appropriate articulatory programs (Ferguson & Farewell, 1975; Kiparsky & Menn, 1977, as referenced by Clark & Clark).

Age	**Characteristic**
Days after birth	● Localization of sound ● Crying sounds, Cooring
2 weeks	Distinguishes human voice from other sounds
1 month	● Discriminate between two syllables with different consonant sounds ● Discrimination in speech sounds
2 months	Recognize emotional quality in voices
4 months	Distinguishes female / male voices
5-6 months	Start of babbling, much more language like than early cries

6 months	● Pays attention to intonation and rhythm in speech ● Production of babbled sequences of sound with melody
6-8 months	Babbles with intonation like rises and falls
1 - 1 ½ years old	Produces first words with a recognizable meaning
2 years old	Most productions consist of single syllable utterances
3 years old	● Fis phenomenon appears in recognition of own pronunciations ● Representation of most words are very similar to adult representation
4 years old	● Shows evidence of knowing sequences in language ● Phonological rules for identifying a sequence of segments in their native language acquisition
5 years old	Assigns some word-stress with grammatical rules

Phonetic Segments and Sequences

Perception of Segments

Vihman, M. M., & Vihman, V. A. (2011) explained that children usually take adult words as targets that they attempt to produce and at some point they will start to differentiate the speech sounds, this progress precedes the following development of language acquisition. Schvachkin's findings in his study of the stages in children's perception of contrasts between segments in Russian showed that they first go from the simplest then to the complex ones in a systematic way. One important aspect in this research was that children only noticed the differences when the meanings were not the same and they recognize the distinctions in different order; at first he considered that this

mechanism may be the same for all as something universal but the truth is that it is almost impossible to agree due the fact that this statements should be tested not only on just one language. Edwards (1974) describes that there exists a variation in English and some kids may acquire the opposition for a pair of segments at a time instead for the whole class.

Perception of Sequences

It is clear that children are capable of perceiving and identifying different phonetic sequences at a very young age and when they combine segments into sequences it helps them to learn the phonological rules of language. The next table represents the twelve consistent stages that Schvachkin found in two year-old toddlers' acquisition of sounds on Russian, in this experiment the first distinctions presented were those from Vocal-Consonant syllables, they had no difficulties in distinguishing the vowel *[a]* from all the others, followed by the distinctions between the front, back, high, and low vowels. They also distinguished some gross oppositions as the presence and absence of initial consonants, discriminated nasals, liquids and glides from stops and fricatives and being the oppositions of voice and voiceless segments the last ones to be acquired. After children learn how to perceive the phonetic segments and sequences from the language they are acquiring, they subsequently will learn which are permissible and which are not. Messer (1967) suggests that these recognitions guide them to name things and to make predictable distortions that later will lead them to possible sequences.

Table 2.1 Phonetic Segments and Sequences

PHONOLOGICAL ACQUISITION

Stages in the acquisition of phonological oppositions for Russian children.

STAGE	OPPOSITION
1a	[a] *vs.* other vowels
1b	[i] *vs.* [u], [e] *vs.* [o], [i] *vs.* [o], [e] *vs.* [u]
1c	[i] *vs.* [e], [u] *vs.* [o]
2	Presence *vs.* absence of initial consonant, e.g., [bok] *vs.* [ok], [ek] *vs.* [vek]
3	Nasals, liquids, and glides *vs.* stops and fricatives e.g., [m] – [b], [r] – [d], [n] – [g], [y] – [v]
4	Palatalized* *vs.* non-palatalized consonants, e.g., [n′] – [n], [b′] – [b], [v′] – [v], [r′] – [r]
5a	Nasals *vs.* liquids and glides, e.g., [m] – [l], [m] – [r], [n] – [l], [n] – [r], [n] – [y], [m] – [y]
5b	Intra-nasal distinctions, e.g., [m] – [n]
5c	Intra-liquid distinctions, e.g., [l] – [r]
6	Nasals, liquids, and glides *vs.* fricatives, e.g., [m] – [z], [n] – [ž]
7	Labials *vs.* non-labials, e.g., [b] – [d], [b] – [g], [v] – [z]
8	Stops *vs.* fricatives, e.g., [b] – [v], [d] – [ž]
9	Alveolars *vs.* velars, e.g., [d] – [g], [t] – [k]
10	Voiced *vs.* voiceless, e.g., [b] – [p], [d] – [t], [g] – [k], [v] – [f], [z] – [s], [ž] – [š]
11	"Hushing" *vs.* "hissing" sibilants e.g., [ž] – [z], [š] – [s]
12	Liquids *vs.* glides, e.g., [r] – [y], [l] – [y]

* Palatalization does not occur as a distinctive opposition in English. Palatalized consonants are pronounced as if very closely followed by an *i*.

Based on Shvachkin (1973).

Intonation and Stress

Stress can be considered as the emphasis we put in certain syllables of a word. Even if children can perceive that specific change in the sound structure, it is really unlikely that they pronounce the words correctly at the first try, especially compound words.

When a syllable is stressed it will become a fundamental part of children's acquisition of language because the way they pronounce the words symbolizes a starting point in the way they will consequently form their speech and following discourses. Most of the time when an adult is trying to help in this development stage, they use this method either to make them remember the correct ways of pronunciation or to point out a mistake, once they

try to repeat the stressed patterns it will be less probable that they fail to articulate it; as Atkinson-King (1973) said, it may take some time for children to learn how to catch up the contrastive patterns. In Table 2.2. there are some representations of this statement with María's patterns.

Table 2.2. Stress

TIME	Adult-Based Representation	Child-Based Representation
4:57	Fátima	/`***fœ-tɪ-mə***/
9:46	Cheerios	/`***ʧɪ-ja-oʊs***/
14:10	Fire	/`***fa-jeər***/
20:46	Pescadito	/***pas-`ki-to***//
27:58	Tortoise	/`***tor-tos***/

These examples showed the particularity of how children memorize the emphasis in the stressed syllables according to the adult representations they take. In the first word María could easily pronounce a name without any complication and she also stressed the corresponding syllable. In the following examples there are some things different to what she did before; she mispronounced the word *Cheerios* twice, the first sound was *Hochiyos* and the second was *Cheyous* (which was later the predominant pronunciation), what's really interesting in this part is that even if she didn't produce the proper sound for this word more than once, she respected the stressed syllable of the word in both cases.

The same thing happened with *Fire* and *Tortoise*, the pronunciation changed a little but the stress was still there. When she switched to Spanish language, she understood that the word *Pescadito* was another way to call a fish but in a softer way, she omitted, mispronounced and simplified some syllables, but since *Di* is the stressed syllable in the word she produced *Ki* which is the closest sound she could repeat.

Intonation

The development of a proper intonation pattern, according to Clark and Clark (1977) refers to the child's ability to recognize different intonations (how the pitch rises and falls while saying different sentences) and identify the purpose or linguistic function of each type of intonation. Hence, this intonation can be divided into interrogative (making questions), declarative (making statements), imperative (giving orders or instructions), and exclamatory sentences (statements that denote an emotion). However, this author recognizes that several researchers consider that children in the 2-3 year old range do not possess a concrete intonation recognition and production and tend to use the wrong melodic rhythm.

In order to identify Maria's intonation patterns in the interview Table 2.3 organizes several examples of sentences that belong to each intonation pattern, alongside the sentence in its phonetic transcription to facilitate the identification of stress and the time in which the sentence

Table 2.3 Intonation

TIME	Type of Sentence	Sentence
15:08	Interrogative	***/ˈɔrəndʒ 'fa ti ma?/***
36:31	Interrogative	***'pa-pi? nat 'kʌ-mɪŋ ə bæk?/***
7:47	Declarative	***/jɛs. aɪ laɪk Peppa pɪg/***
16:14	Declarative	***/ 'fa ti ma ɪz ˈfʌni /***
34:54	Imperative	***/jɛs. ˈgɪmi ðə ˈmarkərz, ðə ˈmarkərz/***
39:27	Imperative	***/pʊt ɔn ðə rɛd tæp/***
13:07	Exclamatory	***/ðə 'spun!/***
15:47	Exclamatory	***/a! ɪt ɛs ðə blu wʌn!/***

In table 2.3 we can see how Maria's intonation and use of language covers all of the types of sentences. In the interrogative, Maria poses questions to clarify the information she gathers or perceives; for example, when asked to show her doll she asks for clarification on which doll she should bring ("Orange Fátima?") and she stresses the last part, raising her intonation in the form of a question. In the second example she asks a question about her father after being shown a picture of her family members, she asks whether he is coming back (Papi? Not coming back?) and in this example we can see that even if she doesn't use a complete question with proper grammar such as "Is dad / papi not coming back?" but her use of intonation makes it clear that she is using the interrogative form.

Furthermore, Maria used the declarative form in many occasions, we included two examples in which she expressed her own opinions or perceptions "I like Peppa Pig" or "Fátima is funny"; both of these statements came from information or visual cues she received such as a picture of her favorite cartoon character or a request to show her dolls. She said both of these statements with a basic intonation without rises or falls.

We identified some instances where Maria used the imperative, in both she was demanding things from her mother, such as passing her the markers or putting a cap on the same. She used not only the correct form of the verbs but a firm intonation with no rising that made it sound like a clear order. Finally, the girl had many instances of showing surprise, emotion, happiness and even shock but the times where she verbally expressed these kind of feelings were very few; nonetheless, we picked two instances where she showed surprise after she saw a picture of some cereal spilled on the floor next to a spoon,

which she discovered without any help and a particular sentence she shouted with emotion when she was coloring.

Representation of Words

Children's pronunciation or mispronunciation of words has a large impact on the linguistic development study, this is explained by Clark and Clark (1977) who state that the children's first words are often very different to the actual correct pronunciation (or adult pronunciation) of the same, they tend to simplify their pronunciation to match their abilities. Indeed, there are two types of representation that could explain the consequential errors of production, children may have an "adult-based representation" meaning that they perceive elements of pronunciation in adult speech but they cannot produce it yet. On the contrary, children may have a "child based representation" in which they can only distinguish sounds that they can also pronounce.

Furthermore, Clark and Clark (1977) explain that both of these representations are based on a critical factor: whether children are conscious of the words (or phonetic sounds) that they cannot pronounce correctly, and if they reject their own pronunciation in favor of the correct adult-like.

This phenomenon is known as the "fis phenomenon", because of an anecdote in which a child refused to accept the pronunciation of "fish" as "fis" even though he pronounced it incorrectly; in this, the observer said "This is your fis?" and the child denied it and repeated "my fis", this continued until the adult used the correct pronunciation "That is your fish" and the child finally accepted "Yes, my fis" (Berko and Brown, as referenced in Clark and Clark, 1977)

The following example, of Table 2.4 intends to demonstrate the existence of the fis phenomenon in the conversation with Maria; to fully develop an understanding we included a conversation in which Maria either corrects or ignores a mispronunciation of her own. Hence, the following dialogue.

Table 2.4 Representation of Words, Fis Phenomenon

TIME	P	Dialogue
	L	*What do you like?*
9:46	M	***Hochiyos.*** ***/ʧɪrioʊs/***
	L	*Can you repeat?*
10:03	M	***Cheyaous*** ***/ʧijaoʊs/***
	L	*Oh, you mean the cereal? Cheerios.*
10:12	M	***Yes, Cheyaous.*** ***/jɛs/ /ʧijaoʊs/***

In table 2.4 we included a small fragment of a conversation with Maria in which she was talking about her favorite meal, the cereal cheerios. We identified this word as something that she struggled to say, she pronounced it as "cheyaous" (*/ʧijaoʊs/)* and we tried to get her to identify the correct and incorrect pronunciations by asking her to clarify. When the person interviewing used the word correctly, saying Cheerios, she agreed and showed excitement. Therefore, we can say that Maria has an "adult-based representation" of this word, she knows how to pronounce Cheerios and recognizes when another person does it but cannot pronounce it herself.

New Sounds In Old Words, Production of Speech Sounds

According to Clark and Clark (1977), children's representation is based on adults' pronunciation of words and it can be observed during their sound system development. In the case of children who still cannot pronounce a specific sound, they will omit it but still include it in their representations. Furthermore, when children master the sound, they would be able to put it into the basis of the representation. To show that, Clark and Clark (1977) described that children who cannot pronounce [s], first will say *tick* and *top* instead of *stick* and *stop*; once they master it, this sound will be included in all words which have initial [s]. Children keep alternating between their old and new pronunciations until they find something more adult-like. Eventually, the change spreads to all the words after days, even weeks, working on that (Smith, 1973, as cited in Clark and Clark, 1977).

Indeed, children are able to perceive and store more complex forms than the ones they produce and this is demonstrated in aspects such as the "Fis" phenomenon and how they identify word meanings. Memory plays an important role in language acquisition;

children are given the model of what they must aim when speaking and work on it until they get a closer adult-like pronunciation (Clark and Clark, 1997).

At the beginning, children face limitations trying to make themselves understood. Leopold (1949) and Menn (1971) as cited in Clark and Clark (1977) illustrated this situation with some words in Table 2.5. Context and knowledge of the child are required due to the variability of pronunciation; a word can be pronounced in several ways. However, the variability decreases the closer children get to the adult representation. Once children master a sound, they correct their old pronunciation.

Table 2.5 Production of Speech Sounds

EXAMPLES FROM THE FIRST RECORDED FORMS FOR TWO CHILDREN

HILDEGARD			DANIEL		
AGE	ADULT MODEL	CHILD'S PRONUNCIATION	AGE	ADULT MODEL	CHILD'S PRONUNCIATION
0;10	*there*	[dɛi]	1;4	*byebye*	[bab]
		[dɪi]			[bæbæ]
		[de]	1;6	*hi*	[hæ]
0;11	*there*	[dɛ]			[hay]
	ticktock	[tak]	1;7	*no*	[o°o]
1;0	*ball*	[ba]			[no]
	Blumen	[bu]			[nu]
	da	[da]		*hello*	[hwow]
	papa	[pa-pa]		*squirrel*	[gæ]
	pipe	[pi]			[gow]
		[pip]	1;8	*nose*	[o]
1;1	*ball*	[ba]		*boot*	[bu]
	bimbam	[bɪ]	1;9	*light*	[ay]
	da	[da]	1;10	*car*	[gar]
	Gertrude	[dɛda]		*Stevie*	[iv]
		[dədi]		*apple*	[æp]
	kick	[ti]		*up*	[ʌf]

Based on Leopold (1949) and Menn (1971).

Infant Babbling

Wolff (1966, as cited in Clark and Clark, 1977) pointed out during the first days of life infants only make crying sounds. After that three- to five-months-olds add different types of crying in their repertoire to show their needs which is a difficulty for parents to identify them (Müller, et. al, 1974 as cited in Clark and Clark, 1977). Subsequently, babbling appears at the age of five or six months and is considered more language-like than crying. In babbling, infants combined vowels and consonants into syllable-like sequences as an example *bababa;* indeed, infants used intonation in the babbling stage. Evidently, babbling decreases once infants are able to produce their first words (Clark and Clark, 1977).

Investigators have studied whether there exists a connection between babbling and later language development, as a result, two approaches appeared. The continuity approach establishes that babbling sounds are precursors of speech sounds, on the other hand, the discontinuity approach argues that babbling has no direct relation with later development. Infants produce many sounds during babbling but later in their first words these sounds rarely appear. Jakobson (1968 as cited in Clark and Clark, 1977) explained that sounds made in the babbling stage appeared without a specific order, so this has no relation with later development.

Clark and Clark (1977) remarked that the babbling stage helps to practice in producing sequences of sounds. Consequently, the relation between babbling and later language development is an indirect one. In particular, infants gain articulatory control of certains organs located in the mouth and vocal tract. Therefore, exercising the vocal apparatus is enough to confirm the connection of babbling with language acquisition.

Mastering Segments

Before children can produce their first words correctly, they practice each segment until they get it right and go after the next one. However, there is no explanation about why children mispronounce certain words even if they have mastered the sounds. Clark and Clark (1977) illustrated this situation with the word *doggie*; the child learns to say *do* and makes a change to *dodi*, to *goggie* and finally *doggie.* The child has learned the sound [d] but, when he tries to connect it with the rest of the segments, the pronunciation changes. The hypothesis-testing theory says that adding another stop consonant to their repertoire is difficult at first when trying to produce two different stops in one word (Clark and Clark, 1977).

According to Jakobson (1968, as cited in Clark and Clark, 1977) theory, children acquire the ability to pronounce sounds once they have mastered the contrasts of adult language. Children elaborate their set of contrasts until they match with the adult language. The contrasts are learned in a consistent order, Jakobson (1968, as cited in Clark and Clark, 1977) mentioned that the first contrast that appears is between vowel and consonant in which the first vowel sound was generally a low front vowel [A] used in opposition to a consonantal sound as [P-B]. The next consonant contrast is between oral and nasal consonants, for instance, [P-B] and [M], by this stage children are able to produce sounds and words such as *ba*, *pa*, *ma*, *mama*, *papa*, and *baba*. Then, a contrast between bilabial and dental consonants appears: [P-B] contrasted with [T-D], and [M] with [N].

Regarding the vowel contrasts, the first vowel sound children usually make is [A] but the first contrast is between this sound and the closed vowel [I]. For the following contrast, children add a back rounded vowel such as [U] in *boot*. However, the vowels

added vary depending on the language children are speaking (Jakobson, 1968, as cited in Clark and Clark, 1977).

Word Structures

The author Lewis (1951, as cited in Clark and Clark, 1977) examined early words and the structures for children words were very simple: consonant + vowel (CV) and consonant + vowel reduplicated (CVCV), it confirmed Jakobson's theory prediction. Moreover, Winitz and Irwin (1958, as cited in Clark and Clark, 1977) studied the different structures that appeared in 93 children between the ages of 1;2 and 1;6 as illustrated in Table 2.6, agreeing with Lewis' observation. The words were not as complicated as the ones with initial or final clusters, indeed, children left out the final consonant, for instance, they said [da] for dog and [ha] for home. On the other hand, children's use of consonants is asymmetrical and the pronunciation of segments depends on their position in the adult representation. As an example, the segment [p] in words as *pod, tipping*, and *stop*.

Table 2.6 Word structures

WORDS AND SYLLABLES

Percentages of different syllable structure types in children's early words.

AGE	SYLLABLE STRUCTURE: CV	CVC	CVCV(C)*	CVCV†	Other
1;2	18	6	21	31	24
1;4	44	20	5	16	15
1;6	34	16	9	28	13

* Optional final consonant on a reduplicated syllable; both consonants *and* both vowels identical, e.g., **papa**, **mimi**.

† *Either* both consonants *or* both vowels are the same in CVCV structure, e.g., **gegu**, **tiki**.

Based on data from Winitz and Irwin (1958).

Table 2.7 Syllable structure

TIME	Adult-Based Representation **cv**	Example
14:33	mine	***/ma/***
23:23	far	***/fa/***
24:10	no	***/noʊ/***
TIME	**Adult-Based Representation cvc**	**Example**
07:39	pig	***/pɪg/***
13:07	mom	***/mam/***
36:09	red	***/wɛd/***
TIME	**Adult-Based Representation cvcv(c)**	**Example**
12:28	cayó	***/ka 'yo/***
10:44	vegetable	***/ˈvɛʤbəl/***
33:00	oval	***/ˈoʊpəl/***

In table 2.7 we selected a list of words to represent the word structures Maria has in her speaking. In the case of adult-based representations of consonant + vowel (CV) pronunciation, we can see that Maria left out the final consonant of some of the words and that is why they were included in that part of the table. The girl pronounced the word "mine" as /ma/ instead of /maɪn/, in the same way, she pronounced /fa/ for "far" letting out the consonant [r]. However, it was easier for Maria to correctly pronounce a word with a final vowel as in the case of "no".

