ÇUKUROVA UNIVERSITY

THE INSTITUTE OF SOCIAL SCIENCES
ENGLISH LANGAUGE TEACHING DEPARTMENT

THE IMPACT OF BIRTH ORDER AND GENDER ON PRAGMATIC DEVELOPMENT OF TURKISH CHILDREN IN L1 ACQUISITION

YEŞİM KEŞLİ

A Ph. D. DISSERTATION

ADANA, 2006

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A Ph. D. DISSERTATION

ADANA, 2006

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ABSTRACT

THE IMPACT OF BIRTH ORDER AND GENDER ON PRAGMATIC DEVELOPMENT OF TURKISH CHILDREN IN L1 ACQUISITION

YEŞİM KEŞLİ

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In the literature so far, there is few study on birth order and gender related effects on language development. Although the literature is suggestive, it has not provided a sufficient empirical basis for the consequences of birth order and gender for language development. Therefore, the purpose of this study is to discover whether the language development is different depending on gender and birth order and to provide evidence in experience and development that will provide a basis for inferring how the multiple components of language development make use of language experience.

This study asks if there are differences in language use among the children depending on whether female/male or first/later born. Furthermore, this study asks whether gender or birth order is related to differences among children in their rates of language development, including measures pragmatic development.

Key words

1. **Pragmatic Development**
2. **Speech Act**
3. **Interchange**
4. **Interchange-Speech Act Combination**

5. Communicative Intent

ÖZET

CINSIYET VE DOGUM SIRASININ TÜRKÇEYÌ ANADÌLÌ OLARAK EDÌNEN ÇOCUKLARIN EDİMBİLİMSEL GELİŞMESİNE ETKİSİ

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Şu ana kadar literatűrde, cinsiyetin ve doğum sırasının dil gelişimindeki etkileri űzerine çok az çalışma yapılmıştır. Literatűrun bu konuda őnerici olmasına rağmen, cinsiyet ve doğum sırasının dil gelişimindeki rolű űzerine yeterli empirik sonuçlar sağlanmmamıştır. Bu nedenle, bu çalışmanın amacı dil gelişiminin cinsiyete ve doğum sırasına bağlı olup olmadığını keşfetmek ve çoklu etmenlerin nasıl dil deneyiminde kullanıldığı űzerine daynadırılarak dil gelişimi ve deneyimi űzerine ipuçları sağlamaktır. Bu çalışma, erkek/kız veya ilk çocuk/ikinci çocuk olmanın dil kullanımında farklılıklar yaratıp yaratmadığını sorgulamaktadır. Buna ek olarak, bu çalışma, cinsiyet ve doğum sırasının dil gelişimi oranlarında çocuklar arasında farklılıklar yaratıp yaratmadığına edimbilimsel őlçűmleri de kapasayarak sorgulamaktadır.

Anahtar Sözcükler

1. Edimbilimsel Gelişme

2. Söz eylem

3. Karşılıklı Konu Değişimi

4. Karşılıklı Konu Değişim-Söz Eylem Bileşimi

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CHAPTER I

THE IMPACT OF BIRTH ORDER AND GENDER ON PRAGMATIC DEVELOPMENT OF TURKISH CHILDREN IN L1 ACQUISITION

1. Introduction

In the literature, there is not a provided basis for the consequences of both birth order and gender in language development or of the role of language experience in explaining those consequences. There are a few studies on birth order-related effects on language development (Hoff-Ginsberg,1998), but there are almost no studies on gender-related differences on language development. Thus, it is difficult to discern from the literature how much gender-related differences for children's language development are due to the nature of those children's language experience and how much are due to the broader effects of birth order.

Most studies examined either language experience or language development. They have not found out the answer to the question of whether the birth order or gender-related differences in children's language experience observed in one set of studies is related to the birth order or gender-related differences in language development observed in another set of studies. This study can be designed in order to address these gaps in the literature. There is growing evidence that both the nature of children's language learning experience and the course of their language development vary as function of birth order and gender. This variation is of interest for two reasons (Hoff-Ginsberg, 1998): First, correlation

between language experience and language development provide clues on how language learners make use of the language experience, thus addressing theoretical issues regarding the nature of the language acquisition process. Second, the consequences of birth order and gender for children's developmental outcomes are of interest. As language development potentially affects social development, cognitive development, and school development in later ages; thus, understanding the effects of birth order and gender on language development is crucial to understanding the broader consequences of these variables (Hoff-Ginsberg & Krueger,1991).

1.1. Statement of the problem

In the literature so far, there are few studies on birth order and gender-related effects on language development. Although the literature is suggestive, it has not provided a sufficient empirical basis for the consequences of birth order and gender for language development.

Kesli 2001 conducted a research in order to describe the pragmatic development of one, two, and three-year-old-Turkish children . Her study aimed to find out for what and how the children between the ages of 12 and 36 months communicate with their mother, and the variety and the intelligibility of their attempts as well as the repertoire of intents they express. Moreover, it is aimed to find out the size of children's verbal-communicative repertoire; that is, how many different communicative acts, such as agree to do, disagree to do, request, are children able to express verbally