Maria's pronunciation for the structure consonant + vowel + consonant (CVC) demonstrated that she can easily pronounce [g] and [m] as final consonants, for instance /mɑm/ for mom and /pɪg/ for pig. Otherwise, sometimes during the activity she struggled pronouncing the initial [r] of the word red and change it for [w] saying /wɛd/. Finally, in the case of consonant + vowel + consonant + vowel (CVCV(C)), Maria left a syllable out as [ta] in vegetable pronouncing it as /ˈvɛʤbəl/ and changed the sound [v] for [p] in the word oval.

To sum up, the initial [r] is a sound she hasn't mastered at all; Maria can pronounce it for some words which have it as an initial consonant, but in some cases she replaces it for a different one. However, the girl still struggles with the pronunciation of some middle and final consonants, whereas vowels are easier for her.

Order of Acquisition

Studies have shown that certain grammar problems in different languages seem to happen in the same order and no matter how you try to learn. It is not because one learns something that one acquires it because there is a natural order. Thus, the natural order is not based on simplicity or complexity, it is immune to deliberate teaching and the correlation of the types, the natural order is not the instructive order. So, we can always learn different things, but it will be absorbed in that natural order. We learn language when we understand the message, when we are interested in a message, and there are no individual variations in the basic process of acquiring the language, we learn from the context.

Children's Simplifications

Children simplify because it is a part of speech development. When youngsters truncate consonant sounds, it`s normally due to the fact they`re nonetheless studying the guidelines concerning what sounds want to be made and which don't. That's why youngsters increase techniques to keep away from or get round any complex motor styles that had to produce extra complex sound styles. Children simplify when a word becomes more complex and two consonants that are not disrupted by a vowel are next to each other.

Table 2.8 Order of acquisition

ENGLISH CONSONANTS USED BY FOUR-YEAR-OLDS

The position of each segment is shown by a dash. For example, initial **t** is **t-**, medial **t** would be **-t-**, and final **t** is **-t**. Where no position is indicated, children already use the segment appropriately in all three.

	BILABIAL	LABIO-DENTAL	DENTAL	ALVEOLAR	PALATAL	VELAR
STOPS:	p b			t- -t d		k g
FRICATIVES:		f v	-θ- θ-	s	š -ž- -ž	
AFFRICATES:					č ǰ	
NASALS:	m			n		
LATERAL:				l		
SEMIVOWELS:	w			r	y	

Based on data from Olmsted (1971).

According to Shvachkin (1973, as cited in Clark and Clark, 1977), he noted that the initial posture seemed quite pronounced too, and the small children could more easily distinguish the sounds at the beginning of the CVC syllables. Children beneath the age of approximately 4;6 years might not have enough potential to absolutely coordinate the motion in their vocal apparatus. As a consequence, positive sounds, sound mixtures or transitions from one sound to every other can be presently too difficult. The infant may, therefore, simplify the manufacturing of complicated words. However, withinside the commonly growing infant, those simplifications aren't random however pretty predictable.

Table 2.9: Omission of Final Segments

TIME	Example	Final Segment Omitted
14:33	***/i-ma/***	is (s)
14:33	***/i-ma/***	mine (ain)
19:48	***/bɔ/***	l (bowl)

23:23	***soʊ fa ə ˈweɪ***	r (far)
27:58	***/tortos/***	tle (turtle)

In this case, we see that Maria omitted a few segments in several words such as “mine”, “bowl”, “far” most of which are conformed by a consonant or a consonant derived sound. Nonetheless, all of her simplifications or omissions leave no space for doubt since the words are perfectly comprehensible with her own pronunciation.

Reduction of Consonant Clusters

Clark and Clark (1977) mention that boys systematically simplify consonant clusters to less segments; they have the option to do this by removing all the clusters. For children learning to speak, these consonant clusters can present specific challenges. As a result, young children and toddlers tend to skip some consonants and syllables. This behavior is called consonant cluster reduction. The reduction of consonant clusters is a normal part of language development. When a child cuts out a consonant, it's usually because they're still learning the rules about which sounds to play and which ones not to.

Table 2.10 Reduction of Consonant Clusters

TIME	Example	Consonant Cluster Reduced
10:44	***/jɛs a ˈvɛʤbəl/***	-bl-
15:18	***/teeve/***	-tr-
25:39	***/tortos/***	-tl-
41:06	***/‘fæ-tɪ-mə sɛd ‘pɛr-pəl/***	-pl-
43:53	***/jɛs, ɪts ‘pui-ti.***	-pr-

In table 2.10 we can see that Maria has a tendency to reduce consonant clusters that include the letters b, t and p in combination with l and r which we find in words that she repeated multiple times in the interview and did not correct herself on her performance.

As well, she has issues pronouncing these clusters when they come at the beginning of a word or in the middle; her choice of pronunciation is not far from the accepted one.

According to Ingram (as referenced by Clark & Clark, 1997) when children start producing two-syllable words, they often cope with them by reducing the word to one syllable, omitting whichever is unstressed. Children keep this form of word simplification as they master two-syllable words and attempt to produce three-syllable words, tackingling them in a progressive way.

Table 2.11 Omission of unstressed syllable

TIME	Example	Adult-Based Representation	Unstressed Syllable Omitted
10:34	***/ˈbrakli/***	broccoli	-cco
10:44	***/ˈvɛdʒbəl/***	vegetable	-ta
20:46	***/'kjeðo/***	quiero	-ero
20:46	***/pas 'ki to/***	pescadito	-ca, -di
43:53	***ɪts 'pui-ti.***	pretty	pre-

In table 2.11 we can see some examples of omission of unstressed syllables made by Maria in words of two, three, and four syllables, most of which include consonants that might be difficult for her to pronounce. For instance, in the word *broccoli*, she omitted the unstressed syllable -cco, in the middle position. Since the initial segment and stressed syllable was pronounced clearly, the word was still perfectly recognizable. This pattern was also applied when pronouncing the word *vegetable*. In the case of *pescadito*, a four-syllable word, she omitted not one but two syllables, -ca and -di, in a middle position.

In addition to this, it is also interesting to note that while she seemed to have no problem in pronouncing a syllable or segment including the consonant 'R', as in *boccoli,* she dropped and changed the sound in words like *pretty* and *quiero*.

Reduplication

According to N. Smith (as referenced by Clark & Clark, 1977), words that have two distinct syllables are simplified by choosing only one of those two syllables and then reduplicating it. Initially, both consonants and vowels remain the same, but later on only consonants or only vowels remain the same. Additionally, the degree to which children apply reduplication varies from child to child and some may never use this form of simplification.

Table 2.12 Reduplication

TIME	Example
13:40	***/a, ðæt-ðæts maɪn/***
14:14	***/ðɪs, ðɪs hæz/***
14:14	***/ðæts- ðæts ˈɔrəndʒ ˈfæθɪmə/***
14:47	***/ma'marja/***
30:38	***/aɪ koʊ-ˈkʌlər/***

In table 2.12 we can observe that rather than dropping one of the syllables and changing it for a reduplicated segment, she retained all original syllables of the words, but reduplicated the ones on an initial position. This can be seen in her attempts to pronounce her name, *Maria*, or the word *color*, which were actually pronounced as Ma-Maria and Co-color. The way she applied reduplication made it look as a form of stuttering, where she had struggles pronouncing the first syllable, but did manage to pronounce the complete word.

In the cases of “That-That’s”, “This, this has” and “That’s,That’s”, she reduplicated the entire word, a one-word syllable. Again, this can be seen as a form of slight stuttering, but instead of struggling with pronouncing the syllable, it is more likely that she was having troubles formulating or expressing her answer, rather that the syllable itself, although she may indeed had had problems pronouncing the syllable at the moment. Still, she was able to pronounce the words in a clear and recognizable way.

Other than these examples, Maria didn’t use reduplication to simplify adult words, so it is possible that she doesn’t use this form of word simplification much.

Why Simplify?

Why do little children make any simplifications at all? Clark and Clark (1977) mention several attempts of tackling this question, the following hypotheses are the result of that although they do not include a profound exploration of the subject

(1) Limited memory span. Young children have limited memory compared to older children and adults. They therefore have difficulty keeping the whole adult word in mind as they try to say it. This explanation has also been offered to account for the apparent limits on utterance length: why children start with single words and only gradually work up to utterances of two words or more.

(2) Limited representational ability. Young children are unable to represent complicated sequences of sounds (or words). They therefore store a simplified representation, close to their own pronunciations of adult words. This is the view, taken up earlier, under the label of child-based representations.

(3) Limited articulatory skill. Children take a long time to develop the articulatory skill required to produce a match between their own pronunciations and the adult versions they have represented in memory.

According to G. Olson 1973 (as cited in Clark and Clark, 1977) since memory capacity does not pretend to change with age, that alone is not an adequate explanation of why children move from very short utterances to longer ones, or, as in this one, from reducing all words to one syllable to pronouncing them in an adult way. The evidence against the second hypothesis has already been discussed. N. Smith, 1973; Dodd, 1975 (mentioned in Clark and Clark, 1977) the simplifications that they make cannot be a direct result of their representations of adult vocabulary. The third hypothesis is somehow more plausible. Menn, 1976 (cited in Clark and Clark, 1977) mentions that when children have found out how to pronounce a particular segment or sequence of them it probably takes them months of practice prior to their articulation becoming automatic.

Practice and Sound Play

Weir, 1962 (cited Clark and Clark, 1977) mentions that little children do not wait for a special occasion to use new words, they usually practice them too. They practice newly mastered segments and play with sound patterns that appear to be similar in some way. They change one segment for another one, and as they grow up make up rhymes by switching the segment at the bottom of words. They practice words and phrases by stringing words together and then play games of substitution taking out one word and putting in another and adding one phrase to build up longer sentences, and systematically changing the forms of sentences to transform them into questions of negatives and back again into statements.

Sound play and substitution "drills" are common between young children by providing additional evidence that children use representations of words based on adults. Without such representations, they would have no "role model" against which to practice newly acquired segments or from which to correct former pronunciations.

Conclusion

This chapter focuses on the development of speech sounds and language learning from birth to the first years of life; we've learned that language is an innate ability that develops without the need of instruction and that children are communicative since birth. We studied the characteristics of a child's speech since the first days of life, their first sounds and pre-speech communication tactics and followed their development, improvements and learning process throughout the first months in which their progress is astounding, going from incoherent babbling to a proper dialogue.

One of the most important topics that we learned and analyzed in this chapter is the child's perception of language in relation to their competence / performance, we know that children have a deep comprehension of speech very early in life, they understand complex elements and sequences in their native language, they produce correct intonation and stress not to mention their understanding of dialogue and social interaction that goes far beyond their phonological or grammatical abilities.

The mistakes children make in their development and learning process are also important to take in consideration, they tend to omit segments such as clusters, stressed syllables or the opposite, duplicate certain segments or words; these mistakes are a part of the learning process and a demonstration of how their knowledge comes together to improve their language skills.

This chapter includes the first formal analysis of Maria, the toddler we had the chance to interview. We used the theoretical information we had to compare with the phonetic transcription from the recording and analyzed her speech production by extracting segments that could be used to identify the characteristics from her age group. Hence, we realized that the transcription had plenty of material to work with even though Maria's performance seemed simple yet very accurate, in the moment of the interview or writing the transcription we weren't able to identify some of the peculiar elements that came up on repeated occasions, phrases or words she repeated, her the mistakes in pronunciation that she couldn't perceive and even her understanding of elements in language.

Therefore, we discovered that Maria has a language development that fits the characteristics of her age group in consideration of the progress she has made until the moment of the interview keeping in mind the more difficult language tasks she managed to perform with success and the ones that she made common mistakes or arrangements.

Chapter 3 Acquisition of Meaningful Grammar

Introduction

The chapter three encompasses the grammatical developments and production in early language acquisition. We know that young children around two and three years old make amazing progress and transition from vocalizing, then babbling to properly communicating full sentences to express complex ideas, emotions, and starting to pick up a properly constructed language from their environment. Therefore, this chapter deals with this development in different areas.

Furthermore, this chapter deals with a process of acquisition in which syntax and morphology take the lead role of the analysis. In the following pages, we will discuss several topics in the development of grammar comprehension and production during early ages alongside an analysis of Maria's performance in several categories. For instance, we used the MLU calculated from the division of the number of words and number of sentences in order to analyze Maria's performance or delivery in relation to her age and what's expected of a toddler in her age and linguistic stage.

As well, we went through the complete transcript again to find several examples of grammatical improvements such as the use of multiple grammatical categories in the same utterance (nouns as subjects or objects, verbs in different tenses and adjectives/adverbs to express different ideas). Therefore, the analyses are provided in the different tables that accompany each subject alongside theory given by experts that will guide the explanation of the toddler's performance.

Early Grammar

By the age of two, children begin to speak in word combinations and show great advances in the grasping of their native language over the next few years. While the grammar aspects children focus on differ from one language to another, there are certainly some considerable similarities in children's early grammatical efforts. For that matter, what Slobin (1985a, as cited in Carroll, 2008) called a basic child grammar, studies revealed it to be "*a universal construction of children learning their native language*". (Carroll, 2008, p.272).

Measures of Syntactic Growth

In order to measure a child's syntactic growth, researchers have come up with different measures. They first found it necessary to create an index of the child's language progress in order to compare it with that of other children at the same level of language development. However, this alone was not enough of a measurement since there are considerable differences in the rate a child's language develops, meaning that children of the same age may present quite different language skills. (Carroll, 2008).

The most widely known and used measure is the *mean length of utterances* (MLU), which as Brown (1973a, as cited in Carroll, 2008) explains, it consists of taking a sample of a hundred spontaneous utterances from a child and then count the number of morphemes per utterance. It is important to note that Brown considers some words that are multimorphemic in adult speech, as a one morpheme word in the child's speech unless there's evidence that the child does understand both constituents on its own and then combines them.

According to Brown (1973a, as cited in Carroll, 2008), language development can be divided into five MLU-defined stages. Stages I to V have a corresponding upper limit MLU of 1.75, 2.25, 2.75, 3.5, and 4.0 respectively. At Stage I, children are putting words together and produce mostly one- and two-word utterances. At Stage II, they learn to modulate the meaning of the utterances they produce with the use of grammatical morphemes. Stages III and IV are focused on the learning of more complex constructions, such as questions and negatives.

While MLU-defined stages provide us with a global view of a child's language mastering process, by general agreement, MLU measure loses its value as an index when it

is beyond 4.0 (Tager-Flusberg, 1993, as cited in Carroll, 2008), thus, most research is rather focused on the first two stages. One more important note regarding language development comparison is that, as it was previously mentioned, children of the same age can display different language skills since they have a rate of development of their own. For that reason, it is best to compare children with similar MLUs, regardless of their age difference, than to do so the other way around.

Table 3.1

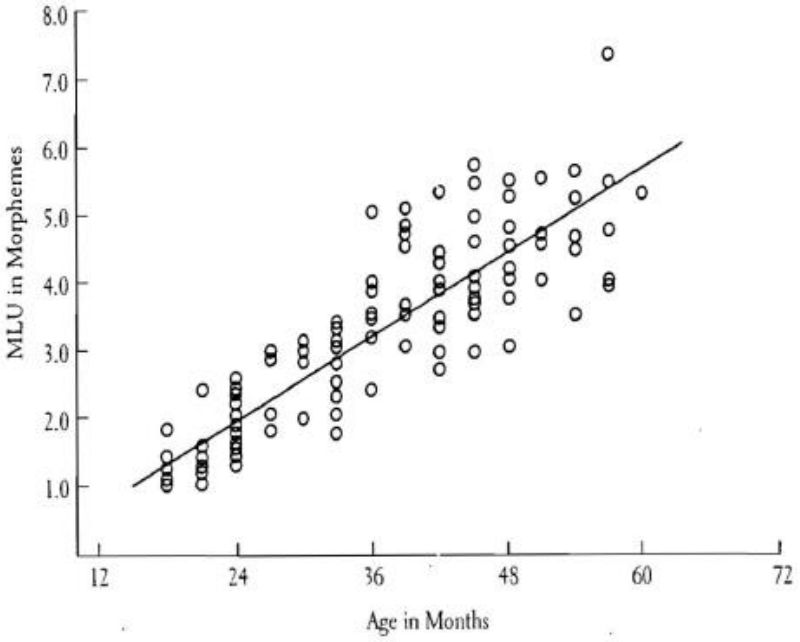
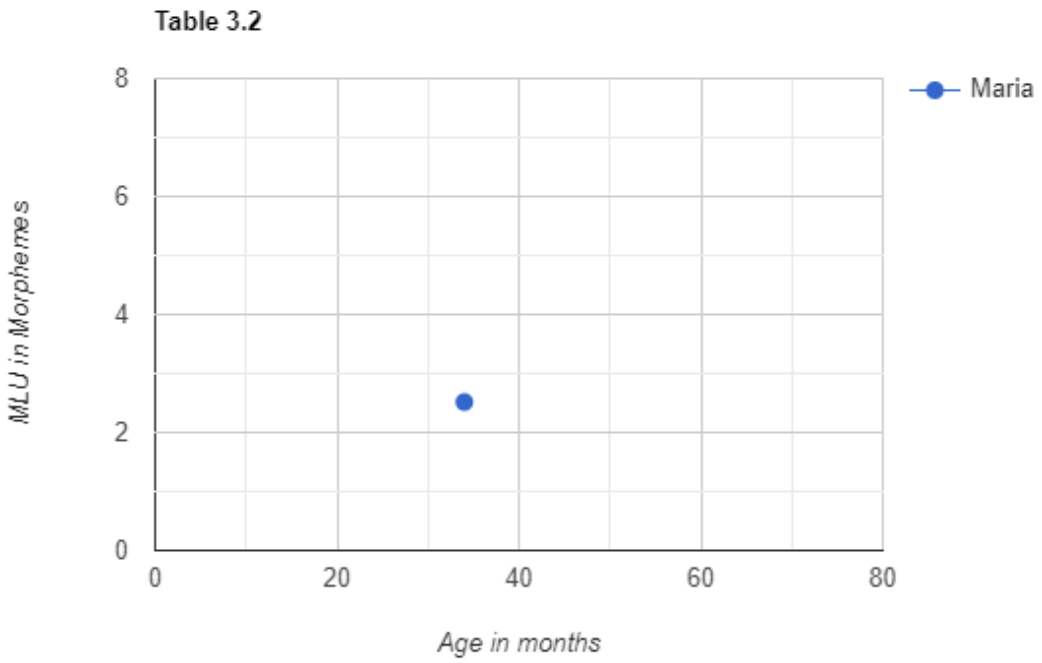


Table 3.2



The figure above, Table 3.2, is a graphic representation of Maria's MLUs in correlation to her age in months. Maria was 2;10 or 34 months old at the time the interview was conducted and the analysis of the transcription concluded with an MLU of 2.516, which would locate her at Stage III of Brown's MLU-defined stages. Considering these two values, we can say that there is a more or less close correlation between Maria's MLUs and age, although the MLU is below for about 0.5. This difference in values can be due to a variety of reasons, one of them and perhaps the most relevant is being a child developing through the context of a pandemic, which has led to a lack of interaction with other adults and children of her age.

Another reason could be the shyness of the child, who initially gave mostly short answers but as the interview advanced felt comfortable enough to interact more. A lot of

her answers were still quite short, but she did provide more elaborated answers too. Overall, it seems that the context has had some effects in her language development, but not to the point to consider it alarming. The child showed a lot of understanding and potential in her speech and will probably improve with more interaction.

Emergence of Grammatical Categories

Children begin to use two-word utterances in their daily speech, Carrol (2008) agrees with Sacks in the theory that these utterances are not just incomplete imitations from adult speech or random bursts of the children's vocabulary; instead, the utterances are a production of a complex system which the child is using to express meanings at the time he or she cannot use grammatical categories (Sachs, 1976 as cited in Carroll, 2008).

Furthermore, Carrol (2008) proposes that there is evidence to prove that children's two-word utterances are a reflection of a growing linguistic and grammatical system. First, their combinations consist mostly of function words (nouns, verbs, adjectives) and leave out function words (conjunctions, pronouns) but the grammatical use that the latter words would have in the sentence tend to be clear. Therefore, we can infer that children know that content words contain valuable information and that they are more important than function words. Secondly, the words in their utterances have systematic positions which make them easier to understand.

In addition to the emergence of multiword utterance, we must question the interpretation of these early speech phenomenons. Carrol (2008) proposes two different approaches to the analysis, the first consists of using the syntax of words to describe utterances. In contrast, we can also use the position of words in the simple sentence to

analyze the complexity and correctness of the utterance. In addition, Brown (as cited by Carrol, 2008) considers the first approach as the most accurate and describes early utterances as expressions that contain a semantic relation. He creates a list of eleven semantic relations which, in his opinion, show the 75% of children's two word utterances.

Following Brown's proposal (as cited in Carroll, 2008) we include table 3.3 which contains the relationships and an instance in which they are uttered to comprehend the different categories that the author presents, which mostly include combinations of nouns, verbs, adjectives and some prepositions.

Table 3.3 Semantic Relations in Two-Word Speech

Relation	Instance
Nomination	That ball
Recurrence	More ball
Nonexistence	Allgone ball
Agent and action	Daddy hit
Action and object	Hit ball
Agent and object	Daddy ball
Action and locative	Go store
Entity and locative	Book table
Possessor and possession	Daddy chair
Entity and attribute	Big house
Demonstrative and entity	That box

SOURCE: Based on *A First Language: The Early Stages*, by R. Brown, pp. 189–198, Harvard University Press, 1973.

In addition, table 3.4 showcases our selection of examples for each semantic relation within two-word speech utterances that we managed to gather from the interview with the toddler.

Table 3.4

Time	Relation	Instance
13:07	Nomination	The spoon!
33:08	Recurrence	Another star!
36:31	Nonexistence	Not coming (refers to her dad)
27:01	Agent and action	He’s sleep
22:24	Action and object	Win race
27:58	Agent and object	Tortos (turtle) race
-	Action and locative	Go store (from Carrol, 2008)
36:31	Entity and locative	Papi in a car
42:03	Possessor and possession	Papa's house
11:52	Entity and attribute	Small Circle
29:59	Demonstrative and entity	This one (refers to the drawing)

In the table 3.4 we can see that Maria expressed ten of the eleven semantic relations in children’s speech; in fact, nominations, recurrence and agent-action were prevalent throughout the transcription while the other relations were difficult to find but we managed to identify some cases in which the “object” was not a tangible or physical thing but instead a word or concept that worked as the object in said utterance. For example, in the case of “action and object” it was difficult to find an instance in which the girl used a verb and a noun but “Win race” is a perfect example of this combination even though it is not as literal as some examples might be.

Nonetheless, we weren’t able to find an instance for one of the semantic relations, which is action and locative; despite Maria’s diversity of expressions there wasn’t a clear utterance in which she spoke about “doing something in a particular place”. In consequence, we added an example from Carrol (2008) to illustrate that semantic relation.

In this analysis we realize that Maria uses language that despite the simplicity and abruptness, it contains a wide vocabulary that she combines in complex patterns to express different thoughts, thus proving that she is aware of the use of language, how her relatives or peers use it and what others mean when they're speaking.

Acquiring Grammatical Categories

This section describes a brief feature of cross-language studies on grammatical categories. When grammatical categories are considered as the language encoding of a particular concept or function, then both the nature of the concept or function and the nature of their formal encoding need to be examined. Languages usually have self-sustaining elements such as verbs and nouns, closed class elements such as function words (prepositions, topic markers, etc.), tenses, aspects, case, and many other distinctions. There are morphological prepositions to encode. Grammatical relationships are usually encoded by word order or elements of a closed class.

Language learners must acquire the language of their surroundings, and the ability to track statistical information in their environment and make use of patterns shown in this information is believed to be a major contributor to language acquisition. Other types of extralinguistic cognition, such as perceptual capacities that impact how sounds are interpreted as language or conceptual capacities that underpin the meanings of words and sentences, may help with this capacity. Children must also employ linguistic knowledge to learn their language's grammar.

Children, for example, frequently utilize sentences in which the semantic agent is the grammatical subject. Then students use this correlation to start learning about the

subject grammatical category. According to Steinberg & Sciarini (2006, as cited in Carroll), as children gain linguistic experience, they infer grammatical concepts from the semantic-positional configurations they have already learned. Finally, because language is primarily used for communication, understanding other people's aims and intents will be critical in assisting children in determining why people say what they say, which may aid in their capacity to decipher the meanings of sentences.

Comprehension and Production

Language allows us to express our thoughts and convey them to others. The use of language to convey these ideas depends on our ability to create and understand language. In other words, without someone who can understand the speech (the "listener"), the speaker cannot convey his thoughts on the speech. Fortunately, each of us is a speaker and a listener at the same time. The link between comprehension and production in the formation of language has long been a source of fascination, it appears to parents that children understand some types of utterances before they can create them themselves. People employ their understanding of language structure, their awareness of the setting they are in, including prior speech and the local situation, and their cognitive capacities, such as memory, attention, and motor control, to make and comprehend words and sentences.

Comprehension (broadly, understanding) and production are generally separated in child language research (broadly, expression). Notably, the connections between these two fundamental aspects of language are still a little hazy. Comprehension and production can potentially be linked in two ways. When understanding and production are measured in the same children, it is possible to compare mean absolute levels of comprehension and

production, as well as identify relative degrees of individual variance in comprehension and production.

If you have learned your original language, you are usually able to speak and understand it. Although the situation may alter for languages learnt later in life, it is usually accepted that a mature first language user's skill in production and comprehension are more or less symmetrical. You can understand whatever you can produce in your own language, and you can produce whatever you can understand. Steinberg & Sciarini (2006, as referenced by Carroll, 2008) considers that to perform correctly, the infant must understand the grammar of the sentence. This activity can be completed accurately by infants as early as 17 months, several months before they are capable of creating phrases.

Individual Differences

Language acquisition and development does not follow a specific pattern in the majority of children, there are some variables that are not taken into account at all times. As Carroll mentions, the linguistic studies in the last 30 years have found evidence on variability in speech styles and learning strategies. Among them, Nelson (1973, as referenced in Carroll, 2008) discusses the possibilities of two strategies in language acquisition based on the vocabulary and usage among children.

For instance, we have the referential strategy in which children learn words (mainly nouns) as they comprehend the relationships and existence of objects in their immediate environment. Children that use the referential strategy in their acquisition tend to learn individual words and begin to combine them to make sentences as they develop. On the other hand, there is the expressive strategy which consists of the use of language based on

social interaction, the children who use longer sentences tend to learn these types of expressions as a whole and later learn the divisions of words. Nonetheless, the author proposes that both of these strategies become unified and complement each other with time and language development (Nelson, 1973 as referenced in Carroll, 2008).

In addition, Nelson (1978, as referenced in Carroll, 2008) also mentions other factors that impact individuality in speech and language which are even more specific and/or abstract in their study; these include the hemispheric functions and specialization, cognitive abilities and the environmental factors. For the last one, children seem to have a great influence on their parents or close relatives in their own linguistic patterns and qualities.

Acquisition of Sign Language

The acquisition and development of ASL (American Sign Language) is a very interesting and complex topic that linguists wonder about when examining diverse groups of speakers. Furthermore, Carroll (2008) clarifies that ASL and ordinary spoken English have some similarities and differences that go beyond the visual or auditory aspect of each. For instance, ASL and English share grammatical features, patterns and linguistic production but ASL has a more rich morphological system.

The early acquisition of ASL is studied mainly on children who have been exposed to this type of language since birth because their parents are deaf. Unfortunately, deaf children tend to learn ASL later in life from peers or educational resources because their parents do not have the necessary knowledge to provide an ordinary education in which they could ‘pick up’ sign language (Carroll, 2008). Therefore, the explanation of the

acquisition process will be told from the point of view of a child who is capable of hearing and speaking but his first language is ASL.

Foremost, Carroll (2008) determines that ASL and English in this context have a very similar acquisition process, children learn both by the use of the language in daily activities and their own attachment to an adult speaker. As well, there is evidence on the existence of manual activity and even babbling; children who acquire sign language use gestures such as children who acquire spoken english and babble with permissible but non-existent movements. Additionally, the most significant difference between ASL and spoken English is found in the modality of both languages since ASL implies the use of a more complex morphology.

Orlansky and Bonvilian (1984, as cited in Carroll, 2008) found another important aspect to consider in the analysis of ASL acquisition, which is the possibility that children learn ´iconic´signs with more ease. Iconic signs are the ones that have a visual or clear relation between sign and referent, for example, the sign for ´eat´ is a wave to the mouth as if the person is feeding themselves. However, this proved to be a wrong assumption since the characteristics of the particular sign, such as its logic or simplicity, is not important in acquisition.

How Children Learn Language

Our brains are capable enough to do different tasks in such complex but fascinating ways that allow us to manipulate language from a very young age. These processes do not occur immediately due to the time that the brain takes to fully develop and be trained with the speech patterns that are used within the child's environment, but what is important to

consider is the fact that there are two operations happening inside that involve what children can produce and what they are perceiving. In this section there will be shown some examples of the acquisition of language patterns from the first manifestations of language to more complex forms.

From vocalization to babbling to speech

Vocalization to Babbling

It is well known that before telling their first words, children start with many different sounds that represent a variety of things depending on what they producing, for example if they cry, they are probably mad because they are hungry or their diaper needs to be changed, these samples are present in babies not matter their language,nationality or condition. Later when the babbling arrives, they will start to distinctively repeat syllables in accordance to the standard vocalizations of the first language they are learning; another important aspect is their mother language intonation patterns' role in this early stages, because it works as a guide to follow for infants when they are about to produce the sounds.

Babbling to Speech

It is common that at the first age children start to move from babbling to uttering words and what is even more amazing is the fact that some of the sounds that were pronounced in the babbling stage will not appear again once they utter their first words, which means these other sounds are going to be reacquired at some point with an order of acquisition. Jesperson (1933, as cited in Steinberg, 2013) explains that there is a discontinuity between babbling and speech sounds that involves the distinction within the (non)intentional vocalizations; babbling does not follow specific patterns, it just happen

thanks to the coordination of speech articulators so when the meaningful speech sounds appear, children try to match what they hear from mature speakers with what they can produce.

Explaining the acquisition order of consonants and vowels

The stage of meaningful speech comes with an order in the acquisition of consonants and vowels described as front-to-back with consonants and viceversa with vowels. Steingberg (1982) proposed two variables involved in this process: the visibility of articulators and ease of articulation; When a child is trying to articulate correctly the speech sounds, they will focus on the position on the mouth and lips in order to repeat them the way they are but by producing similar ones, that is the reason why they catch the consonants that are more visible first, with vowels is a little bit more complicated since the production of them involve unseen articulators. It also may be that children discover particular articulator-sound connections by chance, so when a word is about to be retained the connection is going to be followed by the development and incorporation of sound systems.

Early speech stages

Naming: one word utterances

According to Steinberg (2013) children certainly learn their first word once they finally utter a recognizable speech form and when they do it with an object or event around them. It is probably that what they produce may not be perfect and accurate at all just as the association of it, but as the correct forms of speech are uttered consequently both skills will improve. Bates (1992, as cited in Steinberg, 2013) explains that this phenomenon happens

in that way due to the physical development itself; some important examples that represent the statement are features like the musculature of the mouth and brain maturing.

Holophrastic function: one-word utterances

Despite the limits of the language abilities in those early years, children tend to express complex ideas and thoughts by using one single word that is related to the thing they are referring to; the holophrastic function gets its name because children utilize it to make mature speakers understand the purpose of their utters and complement them with a whole sentence that incorporates the actual meaning of these speech forms. We will see if the answers of the next table represent this function in the interview of the toddler.

Table 3.5

Time	One-Word Utterances	Mature Speaker Utterance
14:33	***/i-ma/***	It is mine
16:52	***/haʊs/***	He came to my house
17:26	***/fiʃ/***	I see some fish
22:10	***/reɪs/***	They are racing
22:58	***/rʌn/***	The rabbit ran

The table 3.5 shows María's responses to some of the questions and actions that were presented in the activity. The first answer which is *"ima"* reflects perfectly the first step according to the early speech stages, in this part the interviewer was asking her to talk about her favorite toys, she replied by presenting and naming her favorite dolls and as she showed them to the camera, she specified that both dolls are hers by pointing at them, instead of saying "*they are mine"* she used "*i-ma"* to represent what she was actually explaining.

In the next extract of the conversation, they were talking about Christmas and Santa Claus, as the dialogue was flowing María was hearing the interviewer's anecdote about Santa not coming to her house this year, that is when the toddler commented that he was in her house by only saying *"house".* Then they started with an activity in which she had to observe what was on the screen (it was a picture of some fish in a bowl), in this case she used the word correctly in accordance with what she was watching because the use of the plural form of *"fish"* was in there.

The following activity was about to read a story with the purpose of catching the toddler's attention and testing her concentration. The tale was *The Hare and the Turtle* which immediately was liked by Maria probably because of the participation of animals as characters, when she was asked about what both creatures were doing she just said "*race",* her answer had no tenses nor nouns but what she implied was clear enough to deduct. As the plot continued, she observed that the hare (which she constantly called rabbit) ran first and faster than the turtle, the way she manifested this idea was by only saying *"run"* while she was analyzing the picture.

The results of this exercise prove that even at a very young age, children are capable to perceive what is going on within the environment around them and at first they will not use the correct forms of speech in a discourse but as long as they continue practicing their utters by repeating the mature speakers forms, they will start to adapt their speeches and learn how they can shape their ideas.

Telegraphic Speech

The development of early speech involves many changes at a fast pace, according to Carrol (2008) it is around two years of age when children begin to produce two or three word utterances since they realize that more words can improve their communication skills, they are better understood by their relatives and peers when they add words to their speech. In table 3.6 the author showcases the semantic analysis of a child's two-word utterances; these tend to be short and simple but their complexity can be easily misunderstood.

Furthermore, Carrol (2008) uses table 3.6 with a comparative chart style to compare between the child's utterance and the one that amature speaker would use. As well, the author includes the purpose and semantic relations of the language the child expresses which can include requests, warnings, naming, refusing, bragging, making a question, answering a question, informing among many others. Therefore, we can easily see that despite the shortness of a child's utterance, the variety of purposes is not limited at all; children are able to express any idea, desire with any purpose even at an early age and a simple vocabulary.

Indeed, child utterances and mature speaker one's differ in length but also in their inherent content. One of the most important characteristics of children's speech in this stage is the wide use of content words (such as nouns, verbs, adjectives) and very scarce use of function words (articles, prepositions, verb to be). In consequence, Carrol (2008) states that children tend to use a lot more function words since these are the ones that contain the most information and are easier for children to understand. As well, children's utterances use proper sentence order despite the deletion of certain words, meaning that they have

acquired basic notions of grammatical rules that help them to use an order that adults can comprehend and that they will still use and expand with new, more mature knowledge.

Table 3.6 Two word child utterances and their semantic analysis

Child utterance	Mature speaker utterance	Purpose	Semantic relations (expressed or implied)
Want cookie	I want a cookie	Request	(Experiencer)–State–Object
More milk	I want some more milk	Request	(Experiencer)–State–Object; Quantification
Joe see	I (Joe) see you	Informing	Experiencer–State–(Object)
My cup	This is my cup	Warning	Possession
Mommy chair	This chair belongs to Mommy	Warning	Possession
Mommy chair	This chair belongs to Mommy	Answer to question	Possession
Mommy chair	Mommy is sitting in the chair	Answer to question	Location
Big boy	I am a big boy	Bragging	Attribution
Red car	That car is red	Naming	Attribution
That car	That is a car	Naming	Equation
No sleep	I don't want to go to sleep	Refusal	Experiencer–State–Negation
Not tired	I am not tired	Refusal	Experiencer–State–Negation
Where doll?	Where is the doll?	Question	Location
Truck table	The truck is on the table	Informing	Location
Daddy run	Daddy is running	Informing	Agent-Action
Joe push	I (Joe) pushed the cat	Informing	Agent–Action–(Object)
Push cat	I pushed the cat	Informing	(Agent)–Action–Object
Give candy	Give me the candy	Request	(Agent)–Action–Receiver–Object

In the following table, we include an analysis similar to Carrol (2008) in which we selected five different utterances that Maria used during the whole interview which show her clear use of semantic relations in order to express a concrete idea (whether it's a sentence, question, and so on) with a particular purpose. Hence, we selected utterances in which the girl spoke to the interviewer or her mother.

Table 3.6

Time	Child Utterance	Mature Speaker Utterance	Purpose	Semantic Relations (expressed or implied)
5:50	*It Plim* */ɪt Plim/*	It is Plim / It's Plim	Naming	Nomination

13:35	*Drop mine Cheyous.* */drɔp maɪn ʧijaoʊs/*	I drop my cheerios /I dropped my cheerios	Informing	Action and object, also uses Posession
22:05	*Tortol wants won* */tortol wants wʌn/*	Turtle wants to win	Answer to question	Agent and object
34:54	Gimme the markers /jɛs. ˈgɪmi ðə ˈmɑrkərz/	Give me the markers	Request	Action and object (to make a request)
36:31	Not coming back?	Papi is not coming back?	Question	Agent and action (also uses the locative, she formulates her question in the negative form which could count as the use of a similar semantic relation to non existence)

In this table of analysis we were able to find examples in which Maria portrayed utterances with different types of purposes / semantic relations, she used speech with the purpose of naming, informing, answering a question, making a request and even asking a question. Indeed, we could see that Maria's utterances are simpler compared to what an adult or mature speaker would say because she tends to omit function words or even informative words that can be used to say a complete thought in a correct way. For

example, in the first utterance “It Plim” she omits the verb “is” which would make a complete sentence “It is Plim” but both of them clearly have the purpose of making a statement to name something, in this case, the character she knows.

On the other hand, in the third example she says “drop mine cheerios” but this sentence was a result of a more spontaneous utterance, contextually we were talking about how she likes that cereal but she is not allowed to make a mess while eating. Here she expressed “drop mine cheerios' ' therefore, she made mistakes in the verb (unless she was using the present simple to refer to a habit), the possessive (mine instead of mine) and technically omitted the noun (I). Nonetheless, this utterance is a good example of how grammatical mistakes and omissions are common in toddlers but they are not an obstacle for a clear communicative intention.

Additionally, in the fourth example “Gimmie the markers” we can see that the girl is making a very common use of the English language to make a request to her mother. She uses the informal word “Gimmie” which the adult speaker should use (according to convention) as “Give me” or even “Can you give me…?” if trying to be polite. Even though she makes use of an “incorrect” verb we can identify a correct use of the tense (gimmie as in give) to express that she is demanding something, not stating a fact. As well, she uses the correct order of elements (verb + object) in this type of sentence. In this case, Maria uses the function word “the” to link the verb and the object that she desires but even if she had made that omission the objective of her utterance would be clear.

All this considered, Maria’s speech and utterances fit Carrol’s (2008) proposed characteristics, she uses two-three word sentences to express complex ideas with explicit purposes, tends to omit certain elements such as function words and constructs correct

sentences when it comes to syntax. We can infer that the girl has acquired a good grasp of basic grammar and vocabulary in the english language

Morpheme acquisition

Function words and inflections appear once children have acquired two- and three- word utterances to elaborate in. Firstly, a morpheme is a root or a part of a word with meaning, for instance, the word “elephants” consists of two morphemes: the word elephant and Plural (s). (Steinberg & Sciarini, 2006). Brown (1973 as cited in Steinberg & Sciarini, 2006) argued that children acquired morphemes in a similar order, due to the results of his study of three children as the examples in Table 3.7. The acquisition of morphemes has no relationship with the use of them in adult speech, indeed children learn them according to the semantic and grammatical complexity. For that reason, it is easier to acquire the Plural (s) morpheme than the ones for Verb to be.

Steinberg et al. (2001, as cited in Steinberg & Sciarini, 2006) explained the general order of morpheme acquisition based on three variables. First, *ease of observabilíty of referent,* whether the object, situation or event can easily experience the referent, the more likely it is to be stored in the memory. Second, *meaningfulness of referent*, the child will learn faster about referent objects, situations and events he or she is interested in; utterances will reflect concepts the child wants to communicate. Finally, *distinctiveness of the sound signal that indicates the referent,* it is essential the child identifies the speech sound that signals the morpheme because it facilitates its learning, for instance, the Auxiliary “be” Contractible in “Mary's playing”.

The authors Steinberg and Sciarini (2006) rate the morphemes based on the three variables assigning the value of High (H), Medium (M) and Low (L) depending on the degree in which the morpheme manifests the variable. To understand the operation of these variables, Steinberg and Sciarini (2006) explained it through three questions: first, *why are the Progressive and Prepositions "in" and "on" learned earliest?* Children are interested in the action of the object (progressive) and the location of the object (preposition). The Progressive usually appears on durative verbs such as play and hold increasing the meaningfulness of the words. On the other hand, the prepositions "in" and "on" are learned before another one because they are between two nouns in a sentence and remain stationary in physical space.

The second question is: *Why are Plural and Possessive learned before Third Person?* The Plural and Possessive are more meaningful referents for the child than the Third Person besides their similar signal sound as in the case of 'dog/z/' (Plural), 'Bob/z/' (Poss.), and 'sing/z/' (Third Person). The use of the Third Person morpheme has more complexity. Last but not least, the third question, *why is Past Irregular learned before Past Regular?* The transformation irregular verbs suffer from present to past form is easier to distinguish, meanwhile the regular forms are harder to hear.

One of the earliest sentence structure rules acquired by children is Negation. According to Klima and Bellugi (1966, as cited in Steinberg & Sciarini, 2006), negation is acquired in three main periods. The first period is the use of "no" or "not" at the beginning of an affirmative sentence, for example, *no money*. The second one, the negative marker appears internally using "do" and "does", which are considered by children as words and

not as auxiliares. Finally, the third period, children learn the perfect negative forms, the Copula “be” (“am not”) and the modal “will” (“won't”) appear.

Table 3.7

Table 1.2 How psychological variables explain order of learning of morphemes

Morpheme name and concept	Examples	Learning variables					
		Observability of referent	Meaningfulness of referent	Sound signal for referent	Summary		
1. **(Present) Progressive**: continuing action	Mary playing	High	High	High	H	H	H
2. **Prepositions**: location	in, on	High	High	High	H	H	H
3. **Plural**: one vs. more than one object	/s/, /z/, /iz/	High	High	Low	H	H	L
4. **Past Irregular**: past time	came, went, sold	Low/Medium	High	High	L/M	H	H
5. **Possessive**: possession	/s/, /z/, /iz/	High	High	Low	H	H	L
6. **Copula 'be' Uncontractible**: connector with tense	What is it?	Low	Low	High	L	L	H
7. **Articles**: one; previous reference	a, an, the	Low	Medium	High	L	M	H
8. **Past Regular**: past time	/t/, /d/, /id/	Low/Medium	Medium	Low	L/M	M	L
9. **Third Person Regular**: third person present singular	/s/, /z/, /iz/	Low	Low	Low	L	L	L
10. **Third Person Irregular**	does, has	Low	Low	High	L	L	H
11. **Auxiliary 'be' Uncontractible**: tense carrier	Is Mary happy?	Low	Low	High	L	L	H
12. **Copula 'be' Contractible**: connector with tense	Mary's hungry	Low	Low	Low	L	L	L
13. **Auxiliary 'be' Contractible**: tense carrier	Mary's playing	Low	Low	Low	L	L	L

Table 3.8

Time	Morpheme Name and Concept	Example
7:39	Copula “be” Contractible: connector with tense	***It’s George*** ***/ɪts ʤɔrʤ/***
10:27	Plural: one vs. more than one object	**Hearts** ***/harts/***
13:07	Articles: one; previous reference	***the spoon!*** ***/ðə ‘spun!/***
23:05	Third Person Regular: third person present singular Past Irregular: past time	***The tortol wants won*** ***/ðə tortol wants wʌn/***
36:31	Auxiliary “be” Contractible: tense carrier	***Papi’s coming in a car***

		/ˈpa-piˈs ˈkʌ-mɪŋ ɪn ə kar/

Maria used the contraction for the copula “be” in second person singular to introduce one of the characters in the picture; in this example, *meaningfulness of referent* has a high value because she had an interest in the character and, her excitement to communicate its identity, was notorious. On the other hand, for the Plural example, *ease of observabilíty of referent* has a high value; it was easy for the girl to know she had to add the morpheme “s” because it was included in the question structure and there were more than one figure in the slide.

Maria used the article “the” to talk specifically about an object, in this case, the spoon in the picture. She probably learned this variable because of the *ease of observabilíty of referent*, she already knew what a spoon is, but she was not speaking about spoons in general. Although Third Person Regular is not a meaningful referent as Plural, she knew it was necessary to add the morpheme “s” at the end of the verb. However, she said the verb *win* in past tense even though the question was in future form. By this point, Maria used the present progressive and mastered the Auxiliary “be” Contractible, all the learning variables were of high value, she knew the referents, one of them was meaningful for her, she was talking about her dad, and the sound signal was already mastered.

Conclusion

Chapter three showed that children at a very young age make a drastic and impressive improvement in their speech and language abilities. We focused on the grammatical development that children of 2;0 to 3;0 years of age show in their normal utterances. Furthermore, we performed several analyses of the toddler's interview and gathered information that allowed us to come into several conclusions.

For starters, Maria's Mean Length of Utterances (MLU) of 2.5 showed a correlation with her age at the moment of the interview, 2;10. The difference was only in decimals, even though the MLU resulted in a quantity below what was expected of her age group; this isn't an exact indicator of her comprehension and production abilities when we keep in mind her results in other areas.

Hence, Maria showed to be a quite advanced speaker when analyzing the content of her actual speech, for example, she managed to complete 10 out of the 11 semantic relationships which consider the use of all word categories in different combinations keeping in mind the purpose of each, she showed a diversity of utterances (of one word and two-three words) and the use of various morphemes in English as well as Spanish. In the last achievement mentioned, we identified that Maria had several uses of English grammar common with adult speakers such as the use of complex verbs, articles and contractions to conjugations.

Furthermore, we realized that the theory about children's amazing capacity to comprehend and produce speech is applicable to real life conversations, even as limited as a

video-call interaction, since Maria showed a complete capacity to answer questions, make remarks, give opinions and even react to words or images that we did not point out at all.

Chapter 4 Acquisition of Meaning

Introduction

In this chapter, we analyze the child's lexical development in relation to semantic knowledge, the influence of adult's speech and early vocabulary. We identify that children make big leaps in their linguistic production at a young age but these advancements are still met with mistakes, confusion and simplifications, all of which are part of the process to acquisition. Therefore, we use Clark and Clark (1997) theory on children's lexical development to analyze why children depend on their surroundings and their peers, most importantly, their parents to gather new words and make hypotheses according to the contexts so as to expand their lexicon; this process is also described in the chapter.

Additionally, it is important to consider concepts such as overextension, underextensions which can exemplify and explain a toddler's attempts at using new lexicon and how they use previous knowledge and context to speak. Furthermore, we include a short analysis of the toddler's interview to exemplify Maria's lexical development and domains of application (movement, color, shape, and so on) by focusing on a segment in which she was asked to identify pictures.

Lexical Development

Children's development of speech makes a big leap when they become toddler, as Carroll (2008) describes, children acquire around 14,000 words by the age of 6, meaning that since they're 18 months they start learning 8 words per day. However, this great advance doesn't

mean that their lexicon is perfect, a lot of features in words are not fully developed yet. The earliest words that they produce relate to Piaget's sensorimotor period of cognitive development, they tend to begin with words of objects they see around them, particularly those that have movement.

Furthermore, Carroll (2008) considers two phenomenons in children's early word production; the first is overextensions in which they identify a specific attribute of a complex object and find other objects that apply to such characteristics. For example, a young child may believe that all animals that have four legs are dogs and refer to them as such. On the other extreme there are underextensions, the opposite end of the spectrum in which they select an object and make it an exclusive object. For instance, they might believe that only a certain pair of shoes can be 'shoes', any other they won't recognize by name.

In addition, we must examine the role of adult speech in the child's development, we must remember that the influence of parents and peers is crucial in language learning. Hence, we take a look at ostensive definitions in which parents tend to name objects using the structure "That is an X", this is an important guide for lexical development even if the words that adults choose are somewhat ambiguous (Carroll, 2008).

Carroll (2008) also considers meaning in a child's linguistic production; he identifies the tendency of children to use holophrases in their speech; these are single word utterances which tend to express more than their assigned (dictionary, society agreed) meaning. There are several opinions about this phenomenon, McNeil (1970, as cited in Carroll, 2008) believes that children in the holographic stage have grammatical knowledge but they're not able to express it properly, hence using a single word to communicate a complex idea that would require a grammatical structure.

In comparison, Greenfield and Smith (1976, as cited in Carroll, 2008) disagree with the last opinion, they analyzed children's speech and determined that they do not possess grammatical knowledge but their single-word utterances do have semantic relations that allow us to interpret a meaning. In table 4.1 we find the different semantic relation in one-word speech so we can analyze the types of utterances children produce and what they have in special, what might be their intention.

Table 4.1

TABLE 10.2 Semantic Relations in One-Word Speech

Relation	Instance
Naming	*Dada*, looking at father
Volition	*Mama*, looking at bottle of milk, whining
Agent	*Dada*, hearing someone come in
Action	*Down*, when he sits or steps down
Object	*Ball*, having just thrown it
State of object	*Down*, having just thrown something down
Associated object	*Cracker*, pointing to door of room where crackers are kept
Possessor	*Lauren*, upon seeing Lauren's empty bed
Location	*Box*, putting crayon in box

SOURCE: From *The Structure of Communication in Early Language Development* by P. M. Greenfield and J. H. Smith, p. 70. Copyright © 1976 by Academic Press. Reprinted by permission.

Meaning in the Child's Language

One of the most noticeable aspects of language acquisition in young children is their comprehension of words and meaning, they are starting to grasp new ideas, concepts and know that words convey something. Accordingly, Clark and Clark (1977) state that lexicon building is a major part of language learning but this is only relevant when a child is able to attach meaning to each new word in his or her vocabulary. Furthermore, they identified the use of context in acquisition, children understand meaning through the gestures they see in the adult's around them and focus on the 'here and now' to obtain an idea, even if they

make a mistake or get to the wrong conclusion we can see how the context and their surroundings led them to their beliefs.

Linguistics and the study of language acquisition have tried to identify the mental process in which children learn meaning, Clark and Clarlk (1977) hypothesize that children assume two things about language:

a) Language is for communication
b) Language makes sense in context

Therefore, the process in which children acquire semantic knowledge from conceptual knowledge would start with them making a hypothesis about what a word / utterance can mean by the objects, events or properties they know from their close environments. Then, they will use their hypothesis and their experience to derive strategies for using their new vocabulary. Eventually, their strategies will lead them to match the adult level of comprehension (Clark and Clark, 1977).

In acquiring language, kids should become familiar with the implications of words. Despite the fact that they start on this right on time, in past parts it was underestimated that they had in any event some significance for the words they utilized. The words kids hear are generally new to them-they are not brought into the world with a psychological dictionary all set up. Building a vocabulary is a significant piece of securing language, and to do it, youngsters should have the option to connect importance to new words. How truly do individuals as a rule figure out what another word implies? Grown-ups, confronted with words like "oblivious" or "widdershins", have a few choices.

They can go to somebody and inquire. Or on the other hand they can go to a word reference and look into the definitions. Or on the other hand they can attempt to think about what these words mean from the unique circumstance. Grown-ups just meet this issue once in a while, yet small kids are confronted with it constantly. One-and two-year-old clearly can't take up the initial two choices open to grown-ups, however they can and do utilize setting. There are a few issues to be remembered while concentrating on the securing of significance. Some have proactively been met in before sections on language securing, while others emerge specificality from the investigation of importance.

Extremely small kids frequently appear to see considerably more than they personally can say, and they answer properly to many words before they even start to talk. Do they truly grasp what has been told to them? Here one must be exceptionally wary on the grounds that little children are truly adept at deciphering the grown-up signals utilized alongside words. A subsequent issue is that children start to utilize words when they have worked out some meaning for them. What youngsters say can frequently delude on the grounds that grown-ups accept that kids utilize their words with grown-up implications. The errors kids really do make give understanding into the most common way of planning ideas onto words.

To concentrate on the children's obtaining of significance, in this manner, we should draw on proof from painstakingly planned investigations of appreciation where kids have no non-semantic signals to translation as well as from cautious perceptions of precisely what youngsters say, specifically settings. An initial phase in the investigation of significance procurement is to distinguish the semantic theories youngsters engage with and the techniques they get from them for utilizing new words. For instance, word endings that

communicated a solitary reasonable part were gained before those that communicated that part in addition to other people. The intricacy of the ideas communicated was one significant determinant of the request in which children gained word endings.

Like word endings, the implications of some words are more complicated than others. One speculation is that the more intricate implications incorporate fewer complex implications in addition to different parts. In these semantic fields, the easier implications ought to be worked out first and afterward the more complicated ones. In different spaces, the words barely cross-over by any stretch of the imagination. Theoretical intricacy can't be utilized to foresee which importance will be more straightforward or harder than others to procure. The request youngsters learn them in likely could be reliant upon factors like individual experience and openness to explicit words. In the two occurrences, however, kids need to figure out how terms fit together in a semantic field. Children assume a functioning part in the obtaining of importance by building conceivable translations for words and expressions from what they know and from prompts in the quick setting. In doing this, they seem to begin with two suspicions about the capacity and content of language:

The principal presumption presumably outgrows their previous dependence on motions that grown-ups consistently go with. The following stage, for children, is to construe that language, like signals, is for correspondence. Suspicion 2 is similarly significant: kids expect that there is a sensible association between what the speaker says in a specific circumstance and the actual circumstance. They need to work out unequivocally what these associations are, the planning between their ideas and the language. Since they expect that grown-ups are attempting to speak with them about the "present time and

place," children depend vigorously on the "present time and place" in working out the implications of words and expressions. Children shift in their decision of theoretical data when they structure their most memorable speculations about the implications of words. In framing their underlying theory, they select a potential significance from their comprehensive information and from that infer a system for utilizing the word.

As a result, children treat what they take to be the significance of another word for how to utilize it in different events. As they figure out more about how others use it and about how well they personally are grasped while utilizing it, they slowly change their technique (their standard) until it ultimately harmonizes with the grown-up's. The techniques kids use at various stages let us know not just about the sort of applied data they consider relevant to various implications yet additionally about the way their underlying speculations advance into the grown-up implications.

The overall information individuals have about the world-was recognized from the "psychological vocabulary" their insight about words. An idea just takes on semantic importance whenever it has been connected to some part of language. A few ideas might be communicated all-inclusiveness in dialects, so they generally structure part of semantic information. One objective in concentrating on obtaining is to find the way that kids work out the associations between calculated areas and the etymological gadgets accessible in the language being learned.

Early Word Meanings

Children's meanings overlap with the adult’s and beyond that; a child might use the expression “bow-wow” for dogs, but also with other animals like horses because of their

similar characteristics, thus the child thinks they all have the same name, this is an example of over-extension. Besides, there are two types of over-extensions: the first one is called *pure over-extension,* which consists of considering one or two properties (characteristics) to use a word to refer to some objects. As an example, the word *moon* is used referring to round-shaped objects (Clark & Clark, 1977). In table 4.2, we can observe examples of the first referent and its domain of application based on shape, but table 4.3 shows us examples based on movement, size, sound and texture.

On the other hand, the *mixed over-extension* is based on different characteristics of the original referent in different situations. For instance, a girl learns the meaning of *kick* when she kicks a stationary object, in this case she relates all the characteristics implied in this action: a waving limb, sudden contact with an object, and an object being propelled. Thus, anytime this girl sees a situation in which these characteristics manifest, she will know the word kick can be used (Clark & Clark, 1977).

Furthermore, children overlap with *under-extension*, in this case they use one word only for a subset of items of the adult's category. The author Bloom (1973, as cited in Clark & Clark, 1977) exemplifies this phenomenon with the case of a girl at the age of nine months named Angela; she used the word *car* referring to cars moving through the street or the ones she rode, but not for the cars parked. Angela identified some characteristics of the adult's use combined with others that were irrelevant. This situation occurs because it is likely the child was sleepy, tired, or focused on something else when the word was learned. On the contrary, children give a completely different meaning to certain words but eventually they drop them, this phenomenon is called meaning with no overlap (Clark & Clark, 1977).

Table 4.2

TABLE 13–1
SOME OVER-EXTENSIONS BASED ON SHAPE
Words were over-extended to other objects in the order listed in the right-hand column.

WORD	FIRST REFERENT	DOMAIN OF APPLICATION
mooi	moon	cakes, round marks on windows, writing on windows and in books, round shapes in books, tooling on leather book covers, round postmarks, letter "O"
nénin	breast, food	button on garment, point of bare elbow, eye in portrait, face in portrait, face in photo
buti	ball	toy, radish, stone spheres at park entrance
ticktock	watch	clocks, all clocks and watches, gas meter, firehose wound on spool, bathscale with round dial
gumene	coat button	collar stud, door handle, light switch, anything small and round
baw	ball	apples, grapes, eggs, squash, bell clapper, anything round
kotibaiz	bars of cot (crib)	large toy abacus, toast rack with parallel bars, picture of building with columned façade
tee	stick	cane, umbrella, ruler, (old-fashioned) razor, board of wood, all stick-like objects
kutija	cardboard box	matchbox, drawer, bedside table
mum	horse	cow, calf, pig, moose, all four-legged animals

Based on E. Clark (1975).

Table 4.3

TABLE 13–2
SOME OVER-EXTENSIONS BASED ON
MOVEMENT, SIZE, SOUND, AND TEXTURE
Words were over-extended to other objects in the order listed in the right-hand column.

WORD	FIRST REFERENT	DOMAIN OF APPLICATION
sch	sound of train	all moving machines
ass	toy goat with rough hide, on wheels	a few things that move (e.g., animals, sister, wagon), all things that move, all things with a rough surface
fly	fly	specks of dirt, dust, all small insects, child's own toes, crumbs of bread, a toad
em	worm	flies, ants, all small insects, head of timothy grass
bébé	baby (self)	other babies, all small statues, figures in small pictures and prints
fafer	sound of train	steaming coffee pot, anything that hissed or made a noise
sizo	scissors	all metal objects
bow-wow	dog	toy dog, fur piece with animal head, other fur pieces without heads
wau-wau	dog	all animals, toy dog, soft house slippers, picture of an old man dressed in furs
va	white plush dog	muffler, cat, father's fur coat

Based on E. Clark (1975).

Table 4.4

TIME	P	Word	Domain of Application *(shape, movement, color, sound, texture)*
	L	For example, what color is this? Do you know the color?	Color
2:30	**M**	***Yellow.*** ***/ˈjɛloʊ/***	

	L	*Okay. Do you know any other colors here? Can you tell me?*	
2:47	**M**	***Yes.*** ***/jɛs/***	
	L	*What about this one? What color?*	
2:52	**M**	***Blue.*** ***/blu/***	

During the flashcards activity, we could see that Maria has no problem distinguishing each color and avoids over-extension as well as under-extension. When she was asked to say the name of the first color, she replied correctly with the word "yellow". It was expected that the next time she was asked, she probably would give the same answer, but this was not the case. The domain of application regarding the first referent –color– has been mastered by Maria, considering that other children are likely to name all the colors by the same word. She knows that words such as yellow, blue, red, pink, and green are colors, but they all look different. Later on, Maria described her dolls as well as other toys using the colors as a main characteristic to differentiate them.

Conclusion

In chapter four, we learned that children's lexical development is very ambiguous when it comes to semantic knowledge, children use all that surrounds them and use the input they gather from adult's speech and begin to build an impressive lexicon for their age.

Nonetheless, they are still learning and mistakes are an important part of the process since it's those errors that reveals the way that their mind is beginning to comprehend objects on a deeper level, identifying characteristics and establishing relations with annunciation and, therefore, words.

Furthermore, we analyzed the way that a child's simple lexicon can show a deep understanding of language and its purpose; for example, the use of holophrases in toddlers leads us to believe that they are able to understand further than they are able to produce. For example, chiñdren may use simple words (or even just one word) to express a complicated message, additionally, they are able to grasp concepts such as color, shape, size, number and express that with the lexicon that they have acquired so far.

Therefore, Maria's analysis complemented this theory and allowed us to identify how she responded to close-ended questions in relation to the domains of application that Clark and Clark (19779 proposed for children in her learning stage. Even though we weren't able to identify clear mistakes or confusions through the questions we asked her about the pictures we managed to conclude that she is able to understand a lot of vocabulary related to simple yet specific concepts such as colors, shapes, objects, etc. Indeed, she responded correctly to most questions and did not confuse concepts (in particular colors, which she was very good at identifying) or made over /under extensions. Significantly, she did not respond with a complete sentence or stated characteristics other than what we asked her but through the context of the picture, scenario and the question itself we know that she has a good understanding of both the question and answer.

Chapter 5 Acquisition of Discourse Competence

Introduction

In chapter 5 we analyze language through the perspective of a child's mind and the purpose speech serves in real life situations. We use Halliday's (1975) theory about children's production and use of language to describe how a toddler starts speaking to achieve social and personal benefits. Within this process, like all language acquisition, there are complex mechanisms and are not so obvious at first glance or literal; nonetheless, through the author's work we managed to study the different models that children use in every-day language and develop until they reach adulthood. These models are: the instrumental, regulatory, interactional, personal, heuristic, imaginative and representational (as well as the dominant).

Furthermore, Halliday's (1975) descriptions of each model is described and exemplified with a fragment of Maria's interview in order to identify if the toddler uses the model, what is her chosen lexicon in each model, how she does it and if she accomplishes her intentions in regards to the theoretical principles. Nonetheless, the objective of analyzing each model in the girl's speech serves the purpose of verifying her progress in language acquisition / production and identifying the dominant model or models she has developed so far.

Language models

Language, as a subject of study or human phenomenon, is very difficult to define; as Halliday (1975) states, the definition of language depends completely on the perspective,

context and field of study of each individual. For instance, when it comes to children's education and English teaching, language is defined through the child's perspective and experience. Above all, children understand language through the world, how language affects others and changes things. They know that speaking they can get their needs satisfied, whether they want milk, water or a toy, language is the key to receive it. As Halliday (1975) said "language is, for the child, a rich and adaptable instrument for the realization of his intentions" (p.59).

In addition, children have different internal models for different purposes with communication in a great variety of contexts, situations and company; these include the instrumental, regulatory, interactional, personal, heuristic, imaginative, representational and dominant models (Halliday, 2008). Next, we'll describe and exemplify each model while showcasing the way Maria uses each in her normal speech during the interview.

Instrumental Model

The instrumental model is perhaps the most simple among child's models of language as well as one of the first ones to be evolved. In terms of language awareness, this model proposes that the child becomes aware that language is used as a way of getting things done, such as getting a cookie, a glass of water or milk, an object, or whatever the child has in mind. According to this model, language comes into place in regards to a function of "I want", that is, the satisfaction of material needs. (Halliday, 1975).

According to Halliday (1975), for the matters of this language function, the success does not come by the production of elaborated adult-like sentences, rather the successful expression (and meeting) of the child's needs and wants. Halliday also mentioned that

language as an instrument has another side to it since the child is also aware that language can be used by others to exercise control over them too, which is related to the regulatory language model.

Table 5.1

TIME	P	DIALOGUE
13:07	M	**A green! Mom.** /ə grin! mɑm/
34:54	M	**Yes. Gimme the markers, the markers** /jɛs. ˈgɪmi ðə ˈmɑrkərz, ðə ˈmɑrkərz/
39:27	M	**Put on the red tap and change to the pink circles. I like pink markers.** /pʊt ɔn ðə rɛd tæp ænd ʧeɪnʤ tu ðə pɪŋk ‘sɜr-kəlz. aɪ laɪk pɪŋk ‘mɑr-kərz/

Coincidentally, all the examples found were of Maria requesting for a marker. As we can see across the three examples, Maria’s use of the instrumental mode resulted in sentences that vary in their level of length, complexity, and explicitness. In sentence number one she was distracted and talking in the back to her mom, requesting for a marker by simply specifying the color she wanted while also addressing her mom.

For sentences two and three, she was working on a coloring activity, hence why she was requesting for the markers. In sentence two she used the previous reference to state that she was indeed talking about the markers and she wanted them to be handed to her so she could color the drawing. For sentence three we can see that it was her more elaborated

request. Here, she gave a small sequence of instructions and finalized by commenting she liked pink markers. This way, we can see that Maria is perfectly capable and aware of how to use language to obtain something and is perhaps in the process of exploring all the linguistic skills and tools she can make use of in order to accomplish her needs and wants.

Regulatory Model

As explained by Halliday (1975), the regulatory model revolves around the use of language as means to regulate other people's behavior. It is considered to be closely related to the instrumental model because language is being used as an instrument, but it is specifically directed to regulate the behavior of others. Halliday also mentioned the work of Bernstein and his colleagues to explain that the behavior of parents in relation to a child's socialization process, as in, the display, repetition and reinforcement of regulatory behavior is what sets the example and determines the child's awareness of language as a form of behavioral control.

Later on, the child will apply this awareness to siblings and such, slowly establishing a base of linguistic skills, such as giving sequence of instructions or implementing rules, developing over time a more elaborated regulatory model that is enriched by the child's experiences each time. (Halliday, 1975).

Table 5.2

TIME	P	DIALOGUE

	L	There is a spoon here, that's right. Maria, what if I tell you, next time you have Cheerios, you drop them. Is that okay?
13:20	M	**Yes.** /jɛs/
	L	So, you can make a mess in your house?
	L	What would your mom say if you drop all your Cheerios?
13:35	M	**Yes, drop mine Cheyous.** /jɛs drɔp maɪn ʧijaoʊs/
	L	You think that’s okay?
13:43	M	**Yes.** /jɛs/
	L	So, we can drop our food on the floor?
13:59	M	**Yes.** /jɛs/

To showcase the use of the regulatory model, we selected this part of the interview where Maria was invited to break a rule, where she was given an hypothetical case of potentially dropping her spoon and dropping food to the floor. In all instances, Maria answered affirmatively, saying that she would drop the spoon or the food and that it was okay to do so, in fact, she even said that her mom would tell her to do it as well.

This particular example is not meant to show Maria exercising control over others and giving orders, nor did this happen during the interview. Instead, this extract shows Maria's reaction and understanding of behavioral control. Regardless of her positive answer at the possibility of "breaking a rule", at least at the time where the interview occurred, we can assume that Maria relates hypothetical cases, questions or invitations as a form of giving an instruction or expressing to the listener (Maria) that it is okay to do what it is being described. Instances like this will build up Maria's understanding of behavioral control that she will eventually try to recreate and add to her own skills regarding this language model.

Interactional Model

This model is closely related to the regulatory model and for a reason; it focuses on the use of language in the interaction between the self and the others. This model proposes that even the closest relationships of the child are largely mediated through language, while the interaction with other people is maintained linguistically. (Halliday, 1975).

Overall, this model also describes language as something that defines and consolidates a group, in terms of including and excluding, who is to be or not an "us". In that sense, language also imposes status and for that, humor, ridicule, deception, persuasion, and forensic and theatrical arts of language may come into play. For this, the child can internalize language while simultaneously listening and talking, acting both as the participant and observer of the interaction in a way that the child's own involvement does not prevent them from linguistically profiting from it. (Halliday, 1975).

Table 5.3

TIME	P	DIALOGUE
	L	Do you know this?
7:39	M	**It's George. Peppa Pig.** /ɪts ʤɔrʤ. Peppa pɪg/
	L	Peppa Pig, that's right. What else? Do you like this cartoon?
7:47	M	**Yes. I like Peppa Pig.** /jɛs. aɪ laɪk Peppa pɪg/
	L	Very good. Why do you- Why do you like Peppa Pig?
7:58	M	**That's Because like … Georgez.** /æts bɪˈkɔz laɪk … Georgez/

As seen in the dialogue extract above, Maria was engaged in the conversation, which revolved about her favorite show. She first answered that she indeed recognized the characters that were appearing on screen and even named them to prove so. In the complete interaction, she expressed her liking for the cartoon and the characters of George and Peppa Pig, to which she indicated the colors that identify or differentiate them.

This example reflects the ability of Maria to use language in order to engage in a communicative act as both a listener and speaker, expressing freely her liking to the topic being discussed and answering accordingly. Her use of language also reflected her

awareness of the self while simultaneously interacting with the other to produce a two-way conversation.

Personal Model

Among the different types of model, the Personal Model represents the child's awareness of language as a form of his own individuality. During this process, the development of the personality is notorious since language starts to be used and it is an essential part of the creation of their own speech; in here, the child will be aware that the one producing the speech is himself which is reinforced by hearing the discourses that are uttered during the development of the early stages. Another important aspect in this model is that it does not focus on the use of words to express feelings or attitudes, the main distinction is the special feature that makes the speech unique, it is something more personal that makes the individuality more visible through the years. (Halliday, 1975).

Table 5.4

TIME	P	DIALOGUE
27:58	**M**	***Tortos the race*** ***/tortos ðə reɪs/***
	L	*So who won?*
28:04	**M**	***/The rabbit is sad, sí/*** ***/ðə ˈræbət ɪz sæd,si/***

In this part of the interview, that was chosen for Table 5.4, María showed that she has a tendency to switch between two languages, English and Spanish, since those are her parents' mother languages respectively. An important thing to consider in this girl's case is the fact that this stage of her childhood was affected by the worldwide quarantine due to the COVID-19 pandemic, which means that her most frequent interactions during that time were just with her family, that is the reason she adapted her speech to the things that she could hear around her.

It is a unique part of her discourse because, even if it starts with small words, it shows her influences and culture, she understands what it is said and she can produce it because she knows the meaning of those words in both languages so she matches the correct use of words according to the context.

Heuristic Model

When children are conscious about the world around them, they start to be more interested in how it works and their curiosity lets them discover the answers they want to know. Halliday (1975) describes the Heuristic Model as the part in which children investigate their reality in order to learn new things, the essential components of this model are the question and the answer because those are the tools that they are going to use when they are expecting to learn something; in other words, it is related to their comprehension of the environment.

Table 5.5

TIME	P	DIALOGUE

36:31	**M**	***Not like this, like that? Papi's coming in a car, papi's coming back. Papi? not coming a back?*** ***/nat laɪk ðɪs, laɪk ðæt? 'pa-pi's 'kʌ-mɪŋ ɪn ə kar, 'pa-pi's 'kʌ-mɪŋ bæk. 'pa-pi? nat 'kʌ-mɪŋ ə bæk?/***
	L	*What's going on?*
37:07	**M**	***Papi is coming back*** ***/'pa-pi ɪs 'kʌ-mɪŋ bæk/***

The dialogue in Table 5.5 showed a curious María, she constantly asked questions about his father's arrival to their house, probably because she heard a familiar noise to her from the outside. She started by asking something about the activity she was doing at that time but then she suddenly changed her interest and continued with the questions about her dad.

In the next question she made, *Papi's coming in a car, papi's coming back. Papi?,* there are three elements: her dad, the action (coming back home) and the object by which it would be made (a car); she clearly knows these components but the interesting part of this is how she linked the relation between those words together and came to a conclusion. The last question, *not coming a back?***,** reflects another conclusion; she saw that her father did not come into the house so he was still somewhere else.

Imaginative Model

According to Halliday (1975), this model is strongly related to the child's environment too but the difference is that in this section they will use their creativity. The

reality they are going to understand is one that was created by their own, this includes different ways to manifest it, for example: with pure sounds, rhythmic sequences or chiming syllables; it can also be presented in how their perceived those creations as it is shown in Table 5.6:

Table 5.6

TIME	P	DIALOGUE
	L	*Did Santa come to your house?*
15:30	**M**	***Yes*** ***/jɛs/***
	L	*Very Good! Maria I have to tell you something very sad, Santa didn't come to my house. I didn't get a present from Santa, that was very sad. So, can you call Santa and tell him?*
16:47	**M**	***Yes*** ***/jɛs/***
	L	*You will call him and tell him "Lulú didn't get a present"*
16:52	M	***House*** ***/haʊs/***
	L	*He was in your house*

16:56	M	***Yes*** ***/jɛs/***

The most famous story that children know is the one that involves a big man with a long white beard and red clothes visiting every kid on Christmas, in this case it was used to see her reaction and comprehension. She assured that Santa Claus came to her house and brought her and her siblings some toys even if she did not see him doing that; then, when the interviewer told María about Santa not coming to her house and asked her if she could tell him about the situation, she without a doubt said *yes*. She also used another word to express what she believes: *house*. By doing this, she was trying to confirm to the interviewer that Santa was actually in her house last Christmas.

Representational Model

The representational model manifests when children convey a message in which they enunciate anything involving a process, person, object, abstraction, qualies), states or relations that he or she perceives in the surrounding environment; since this is the model that adults convey most often, it becomes the 'dominant' model later in life (Halliday, 1975).

Next, we include an example in table 5.7 of the way Maria used the representational model during the interview to analyze her communicative intention and the objects she focused on.

Table 5.7 Representational model

TIME	P	DIALOGUE
	L	*Yes, it's your picture, you can color it wherever you want to*
31:21	M	***A yellow star!*** ***/ə ˈjɛloʊ star!/***
	L	*That 's true! Are there many stars?*
31:34	M	***Yes, many stars*** ***/jɛs, ˈmɛni starz/***
	L	*How many?*
31:40	M	***Many stars. It's a nice one*** ***/mɛni starz. ɪts ə naɪs wʌn/***

In table 5.7 we included an example of a small interaction between Maria and the interviewer that can be a demonstration of the representational model. The context of this conversation is important because it involves Maria coloring a picture by herself, therefore, she was observing the picture of a crown on the paper, her coloring markers and expressing her observations. She mentioned specific objects she found in the picture like stars, even though these weren't the main focus of the drawing Maria was very interested in coloring them and she mentioned the color she was using, the color as well as a quality of the object, she stated "*a yellow star (..) many stars*". Therefore, we can infer that Maria is able to analyze and describe real objects that she interacts with.

Dominant Model

The dominant model, in Halliday's (1975) theory, is by far the representational since this is the only function seen in children's that adult speakers use; even though the use in early adulthood and adulthood is very different from each other due to the child's vision of the world and the influence of other models, both groups convey a message about experiences and situations in the real word, the surroundings. However, a child may have different models as the most prevalent in day to day speech.

Furthermore, by analyzing the transcription of Maria's interview while considering the different models of speech (instrumental, regulatory, interactional, personal, heuristic, imaginative and representational) and identified those that were more frequent in the whole conversation. Indeed, we identified three models that stand out in Maria's speech: the interactional, personal and representational. Maria is very responsive when it comes to specific questions or close-ended questions, when asked about a cartoon character, a picture, a color or even personal information she answers quickly and fluently most of the times; in consequence, the interactional model stands out as one of her dominant functions.

Additionally, Maria tends to speak a lot about what is happening in real time and what she observes, she makes different types of comments. For example, when we asked her to look at pictures of her family members, of cartoons or when asked to draw she started expressing observations without being asked any questions. Nonetheless, she also makes remarks about her own experiences and opinions, when asked about her favorite meals, cartoons or toys she uses words such as "I like", or "X is funny"; even in the

coloring segment of the interview she started enunciating her favorite colors and making positive comments about her own drawing saying things like “nice” and “pretty”.

Therefore, we can see that Maria is a very social and observant toddler; she is able to interact with others, pay attention to what is happening or what she sees, express her opinions and answer questions correctly.

Conclusion

In chapter five we completed an analysis of Maria’s models of language through the theory that Halliday (1975) proposed in his writing, we realized that each model of language serves a very different purpose in the practicality of human speech and all of them, in group, represent the totality of any kind of utterance that we use in daily life. Therefore, when analyzing Maria’s speech most of the models were obvious and repeatedly used throughout the interview; however, a couple of the models (the regulatory and imaginative) were difficult to identify since these are related more to a part of speech that the child would not use often or would not use with strangers.

Furthermore, this part of the analysis proved to be interesting when keeping in mind the description of all the models; we realized that Maria uses speech intelligently, she is able to give orders, opinions as well as ask questions. As a matter of fact, the dominant models of language that we found for Maria’s interview were the interactional, personal and representational; indeed, she is at the stage of acquisition where she is a conversational toddler, she spoke during most of the interview with the instructions she was given (such as describing pictures or answering questions about the story we read) and even showed

disposition to speak without being asked to, focusing on her feelings and the activities she was doing.

Conclusion

The realization of this research paper provided us with a deep reflection and comprehension of language; we used knowledge from all derivations of linguistics (grammar, semantics, syntax and more) to connect is with new information on psycholinguistics and be able to trace speech acquisition through the concepts of these fields of study. Furthermore, we learned many interesting things about human language from birth until the stages in early childhood where speech becomes more 'adult-like´. In fact, one of the most relevant aspects that we discovered is that language acquisition is not necessarily a simple progression or addition, meaning that a child who learns to talk is not only adding words to his or her lexicon. Instead, there are many factors at play.

For instance, we realized that early stages of speech, even those who are not intelligible, or people deem as 'baby talk' are the stepping stones for the development of complex speech; we must keep in mind that our phonological abilities are essential for speaking a language and that these begin very early in life, even before we are aware of it. For example, we do not realize how impressive children are at speaking with correct intonation and word order when they are very young and not able to carry a complete conversation. Regardless, the fact that children are able to pick up sound patterns as well as the way voices modify speech for social purposes or know that a subject must be said before a verb, or an object is amazing and not that obvious for someone who does not know about psycholinguistics or is not paying attention to children's speech. Nonetheless,

perhaps the most interesting aspect of speech acquisition that we learned was the powerful capacity of the mind (the brain and the psyche) to speak; this is not entirely related to the capacity of producing speech but the uses of language that we did not realize start in childhood.

The analysis of Maria, the toddler we interviewed for this research, and her speech was a very interesting and important part of the paper; we learned many things before, during and after the interview. For instance, in preparation of the interview and organization of the activities that would take place we realized that the prospects of her not being able to answer or refusing to speak with us were an important issue to consider alongside formulating questions that aimed specifically to what we were looking for, not only 'yes' and 'no' answers that couldn't be analyzed deeply. Following that, during the interview we realized that maintaining the toddler's attention and making her feel safe (even through a screen) was more challenging than we anticipated. Nonetheless, she was very cooperative and bubbly, an advantage for us so we were able to get a very extensive and varied interview and therefore, a lot of material to analyze.

Following that, after the interview came the time for the analysis; in this step we started out somewhat nervous that the theory wouldn't be applicable to our subject, not at fault of the theory but at our own fault or the specificities of the situation such as the distance or the linguistic differences. After all, Maria was a young bilingual girl that lived in another country. Nonetheless, this proved to be a pointless concern since we found ourselves very busy with the analysis of Maria's interview. All of the transcript proved to be a very interesting and complex subject of study since there were many aspects or perspectives we could take, analyzing phonetics (her pronunciation of words), lexicon

(vocabulary and words she used), and models / semantics (meaning and purpose of her speech) was possible in every single sentence she used.

Therefore, what the authors proposed in the theory was analyzed in comparison with our subject, but this does not mean that they 'predicted' word by word what Maria would say, she exceeded expectations in some respects and had difficulties in others. For instance, the MLU was a little lower than what was supposed to be seen in the calculation from the transcription; nonetheless, she proved to be very mature when it comes to pronunciation, making little mistakes, and showed an impressive lexicon, she knew many groups of words and had the capacity of distinguishing types; for example, she was able to mention various colors, animals, shapes and even names.

In general, our intentions to understand and reflect on the complexity of language and have a positive and long conversation with the toddler we interviewed were achieved. In fact, we learned many new things about the acquisition of speech that we wouldn't be able to understand before researching the topics or would be difficult to grasp just by reading theory. We managed to understand the process of language acquisition with real life examples and now we consider that we are perfectly capable of providing a good description of this process to someone else. As well, the interview and analysis we completed allowed us to reflect on our own language acquisition; we all remembered when we were toddlers or the toddlers we had around us (siblings, cousins, neighbors and so on) and reflected on mistakes or 'funny things' in their speech. Now more than ever we are conscious of the amazing capacity of our brain for language learning and how communication is a very complex phenomenon.

Finally, this learning experience will be useful both in our personal life as well as the academic or professional ambit; the first is quite obvious, we now are able to analyze speech of those around us from different perspectives and even reflect on language learning in childhood and adulthood through the comparison and contrast with a native speaker's learning process. As well, this knowledge provides many advantages in the academic and professional aspect; we can use what we've learned and find opportunities to research many more aspects of the human language in early stages, after all, we only scratched the surface of this field of study. As a matter of fact, this topic and the possibilities that it brings to our education can be of use as future teachers since we will be able to identify the stages of acquisition in our students, help them to be more communicative and express themselves with a non-judgmental and informative perspective.

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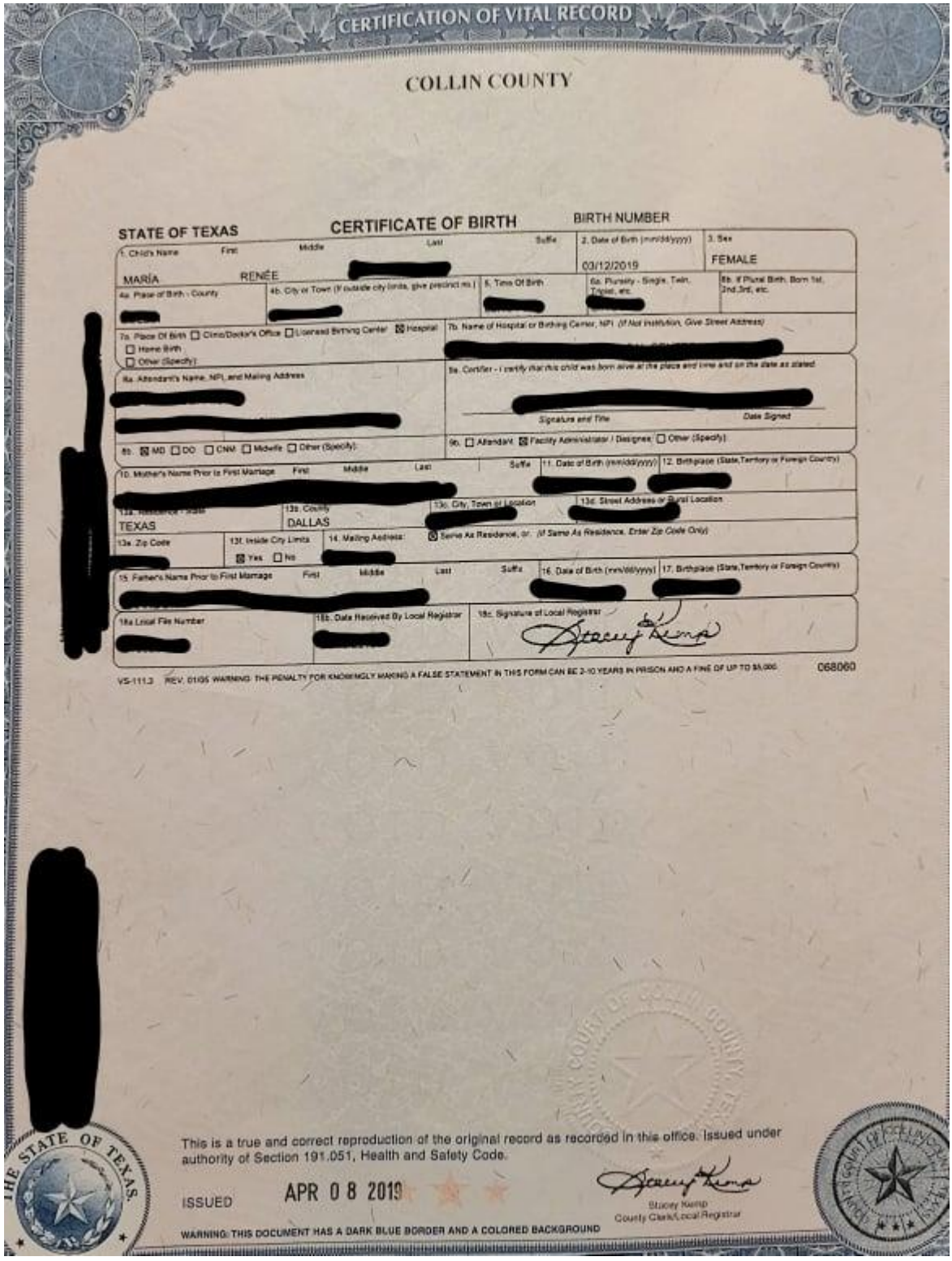
Annexes

Annex 1 Birth Certificate



CERTIFICATION OF VITAL RECORD

COLLIN COUNTY

STATE OF TEXAS — CERTIFICATE OF BIRTH — BIRTH NUMBER

1. Child's Name: First: MARÍA; Middle: RENÉE; Last: [redacted]; Suffix
2. Date of Birth (mm/dd/yyyy): 03/12/2019
3. Sex: FEMALE
4a. Place of Birth - County: [redacted]
4b. City or Town (If outside city limits, give precinct no.): [redacted]
5. Time Of Birth: [redacted]
6a. Plurality - Single, Twin, Triplet, etc.: [redacted]
6b. If Plural Birth, Born 1st, 2nd, 3rd, etc.:
7a. Place Of Birth: ☐ Clinic/Doctor's Office ☐ Licensed Birthing Center ☒ Hospital ☐ Home Birth ☐ Other (Specify):
7b. Name of Hospital or Birthing Center, NPI (If Not Institution, Give Street Address): [redacted]
8a. Attendant's Name, NPI, and Mailing Address: [redacted]
8b. Certifier - I certify that this child was born alive at the place and time and on the date as stated. Signature and Title: [redacted] Date Signed:
8c. ☒ MD ☐ DO ☐ CNM ☐ Midwife ☐ Other (Specify):
9b. ☐ Attendant ☒ Facility Administrator / Designee ☐ Other (Specify)
10. Mother's Name Prior to First Marriage: First: [redacted]; Middle; Last; Suffix
11. Date of Birth (mm/dd/yyyy): [redacted]
12. Birthplace (State,Territory or Foreign Country): [redacted]
13a. Residence - State: TEXAS
13b. County: DALLAS
13c. City, Town or Location: [redacted]
13d. Street Address or Rural Location: [redacted]
13e. Zip Code: [redacted]
13f. Inside City Limits: ☒ Yes ☐ No
14. Mailing Address: ☒ Same As Residence, or: (If Same As Residence, Enter Zip Code Only): [redacted]
15. Father's Name Prior to First Marriage: First; Middle: [redacted]; Last; Suffix
16. Date of Birth (mm/dd/yyyy): [redacted]
17. Birthplace (State,Territory or Foreign Country): [redacted]
18a Local File Number: [redacted]
18b. Date Received By Local Registrar: [redacted]
18c. Signature of Local Registrar: Stacey Kemp

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County Clerk/Local Registrar

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Annex 2 Toddler information

Name of the toddler: Maria Renée

Age at the moment of interview: 2;10

Birth date: March 12, 2019

Place of birth: Mckinney, Texas

Family members that cohabited with the child:

- Brandon, 30 years old, dad
- Claudia, 31 years old, mom
- Lucas, 4 years old, brother
- Fátima, 7 months old, sister

According to Claudia, Maria's mom, she did not attend day care services, she stayed at home and helped with chores such as cleaning, sweeping the floor and went with her parents to Target, a supermarket. She spent her time playing with her brothers and coloring. Maria enjoyed dressing with pink or yellow clothing as well as items that have prints of characters like Minnie Mouse and Peppa Pig.

Among her favorite toys, she had two dolls which she named "Pink Fátima" and "Orange Fátima" (according to the clothing color of each" as well as a yellow pick up truck which she referred to as "yellow car".

Her favorite meals were cheerios with milk, cookies and chicken nuggets, she didn't like to eat broccoli. She loved music and cartoons, her favorite songs were "Mi pollito Amarillo" from the show "La gallina pintadita" and "We don't talk about Bruno" from the

Disney movie “Encanto”. As well, she enjoyed watching Octonauts, Number Blocks and The Mickey Mouse Clubhouse. However, she didn’t enjoy the show “Plim Plim”.

In the family household there are rules that Maria and her brothers must obey, she wasn’t allowed to make a mess with her toys / food, otherwise she’d had to clean it on her own. As well, she was prohibited to fight over toys with her siblings, otherwise the woy would be removed and they would have to change the activity or game.

According to Maria’s mom the more notorious words in her vocabulary that she pronounced incorrectly were “bowl” and “quiero”, but there are many words that she was able to pronounce but didn’t get right occasionally.

Annex 3 Link of the Video

https://drive.google.com/file/d/1VXunpEYHzrTJPkLFqfFvLLcNZFoq5gY-/view?usp=sharing

Annex 4 Transcription

Descriptive Chart

Activity	Time
1. Presentation	**0:06**
2. Flashcards: identify objects	**0:46**
3. Talk about their favorite: **Tv shows**	**5:13**

Food	**9:10**
4. Invite the baby to break the rule	**13:12**
5. Describe their toys	**14:00**
6. Talk about the photograph (past)	**18:00**
7. Talk about Santa Claus	**18:50**
8. Repeat difficult words and sentences / **Identifying funny words**	**20:52** **23:00**
9. Read and talk about the story (future)	**24:18**
10. Color and talk about drawing	**20:52**

Codes

L	**Lourdes (Interviewer)**
M	**Baby**
C	**Claudia (Mother)**
P	**Participants**

NS	**Number of Sentences**
NW	**Number of Words**
MLU	**Mean Length Utterance**

Transcription

TIME	P	NS	DIALOGUE	NW	OBSERVATIONS
	L		Hello, Maria. How are you?		
	C		Dile “Fine”		
0:10	**M**	**1**	**Fine.** **/faɪn/**	**1**	
	L		*My name is Lulu. So, today I want to spend some time with you and we’re going to play a little bit, and ask you some questions. Is that okay?*		
0:27	**M**	**2**	**Yes.** ***/jɛs/***	**1**	
	L		*Okay, excellent. Let me share my screen with you.*		

	L		*Okay, let's begin. Maria, what are these? Do you know?*		
	C		*Dile que ves. Dile que ves.*		
	L		*What do you see?*		
	L		*¿Qué ves aquí? ¿De qué son estos?*		
	C		*What is it? It's a…What is it?*		
	C		*Maria, what is it?*		
1:49	**M**		****laughs****		**She laughed at the camera.**
	L		*Can you tell me what are these? Are these…people?*		
1:57	**M**	**3**	***Yes.*** ***/jɛs/***	**1**	

	L		*They are people. Oh my God. And they are different or the same?*		
			(...)		
	L		*For example, what color is this? Do you know the color?*		
2:30	**M**	**4**	***Yellow.*** ***/ˈjɛloʊ/***	**1**	
	L		*That 's right! It's yellow. So, this is what? A yellow…?*		
2:38	**M**	**5**	***Yes.*** ***/jɛs/***	**1**	
	L		*L: Okay. Do you know any other colors here? Can you tell me?*		
2:47	**M**	**6**	***Yes.*** ***/jɛs/***	**1**	
	L		*What about this one? What color?*		
2:52	**M**	**7**	***Blue.*** ***/blu/***	**1**	

	L		*Blue. Very good. Now, Maria, what are these? What do you see?*		
3:04	**M**	**8**	***Blim. Green.*** ***/blim grin/***	**2**	**She said "Blim" instead of "Green" and then said "Green".**
	L		*Can you repeat?*		
3:07	**M**		****mutters****		**She muttered**
	C		*Fuerte.*		
	L		*What is this?*		
3:27	**M**	**9**	***Red.*** ***/rɛd/***	**1**	
	L		*Red! It's red. You're right. And what about these ones?*		
3:34	**M**	**10**	***Green.*** ***/grin/***	**1**	

	L		*It's green. Are these animals, like in the other picture?*		
3:42	**M**	**11**	***Yes.*** ***/jɛs/***	**1**	
	L		*They are animals?*		
3:46	**M**	**12**	***Yes.*** ***/jɛs/***	**1**	
	L		*But they're different.*		
	L		*Do you see anything else in the picture?*		
4:02	**M**	**13**	***Yes.*** ***/jɛs/***	**1**	
	L		*Can you tell me?*		
4:05	**M**	**14**	***Yes.*** ***/jɛs/***	**1**	
	L		*What do you see?*		
	C		*What is that, Maria? You know what that is. What is it?*		

4:31	**M**	**15**	***It's … and yellow.*** ***/ɪts ... ənd ˈjɛloʊ/***	**3**	**She might have said a color before yellow, it was not clear.**
	C		*It's a…And what's the green thing? It's a…Do you have any?*		
	L		*What is this? Have you seen this?*		
4:47	**M**	**16**	***Yes.*** ***/jɛs/***	**1**	
	L		*They are animals?*		
4:51	**M**	**17**	***Yes.*** ***/jɛs/***	**1**	
	L		*But they're different.*		
	L		*What do we say about this? How do we call it?*		

4:57	**M**	**18**	***Ah! The Fatima.*** ***/a ðə ˈfæθɪmə/***	**2**	**Fatima was the name of one of her dolls.**
	L		*Do you have Fatima there?*		
5:02	**M**	**19**	***Yes.*** ***/jɛs/***	**1**	
	L		*Okay. We can bring her later. Is that okay?*		
5:07	**M**	**20**	***Yes.*** ***/jɛs/***	**1**	
	L		*Okay. Let's move on. Maria, do you like watching TV?*		
5:17	**M**	**21**	***Yes.*** ***/jɛs/***	**1**	
	L		*What type of TV shows do you like?*		
5:28	**M**		****Laughs* (...)***		**She laughed at the camera.**
	L		*Do you have favorite TV shows?*		

5:43	**M**	**22**	***Yes.*** ***/jɛs/***	**1**	
			(Shows next slide)		
5:50	**M**	**23**	***It Plim*** ***/ɪt Plim/***	**2**	**Plim Plim was mentioned as a character she did not like**
	L		*It's Plim Plim, right? Do you like him?*		
5:54	**M**	**24**	***Yes.*** ***/jɛs/***	**1**	
	L		*Why do you like him?*		
			(...)		
	L		*What does he do?*		
			(...)		
	L		*Does he play?*		

			(...)		
	C		*Maria, what does he do?*		
	L		*What about this one? Do you know it?*		
			(...)		
	L		*What else does he do ?*		
	L		*What is he like? Can you describe him? Can you tell me if he's small?*		
7:02	**M**	**25**	***Yes.*** ***/jɛs/***	**1**	
	L		*Big or small?*		
7:15	**M**		****laughs****		**She laughed at the camera**
	C		*Respóndele, corazón.*		
	L		*Okay. Let's-, I will show you another picture, okay?*		

7:35	**M**	**26**	***Okay.*** ***ˌ/oʊˈkeɪ/***	**ˌ1**	
	L		*Do you know this?*		
7:39	**M**	**27**	***It's George. Peppa Pig.*** ***/ɪts ʤɔrʤ. Peppa pɪg/***	**4**	**These were the names of some of her favorite animated characters.**
	L		*Peppa Pig, that's right. What else? Do you like this cartoon?*		
7:47	**M**	**28**	***Yes. I like Peppa Pig.*** ***/jɛs. aɪ laɪk Peppa pɪg/***	**5**	
	L		*Very good. Why do you- Why do you like Peppa Pig?*		
7:58	**M**	**29**	***That's Because like … Georgez.*** ***/æts bɪˈkɔz laɪk … Georgez/***	**4**	
	L		*Shorts?*		

	C		*George.*		
	L		*Ah, George! Who is George?*		
8:10	**M**	**30**	***Blue Garge (George).*** ***/blu Garge (ʤɔrʤ)/***	**2**	**She wanted to say “George”.**
	L		*Blue George?*		
8:15	**M**	**31**	***M: Yes.*** ***/jɛs/***	**1**	
	L		*Oh, so you like blue George. That’s him.*		
8:24	**M**	**32**	***That's like..., red Peppa Pig.*** ***/ðæts laɪk..., rɛd Peppa pɪg/***	**5**	
	L		*Oh, Peppa Pig. And what do they do? What do you-, what does Peppa Pig do?*		
			(...)		
	L		*Is she funny?*		

8:54	**M**		***Mhm (yes) .*** ***/əmhəm (jɛs)/***		**She said "Mhm" and the meaning was "yes".**
	L		*What else? What do you think about her?*		
9:01	**M**	**33**	***A red Peppa Pig.*** ***/ə rɛd Peppa pɪg/***	**4**	
	L		*Very good. Now, Maria, let's talk about food. My favorite food is spaghetti, but what about yours? What is your favorite food?*		
9:19	**M**	**34**	***Spaghetti*** ***/spəˈgɛti/***	**1**	
	L		*You like spaghetti too?*		
9:23	**M**	**35**	***Yes.*** ***/jɛs/***	**1**	
	L		*Oh my God. Do you like any other food?*		
9:27	**M**	**36**	***Yes.*** ***/jɛs/***	**1**	

	L		*Can you give an example?*		
9:32	**M**		***Mhm (yes).*** ***/əmhəm (jɛs)/***		
	L		*What do you like?*		
9:46	**M**	**37**	***Hochiyos.*** ***/ʧiriooʊs/***	**1**	**She wanted to say "Cheerios".**
	L		*Can you repeat?*		
9:52	**M**	**38**	***Yes.*** ***/jɛs/***	**1**	
	C		*Dile otra vez. Cheerios.* *Maria, Cheerios.*		
10:03	**M**	**39**	***Cheyaous*** ***/ʧɪjaoʊs/***	**1**	**Maria mispronounced the cereal "Cheerios" as it were written with a "y" or "ll" instead of a soft r**
	L		*Oh, you mean the cereal?* *Cheerios.*		
10:12	**M**	**40**	***Yes, Cheyaous.***	**2**	

			/jɛs/ /ʧijaoʊs/		
	L		*Oh, you like Cheerios. Okay. Are they squares? Or are they circles?*		
10:27	**M**	**41**	***Hearts.*** ***/harts/***	**1**	
	L		*Hearts? Okay, let me show you something. What is this?*		
10:34	**M**	**42**	***Brokli.*** ***/ˈbrakli/***	**1**	**Maria did not pronounce the letter "o", she made emphasis on "k"**
	L		*Broccoli. Do you like it?*		
10:39	**M**	**43**	***Yes.*** ***/jɛs/***	**1**	
	L		*You like it? But it's a vegetable, right?*		
10:44	**M**	**44**	***Yes, a vegable.*** ***/jɛs a ˈvɛʤbəl/***	**3**	**Maria mispronounced "vegetable", she omitted the sound "t".**

	L		*A vegetable. Is it good?*		
10:50	**M**	**45**	***Yes.*** ***/jɛs/***	**1**	
	L		*Do you like all foods? There is no food that you don't like, that you say "no this is bad"?*		
			(...)		**Maria giggled**
	L		*Okay. What about these ones? What are these?*		
11:13	**M**	**46**	***(Natda) Cheyous*** ***/ʧijaoʊs/***	**1**	**The first word wasn't clear, she mispronounced Cherrios again**
	L		*Cheerios, that's right. That's your favorite cereal.*		
11:22	**M**	**47**	***Cheyous*** ***/ʧijaoʊs/***	**1**	
	L		*Cheerios. Why do you like this?*		
11:35	**M**	**48**	***Mnn. A red circle.*** ***/ə rɛd ˈsɜrkəl/***	**3**	

	L		*Circles?*		
11:40	**M**	**49**	***Yes.*** ***/jɛs/***	**1**	
	L		*Oh, very good. These are little circles of cereal. What do we put in our cereal? With the Cheerios.*		
11:52	**M**	**50**	***Small circle.*** ***/smɔl ˈsɜrkəl/***	**2**	
	L		*Can you say it again?*		
11:59	**M**	**51**	***Yeah.*** ***/jæ/***	**1**	
	L		*Do we put orange juice with the Cheerios?*		
12:06	**M**	**52**	***Orange chip.*** ***/ˈɔrənʤ ʧɪp/***	**2**	**Maria tried to repeat "orange juice" but said "chip" instead**
	C		*What do you put on Cheerios? Something white.*		

12:17	**M**	**53**	***Yes.*** ***/jɛs/***	**1**	
	C		*What is it?*		
	L		*Let me give you a clue. What is this?*		
12:28	**M**	**54**	***Se cayó.*** ***/se ka 'yo/***	**2**	**Maria switched to spanish**
	L		*Se cayó, that's right.*		
12:34	**M**	**55**	***Yes.*** ***/jɛs/***	**1**	
	L		*But what is this white part?*		
12:43	**M**	**56**	***Dao desma red circle.*** ***/ rɛd ˈsɜrkəl/***	**2**	**The first word was unclear**
	C		*Then what's the white thing? There was a white thing.*		

12:50	**M**	**57**	***(...) white thing!*** ***/waɪt θɪŋ/***	**2**	**She mumbled at the beginning of the sentence**
	C		*That you drink.*		
	L		*That you have with your Cheerios.*		
13:07	**M**	**58**	***Huh, the spoon!*** ***/ðə ‘spun!/***	**2**	
	L		*There is a spoon here, that's right. Maria, what if I tell you, next time you have Cheerios, you drop them. Is that okay?*		
13:20	**M**	**59**	***Yes.*** ***/jɛs/***	**1**	
	L		*So, you can make a mess in your house?*		
13:26	**M**	**60**	***The (vinulpo)*** ***/ði/***	**1**	**The second word is unclear**
	L		*What would your mom say if you drop all your Cheerios?*		

13:35	**M**	**61**	***Yes, drop mine Cheyous.*** ***/jɛs drɔp maɪn ʧijaoʊs/***	**4**	**Maria used "mine" instead of "my"**
	L		*You think that's okay?*		
13:43	**M**	**62**	***Yes.*** ***/jɛs/***	**1**	
	L		*So, we can drop our food on the floor?*		
13:59	**M**	**63**	***Yes.*** ***/jɛs/***	**1**	
	L		*Okay. Now, Maria, do you like toys?*		
14:04	**M**	**64**	***Yes.*** ***/jɛs/***	**1**	
	L		*What kind of toys do you like?*		
14:10	**M**	**65**	***Fayer truck*** ***/ˈfajeər trʌk/***	**2**	**Maria mispronounced "fire".**
	L		*The fire truck? You love fire trucks?*		

14:15	**M**	**66**	***Yes.*** ***/jɛs/***	**1**	
	L		*Why? Why do you love it?*		
14:30	**M**	**67**	****giggles* (...) A red fire truck.*** ***/ə rɛd ˈfajeərtrʌk/***	**4**	**Maria mispronounced “fire” again.**
	L		*Yes, it’s a red fire truck. You’re right. Maria, you told me you have a doll called Fatima. Is she there?*		
14:42	**M**	**68**	***Yes.*** ***/jɛs/***	**1**	
	L		*Can I say hello to Fatima?*		
14:52	**M**	**69**	***Yes.*** ***/jɛs/***	**1**	
	L		*Okay. Can I see her?*		
	M		***(...)***		**Maria nodded**

	L		*Can you bring Fatima with you?*		
15:04	**M**	**70**	***Yes.*** ***/jɛs/***	**1**	
	L		*Okay.*		
15:08	**M**	**71**	***Orange Fatima?*** ***/ˈɔrənʤ 'fa ti ma?/***	**2**	
	L		*Orange Fatima?*		
15:12	**M**	**72**	***Yes.*** ***/jɛs/***	**1**	
	L		*Why is she orange Fatima?*		
15:23	**M**	**73**	***Tía Fátima.*** ***/'ti a 'fa ti ma/***	**2**	
	C		*This is a baby. (Ten cuidado).*		
15:40	**M**	**74**	***The fatimas take mine (...) yellow truck*** ***/ðə 'fa ti mas teɪk maɪn (...)ˈjɛloʊ trʌk/***	**6**	**Maria mumbled in the middle of the sentence** **She used Fátima with an "s" and**

					said “mine” instead of “my”
	L		*So, she is your favorite?*		
15:50	**M**	**75**	***Yes.*** ***/jɛs/***	**1**	
	L		*But I heard that there’s another Fatima.*		
15:59	**M**	**76**	***Yes.*** ***/jɛs/***	**1**	
	L		*Who is she?*		
16:14	**M**	**77**	***Fatima is funny.*** ***/ 'fa ti ma ɪz ˈfʌni /***	**3**	
	L		*Fátima is funny?*		
13:02	**M**	**78**	***Yes.*** ***/jɛs/***	**1**	
	L		*Oh my God. And does she have a sister?*		

13:07	**M**	**79**	***A green! Mom.*** ***/ə grin! mam/***	**3**	**She was talking to her mom about a green marker.**
	C		*No. Ahí deja los marcadores.*		
13:12	**M**	**80**	***That's a …green…*** ***/ðæts eɪ …grin…/***	**3**	**She was still talking about how the marker was green, but some parts were mumbled and difficult to understand.**
	C		*Última vez, Fátima. Última vez, Fátima.*		
13:16	**M**	**81**	***That's one.*** ***/ðæts wʌn/***	**2**	**When asked for her doll, she answered "that's one" instead of "(it's) that one".**
	C		*Show her. Show her.*		

	L		*Can I see the other Fatima? Is she there with you?*		
	C		*Maria, this is the camera. You have to show it here. You have to show it to the camera. Where's, where's-where's your other Fatima? Take her. The other one, the other one.*		
13:36	**M**	**82**	***Oh, that's one?*** ***/oʊ, ðæts wʌn?/***	**2**	**She once again answered with "that's one" instead of "(it's) that one" or "this one". She also said it with a bit of intonation, making it like a question.**
	C		*Yeah.*		
13:40	**M**	**83**	***Ah, that-that's mine.*** ***/a, ðæt-ðæts maɪn/***	**2**	**She stuttered a little and clarified the doll was hers.**

	L		*Who is she? What is her name?*		
13:50	**M**	**84**	****laughs* Fatima is like mine.*** ***/ˈfæθɪmə ɪz laɪk maɪn/***	**4**	**She seemed excited about the doll and laughed loudly before answering. She also said fatima is "like mine" instead of just "mine".**
	L		*And what is her name? Is she Fatima, just like that?*		
13:58	**M**	**85**	***Yes.*** ***/jɛs/***	**1**	
	L		*So, we have Orange Fatima and Fatima.*		
14:05	**M**	**86**	***Pink Fatima.*** ***/pɪŋk ˈfæθɪmə/***	**2**	**She clarified that the doll on screen was Pink Fatima.**
	L		*That's Pink Fatima. Oh my God. Are they sisters?*		

14:14	**M**	**87**	***This, this has, that's- that's Orange Fatima.*** ***/ðɪs, ðɪs hæz, ðæts- ðæts ˈɔrənʤ ˈfæθɪmə/***	**5**	**She stuttered a lot in this sentence, but clarified that the other doll shown on screen was Orange Fatima.**
	L		*Oh, that's Orange Fatima. Very good.*		
14:24	**M**	**88**	***Yes, that's Pink Fatima.*** ***/jɛs, ðæts pɪŋk ˈfæθɪmə/***	**4**	**She had Orange Fatima on one hand and pointed to Pink Fatima with the other one while saying this.**
	L		*Excellent. So they are your favorite dolls.*		
14:33	**M**	**89**	***e-ma*** ***/i-ma/***	**0**	**It looked like she was trying to say the dolls were hers. What she said**

					sounded like “it’s mine”.
	L		*Excellent. Now, Maria, I’m going to show you another picture.*		
14:40	**M**		***surprised* *gasps***		**She was surprised and looked happy to see herself and her family on the screen.**
	L		*Who are they?*		
14:47	**M**	**90**	***Fatima, Lucas y papi. Ma-Maria y mami.*** ***/fa 'ti ma 'lu kas i 'pa pi ma 'ma rja i 'ma mi/***	**6**	**She stuttered a little while trying to say her name.**
	L		*Very good, so that’s your dad, your mom and your brother and sister. Are you in the picture?*		
15:04	**M**	**91**	***Yes*** ***/jɛs/***	**1**	

	L		*Oh my God! And I see that you have a christmas tree*		
15:11	**M**	**92**	***Yes, I have a Christmas tree.*** ***/jɛs, aɪ hæv ə ˈkrɪsməs tri/***	**6**	
	L		*Oh my God! Do you like Christmas?*		
15:18	**M**	**93**	***There, that wabas, a hev a Christmas tree teeve*** ***/ðɛr, ðæt wabas, ə hev ə ˈkrɪsməs tri teeve/***	**5**	**She stuttered and mispronounced words. Some words were unclear, but she was talking about having a Christmas tree.**
	L		*Did Santa come to your house?*		
15:30	**M**	**94**	***Yes*** ***/jɛs/***	**1**	
	L		*Oh my God! What did he get you?*		
15:36	**M**	**95**	***– that*** ***/ðæt/***	**1**	**She mumbled words that were**

					difficult to understand.
	L		*Can you say it again?*		
15:41	**M**	**96**	***Yes*** ***/jɛs/***	**1**	
	L		*Okay, what did Santa get you?*		
15:47	**M**	**97**	***Ah! It 's the blue one!*** ***/a! ɪt ɛs ðə blu wʌn!/***	**4**	**She screamed excitedly.**
	C		*María, what did you get from Santa?*		
15:56	**M**	**98**	***That's a Red Peppa*** ***/ðæts ə rɛd Peppa/***	**4**	
	C		*What did you get from Christmas, from Santa?*		
16:04	**M**	**99**	***Christmas Rabbit*** ***/ˈkrɪsməs ˈræbət/***	**2**	
	C		*Remember? Lucas got a red truck and you got…?*		

	L		*Did you get a present from Santa?*		
16:14	**M**	**100**	***Yes*** ***/jɛs/***	**1**	
	L		*What was it?*		
	C		*Lucas got a red car and you got..?*		
16:26	**M**	**101**	***A-A yellow car*** ***/ə-eɪ ˈjɛloʊ kar/***	**3**	
	L		*A yellow car? Very Good! Maria I have to tell you something very sad, Santa didn't come to my house. I didn't get a present from Santa, that was very sad. So, can you call Santa and tell him?*		
16:47	**M**	**102**	***Yes*** ***/jɛs/***	**1**	
	L		*You will call him and tell him "Lulú didn't get a present"*		
16:52	**M**	**103**	***House*** ***/haʊs/***	**1**	

	L		*He was in your house*		
16:16	**M**	**104**	***Yes*** ***/jɛs/***	**1**	
	L		*He didn't come to my house so you have to tell him*		
17:07	**M**	**105**	***Lu'cas*** ***/lu'kəs/***	**1**	
	L		*Lucas?*		
17:12	**M**	**106**	***Y Fátima*** ***/i ˈfæθɪmə/***	**2**	
	L		*Y Fátima*		
16:15	**M**	**107**	***Y mami*** ***/i mami/***	**2**	
	L		*That's right, very good María! Okay, what do you see here, María?*		
17:26	**M**	**108**	***Fish*** ***/fɪʃ/***	**1**	

	L		*Fish, very good!*		
17:29	**M**	**109**	***minus yellow fish*** ***/ˈmaɪnəs ˈjɛloʊ fɪʃ/***	**3**	
	L		*A yellow fish? Are there other fishes here?*		
17:37	**M**	**110**	***Yes*** ***/jɛs/***	**1**	
	L		*María, I will tell you a sentence and I want you to repeat it with me, okay?*		
17:49	**M**	**111**	***Oka'y*** ***/oʊˈke'ɪ/***	**1**	
	L		*Are you ready?*		
17:52	**M**	**112**	***Yes*** ***/jɛs/***	**1**	
	L		*Okay, there are… Can you repeat? There are…*		
18:06	**M**	**113**	***Yes*** ***/jɛs/***	**1**	

	L		*So we say: There are…*		
18:14	**M**	**114**	***Yes*** ***/jɛs/***	**1**	
	L		*María,can you say "there are…"?*		
18:21	**M**	**115**	***Yes*** ***/jɛs/***	**1**	**She understood the question, but not the request or order behind it.**
	L		*Can you say "Fishes"?*		
18:24	**M**	**116**	***Yes, fishes*** ***/jɛs, ˈfɪʃəz/***	**2**	
	L		*In the… Fishes, say it again*		
18:39	**M**	**117**	***They are the fishes*** ***/ðeɪ ər ðə ˈfɪʃəz/***	**4**	**She didn't understand the request, so she answered according**

					to what she saw in the image.
	L		*Yellow fishes, can you say in a bowl?*		
18:46	**M**	**118**	***Manaciado fishes*** ***/ mana ˈsjado ˈfɪʃəz/***	**1**	**It was unclear what she wanted to say.**
	L		*They are, can you repeat it?*		
18:53	**M**	**119**	***Yes*** ***/jɛs/***	**1**	
	L		*In a bowl*		
	C		*Say it*		
	L		*Can you say bowl?*		
19:05	**M**	**120**	***/Yes/*** ***/jɛs/***	**1**	
	L		*Can I hear you?*		

19:08	**M**	**121**	***/Yes/*** ***/jɛs/***	**1**	
	L		*Can you say Fishes in a bowl?*		
19:23	**M**	**122**	***Fishes*** ***/ˈfɪʃəz/***	**1**	
	C		*In…*		
19:27	**M**	**123**	***Fishes*** ***/ˈfɪʃəz/***	**1**	
	C		*In…*		
	L		*Fishes in a what?*		
19:38	**M**	**124**	***Yellow fishes*** ***/ˈjɛloʊ ˈfɪʃəz/***	**2**	
	L		*Yellow fishes in a bowl*		
19:48	**M**	**125**	***Baw*** ***/bɔ/***	**1**	

	L		*María…*		
19:52	**M**	**126**	***A baw*** ***/ə bɔ/***	**2**	
	L		*A bowl*		
19:55	**M**	**127**	***Blue fishes*** ***/blu ˈfiʃəz/***	**2**	
	L		*Blue fishes, very good!* *María, can you say Quiero?*		
	C		*Pon atención*		
20:11	**M**	**128**	***That's funny*** ***/ðæts ˈfʌni/***	**2**	
	C		*Dile sí quiero*		
20:13	**M**	**129**	***Sí quiedo*** ***/si, kjeðo/***	**2**	**She switched to spanish**
	L		*¿Puedes decir quiero un pescadito?*		

20:20	**M**	**130**	***/Yes/*** ***/jɛs/***	**1**	
20:22	**M**		***Uhm*** ***/ʌ- hʌm/***	**0**	**She looked at the chair**
	L		*¿Quiero un pescadito?*		
20:33	**M**	**131**	***/Yes/*** ***/jɛs/***	**1**	
	L		*Otra vez, can you say it again?*		
			(...)	**0**	
	L		*¿Puedes decirlo?* *¿Quiero…?*		
	C		*Dile quiero un pescadito*		
20:46	**M**	**132**	***Quiedo un pasquito*** ***/'kjeðo umn pas 'ki to/***	**3**	
	L		*Very Good! María, It's time for you and me to read a story. Do you like reading?*		

20:59	**M**	**133**	***/Yes/*** ***/jɛs/***	**1**	
	L		*Well, are you ready for a story?*		
21:04	**M**	**134**	***/Yes/*** ***/jɛs/***	**1**	
	L		*Very good! This story is called The tortoise and the Hare. Let's begin, ok? Once upon a time, there was a tortoise and a hare. The hare liked to brag about how fast he could run. What are these ,María? What are these characters?*		
21:39	**M**	**135**	***Rabbit*** ***/ˈræbət/***	**1**	
	L		*A rabbit, very good! And the other one?*		
21:50	**M**	**136**	***/Tortol/*** ***/tortol/***	**1**	
	L		*Turtle, very good! Nobody can beat me, Hare said, Let's race and find out, Tortoise said. What are they doing?*		

22:10	**M**	**137**	***Race*** ***/reɪs/***	**1**	
	L		*A race, who do you think will win?*		
22:24	**M**	**138**	***A win race*** ***/ə wɪn reɪs/***	**3**	
	L		*Win the race, who will be the winner? You don't know the winner?*		
22:42	**M**		***Uhm*** ***/ʌ- hʌm/***	**0**	**She agreed with Lulú**
	L		*Ok, let's find out. Hare wanted to win, he hopped away and left Tortoise far behind. What is happening here?*		
22:58	**M**	**139**	***Run*** ***/rʌn/***	**1**	
	L		*He run, so what will the turtle do?*		
23:05	**M**	**140**	***The tortol wants won*** ***/ðə tortol wants wʌn/***	**4**	

	L		*Won? What will he do? Because the rabbit is so far away*		
23:23	**M**	**141**	***Yes, is so fa away, the rabbit is…*** ***/jɛs ɪt ɪz soʊ fa ə ˈweɪ, ðə ˈræbət ɪz…/***	**7**	**She gasped because she was surprised**
	L		*So Tortoise took one step after another. What will he do?*		
23:36	**M**	**142**	***Just won*** ***/ʤʌst wʌn/***	**2**	
	L		*What will happen to him?*		
23:51	**M**	**143**	***The tortol*** ***/ðə tortol/***	**2**	
	L		*Yes, that's a turtle. What will happen?*		
24:10	**M**	**144**	***/No, Fátima. Just tape this one/*** ***/noʊ, ɛfátima. ʤʌst teɪp ðɪs wʌn/***	**6**	**She took the box of the markers**
	L		*Look, Hare wanted a snack, he hopped to a field and ate some plants. What's*		

			happening here ,María? What is the rabbit doing?		
24:39	**M**	**145**	***The rabbit's is eating carrots*** ***/ðə ˈræbəts ɪz ˈitɪŋ ˈkærəts/***	**5**	
	L		*Carrots but what will he do?*		
24:50	**M**	**146**	***That's orange*** ***/ðæts ˈɔrənʤ/***	**2**	**She was looking at the marker**
	L		*Orange, now look, the tortoise took one step after another , so the rabbit is eating and the turtle is walking so what will happen? What will happen to the turtle?*		
25:24	**M**	**147**	***It's another one*** ***/ɪts əˈnʌðər wʌn/***	**3**	
	L		*Yes, who is gonna be the winner? Who do you think?*		
25:39	**M**	**148**	***Tortos, the turtos slow*** ***/tortos, ðə tortos sloʊ/***	**3**	
	L		*He is slow?*		

25:50	**M**	**149**	***The rabbit is fast*** ***/ðə ˈræbət ɪz fæst/***	**4**	
	L		*That's true, the rabbit is fast so who will win?*		
25:59	**M**	**150**	***Tortos*** ***/Tortos/***	**1**	
	L		*That's true, let's see. Hare wanted a nap, he hopped under a tree and fell fast asleep. What will the rabbit do then?*		
26:21	**M**	**151**	***The rabbit is fast*** ***/ðə ˈræbət ɪz fæst/***	**4**	
	L		*He is fast but look at him, he is sleeping*		
26:32	**M**	**152**	***What pekes wake*** ***/wʌt pekes weɪk/***	**3**	
	L		*Can you say it again? He what? Now, Tortoise took one step after another, He passed Hare and kept going*		
26:58	**M**		***Huh!*** ***/hʌ/***		**She gasped because she was surprised**

	L		*What will..?*		
27:01	**M**	**153**	***He's sleep*** ***/hiz slip/***	**2**	
	L		*So who will win now the tortoise passed the rabbit? What's gonna happen?*		
27:19	**M**	**154**	***Tortos will beat*** ***/Tortos wɪl bit/***	**3**	
	L		*The tortoise finished, let's see. Hare woke from his nap, he hopped to his feet and ran, he could not run fast enough. So what happened?*		
27:38	**M**	**155**	***He hipped*** ***/hi hɪpt/***	**2**	
	L		*Tortoise won the race, he smiled at hare, slow and steady wins the race, tortoise said*		
27:58	**M**	**156**	***Tortos the race*** ***/tortos ðə reɪs/***	**3**	
	L		*So who won?*		

28:04	**M**	**157**	***/The rabbit is sad, sí/*** ***/ðə ˈræbət ɪz sæd,si/***	**5**	**She switched to spanish**
	L		*The rabbit is sad?*		
28:15	**M**	**158**	***Yes, the rabbit is sad*** ***/jɛs, ðə ˈræbət ɪz sæd/***	**5**	
	L		*Why is he sad?*		
28:26	**M**	**159**	***The rabbit has beat*** ***/ðə ˈræbət hæz bit/***	**4**	
	L		*So, who was the winner of the race? Can you tell me who was the winner?*		
28:49	**M**	**160**	***Yes*** ***/jɛs/***	**1**	
	L		*Who was it?*		
28:54	**M**	**161**	***I lost my -*** ***/aɪ lɔst maɪ/***	**3**	**It is not clear what she says at the end.**

	L		*What happened? So this is the end of the story, did you like it?*		
29:10	**M**	**162**	***Yes, yellow princess*** ***/jɛs, ˈjɛloʊ ˈprɪnsɛs/***	**3**	
	L		*A yellow princess?*		
29:21	**M**	**163**	***It's funny*** ***/ɪts ˈfʌni/***	**2**	
	L		*It 's funny?*		
29:24	**M**	**164**	***Yes*** ***/jɛs/***	**1**	
	L		*Okay, now María, guess what. It's time for you to grab your markers because you are going to color pictures. You have your picture?*		
29:37	**M**	**165**	***Yes, a color*** ***/jɛs, ə ˈkʌlər/***	**3**	
	L		*In color, what are you going to color?*		

29:45	**M**	**166**	***I have a yellow one*** ***/aɪ hæv ə ˈjɛloʊ wʌn/***	**5**	
	L		*Your yellow marker, so you like coloring with yellow?*		
29:54	**M**	**167**	***Yes*** ***/jɛs/***	**1**	
	L		*Excellent, what are you coloring?*		
29:59	**M**	**168**	***This one*** ***/ðɪs wʌn/***	**2**	
	C		*Este*		
30:03	**M**	**169**	***That?*** ***/ðæt?/***	**1**	
	C		*Este, what is it?*		
	L		*What is it ,María?*		
30:10	**M**	**170**	***A paut, a yellow star*** ***/ə paut, ə ˈjɛloʊ star/***	**5**	**The second word was not clear**

	C		*What is it?*		
30:24	**M**	**171**	***This one?*** ***/ðɪs wʌn?/***	**2**	
	C		*Yes*		
	L		*It's a star?*		
30:32	**M**	**172**	***About a yellow star*** ***/əˈbaʊt əˈjɛloʊ star/***	**4**	
	L		*You can color yellow*		
	C		*You need help?*		
30:38	**M**	**173**	***I co-color my yellow star*** ***aɪ koʊ-ˈkʌlər maɪˈjɛloʊ star***	**5**	**The second word is a bit confusing but then she pronounces it correctly.**
	L		*Very good!*		

30:45	**M**		****giggles****		**The girl laughed**
	L		*Okay, you can color it*		
31:00	**M**	**174**	****giggles* not. Like that?*** ***/nat. laɪk ðæt?/***	**3**	
	L		*Yes, it's your picture, you can color it wherever you want to*		
31:21	**M**	**175**	***A yellow star!*** ***/ə ˈjɛloʊ star!/***	**3**	
	L		*That 's true! Are there many stars?*		
31:34	**M**	**176**	***Yes, many stars*** ***/jɛs, ˈmɛni starz/***	**3**	
	L		*How many?*		
31:40	**M**	**177**	***Many stars. It's a nice one*** ***/mɛni starz. ɪts ə naɪs wʌn/***	**6**	
	C		*Count them, one ,two, three, four, five…*		

	L		*Are there any other pictures in there? You have stars and you also have what?*		
32:18	**M**	**178**	***I have yellow stars*** ***/aɪ hæv ˈjɛloʊ starz/***	**4**	
	L		*The yellow stars. Are there circles?*		
32:25	**M**	**179**	***No*** ***/noʊ/***	**1**	
	L		*No circles? Are there triangles?*		
32:33	**M**	**180**	***No, stars*** ***/noʊ, starz/***	**2**	
	L		*Stars*		
32:49	**M**	**181**	***These are circles*** ***/ðiz ar ˈsɜrkəlz/***	**3**	
	L		*Circles, okay, very good*		
33:00	**M**	**182**	***And an opal*** ***/ænd ən ˈoʊpəl/***	**3**	**She says “opal” instead of “oval”.**

	C		*Oval*		
	M	**183**	***Oval*** ***/ˈoʊvəl/***	**1**	**Her mother corrects her and says the word correctly.**
	L		*Oval, excellent*		
33:08	**M**	**183**	***And another star*** ***/ænd əˈnʌðər star/***	**3**	
	L		*Yes*		
33:12	**M**	**184**	***Stars. Oh!*** ***/starz. oʊ!/***	**2**	**She is surprised because she almost dropped her glass.**
	L		*Be careful*		
33:18	**M**	**185**	***This is my drink*** ***/ðɪs ɪz maɪ drɪŋk/***	**4**	
	L		*Yes, it's a blue bowl*		

33:26	**M**	**186**	***Yes, a blue, a blue bow. Ah! Another one?*** ***/jɛs, ə blu, ə blu boʊl. a! əˈnʌðər wʌn?/***	**6**	
	L		*Another one?*		
33:39	**M**	**187**	***A red star*** ***/ə rɛd star/***	**3**	
	L		*A red star?*		
33:45	**M**	**188**	***A yellow star*** ***/ə ˈjɛloʊ star/***	**3**	
	L		*Very good*		
33:50	**M**	**189**	***This is a star, that's a blue star*** ***/ðɪs ɪz ə star, ðæts ə blu star/***	**7**	
	L		*You are gonna change the color?*		
34:05	**M**	**190**	***Another one, that's markers*** ***/əˈnʌðər wʌn, ðæts ˈmarkərz/***	**4**	

	L		*Oh! That's markers*		
	L		*Blue and yellow, very good!*		
	M		****giggles****		**The girl laughed**
	L		*Oh, be careful!*		
34:25	**M**	**191**	***This in my eyes*** ***/ðɪs ɪn maɪ aɪz/***	**4**	
	L		*It's in your eyes, be careful with your eyes. What are you going to do with the blue one?*		
34:34	**M**	**192**	***A blue star*** ***/ə blu star/***	**3**	
	L		*A blue star? Very creative!*		
34:43	**M**	**193**	***And another one*** ***/ænd ə ˈnʌðər wʌn/***	**3**	
	L		*And another one*		

34:54	**M**	**194**	***Yes. Gimme the markers, the markers*** ***/jɛs. ˈgɪmi ðə ˈmarkərz, ðə ˈmarkərz/***	**4**	
	L		*Your markers?*		
35:05	**M**	**195**	***Yes, and a blue tap. Thank you mine, I paunt a red circle*** ***/jɛs, ænd ə blu tæp. θæŋk ju maɪn, aɪ paunt ə rɛd 'sɜr-kəl/***	**12**	
	L		*You're gonna paint the circles with red?*		
35:24	**M**	**196**	***Sí I'll go make a red circle*** ***/si aɪl goʊ meɪk ə rɛd 'sɜr-kəl/***	**7**	**The girl laughed and looked at the camera.**
	L		*Very good!*		
35:37	**M**	**197**	***Lucas*** ***/'lu-kəs/***	**1**	**The girl continued coloring and talking.**
35:39	**M**	**198**	***I'll go make Lucas with car***	**6**	

			/aɪl goʊ meɪk ˈlu-kəs wɪð kar/		
	L		*Like Lucas' car, is it red too?*		
35:58	**M**	**199**	***I have-I have a yellow car*** ***/aɪ hæv ə 'jɛ-loʊ kar/***	**5**	
	L		*Oh! Your car is yellow*		
36:09	**M**	**200**	***Lucas have a wed car. Fatima's funny*** ***/ˈlu-kəs hæv ə wɛd kar. ˈfæ-tɪ-məz ˈfʌ-ni/***	**7**	**The girl laughed.**
	L		*Fátima is funny?*		
36:21	**M**	**201**	***Yes*** ***/jɛs/***	**1**	**The girl continued coloring.**
	L		*Who is Fátima?*		
36:31	**M**	**202**	***Not like this, like that? Papi's coming in a car, papi's coming back. Papi? not coming a back?*** ***/nat laɪk ðɪs, laɪk ðæt? 'pa-pi's 'kʌ-mɪŋ ɪn ə kar, 'pa-***	**10**	**The girl colored while she talked about her dad and showed excitement.**

			pi's 'kʌ-mɪŋ bæk. 'pa-pi? nat 'kʌ-mɪŋ ə bæk?/		
	L		*What's going on?*		
37:07	**M**	**203**	***Papi is coming back /'pa-pi ɪs 'kʌ-mɪŋ bæk/***	**4**	
	L		*Okay*		
37:12	**M**	**204**	***I make… (incomprehensible) Diamonds /aɪ meɪk….. 'daɪ-mənds/***	**2**	**The girl talked about the figures in her paper.**
	L		*Diamond? So are those diamonds?*		
37:36	**M**	**205**	***Wed diamonds /wɛd 'daɪ-mənds/***	**2**	**Maria mispronounced "red"**
	L		*Oh,wow! Red diamonds*		
37:45	**M**	**206**	***and another one /ænd ə'nʌ-ðər wʌn/***	**3**	

	L		*And another one*		
37:51	**M**	**207**	***Oh, that's funny*** ***/oʊ, ðæts 'fʌ-ni/***	**2**	**The girl was laughing and seemed comfortable coloring.**
	L		*Yes*		
38:11	**M**	**208**	***Another one*** ***/ə'nʌ-ðər wʌn/***	**2**	
	L		*Another one?*		
38:14	**M**	**209**	***Yes*** ***/jɛs/***	**1**	
	L		*You are gonna use red?*		
38:21	**M**	**210**	***I too got red*** ***/aɪ tu gat rɛd/***	**4**	
	L		*What's happening?*		**The girl smiled at the camera.**

38:30	**M**		***incomprehensible****		**The girl looked at the camera smiling.**
	L		*You're painting, you're still working on your picture*		
38:46	**M**	**211**	***A paper*** ***/ə 'peɪ-pər/***	**2**	**The girl corrected what Lourdes said.**
	L		*Your paper*		
38:52	**M**	**212**	***yes, mine a paper*** ***/jɛs, maɪn ə 'peɪ-pər/***	**4**	**The girl confirmed the statement and continued coloring.**
	L		*Oh!*		
38:55	**M**	**213**	***mine is pink one*** ***/maɪn ɪs pɪŋk wʌn/***	**4**	**The girl moved her hands excitedly.**
	L		*You like pink? You're gonna use pink?*		
39:06	**M**	**214**	***That's the coyect*** ***/ðæts ðə kə'yect/***	**3**	**The girl pointed at something and**

					smiled at the camera.
	L		*What happened?*		
39:17	**M**	**215**	***This one*** ***/ðɪs wʌn/***	**2**	
	L		*That one*		
39:22	**M**	**216**	***Yes, another one*** ***/jɛs, əˈnʌ'ðər wʌn/***	**3**	
	L		*Yes, and another one*		
39:27	**M**	**217**	***Put on the red tap and change to the pink circles. I like pink markers*** ***/pʊt ɔn ðə rɛd tæp ænd ʧeɪnʤ tu ðə pɪŋk 'sɜr-kəlz. aɪ laɪk pɪŋk 'mar-kərz/***	**13**	**The girl looked for the tap and told her mom to change the marker.**
	L		*What are you going to paint with pink?*		
39:49	**M**	**218**	***A pink owal*** ***/ə pɪŋk 'oʊ-wəl/***	**3**	

	L		*Oval, wow!*		
39:56	**M**	**219**	***I (incomprehensible) a pink oval*** ***/aɪ … ə pɪŋk ‘oʊ-wəl/***	**4**	
	L		*Excellent!*		
40:04	**M**	**220**	***Like that, that one, pink one, oh, this is mines, this is mines*** ***/laɪk ðæt. ðæt wʌn, pɪŋk wʌn, oʊ, ðɪs ɪs maɪns, ðɪs ɪs maɪns/***	**7**	**The girl pointed out the figures and laughed.**
	L		*Oh! That 's yours?*		
40:22	**M**	**221**	***Yes*** ***/jɛs/***	**1**	
	L		***Oh***		
40:26	**M**	**222**	***I just like that. I color a pink car*** ***/aɪ ʤʌst laɪk ðæt. aɪ ‘kʌlər ə pɪŋk kar/***	**8**	**The girl observed her paper and described it.**

	L		*A pink car?*		
40:37	**M**	**223**	***Yes, I coming a pink car*** ***/jɛs, aɪ 'kʌ-mɪŋ ə pɪŋk kar/***	**5**	
	L		*Oh, you have a yellow car but now. You want a pink car?*		
40:48	**M**	**224**	***Ah, I just*** ***/a, aɪ ʤʌst/***	**2**	**The girl was focused on the paper.**
	L		*Oh*		
40:57	**M**	**225**	***The Fatima, the Fatima*** ***/ðə 'fæ-tɪ-mə, ðə 'fæ-tɪ-mə/***	**2**	**The girl got distracted by Fatima.**
	L		*What's happening?*		
41:06	**M**	**226**	***Fatima said perpol. Oh. Fatima said blue*** ***/'fæ-tɪ-mə sɛd 'pɛr-pəl. oʊ. 'fæ-tɪ-mə sɛd blu/***	**4**	

	L		*That's very pretty. Very good!*		
41:35	**M**	**227**	***This is funny*** ***/ðɪs ɪs 'fʌ-ni/***	**3**	**The girl showed her paper at the camera.**
	L		*Is it a house?*		
41:47	**M**		***Hmmm***		**The girl denied moving her head.**
	L		***What is it?***		
41:52	**M**	**228**	***Paper*** ***/'peɪ-pər/***	**1**	
42:03	**M**	**229**	***Papa's house*** ***/'pa-pəs haʊs/***	**2**	
	C		*De tu abuelita y tu abuelito*		
42:12	**M**	**230**	***Tita*** ***/'tita/***	**1**	**The girl said louder.**

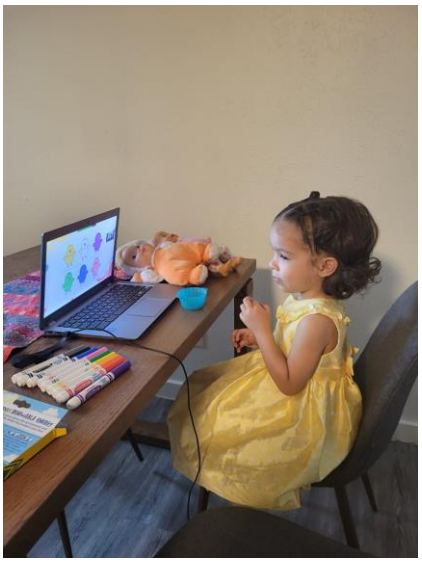
	L		*Tita, oh! Very good!*		
42:15	**M**	**231**	***Orange, Fatima is orange*** ***/ˈɔ-rəntʃ, ˈfæ-tɪ-mə ɪs ‘ɔ-rəntʃ***	**3**	**The girl discovered her doll was orange like the marker.**
	L		*Oh! Like Fátima. That’s very pretty*		
42:35	**M**	**232**	***That’s funny, a pink oval*** ***/ðæts ‘fʌ-ni, ə pɪŋk ‘oʊ-vəl/***	**5**	
	L		*The pink oval*		
42:45	**M**	**233**	***And another oval*** ***/ænd əˈnʌ-ðər ‘oʊ-vəl/***	**3**	**The girl pointed out another oval on the paper.**
	L		*Another oval*		
42:50	**M**	**234**	***That’s one oval*** ***/ðæts wʌn ‘oʊ-vəl/***	**3**	
	L		*That’s true, you’re right*		

42:56	**M**	**235**	***Like this. About (incomprehensible) pappa's house***	**4**	**The girl compared the ovals and mentioned her granddad's house.**
	L		*Pappa's house?*		
43:18	**M**	**236**	***It's like pappas house***	**4**	
	L		*Oh*		
43:28	**M**	**237**	***Abueita. A pink /a-bue-'i-ta ə pɪŋk/***	**3**	**The girl mentioned her grandma and showed the marker she used.**
	L		*It's pink. You like pink?*		
43:38	**M**	**238**	***I like pink markers /aɪ laɪk pɪŋk 'mar-kərs/***	**4**	
	L		*Oh! The pink markers*		

43:45	**M**	**239**	***Oh! That's right***	**2**	
	L		*Very good! Oh, wow! It's very pretty!*		
43:53	**M**	**240**	***Yes, it's pwetty. What a this one*** ***/jɛs, ɪts 'pui-ti. wʌt ə ðɪs wʌn/***	**7**	
	L		*Okay*		
44:06	**M**	**241**	***That's one*** ***/ðæts wʌn/***	**2**	
	L		*Oh! Very pretty*		
	C		*I'm proud. So pretty!*		
	L		*Excellent, María! María ,can you call your mom?*		
44:22	**M**	**242**	***Yes*** ***/jɛs/***	**1**	**The girl still showed her coloring.**
	L		*María, I have to go now. Is that okay?*		

	C		*She has to go*		
44:31	**M**	**243**	***No*** ***/noʊ/***	**1**	**The girl was angry and sad because the video call had to finish.**
	C		*Yes, she has to go*		
	L		*I have to go ,María. Will you say goodbye?*		
44:41	**M**	**244**	***No*** ***/noʊ/***	**1**	**The girl refused**
	L		*No?*		
	C		*Sí, María, dile thank you. A ver si te sirvió lo de María*		
	L		*Sí, muchísimo. Muchas gracias*		
TOTAL		**244**		**614**	
			MLU	**2.516**	

Annex 5 Picture



Annex 6 Drawing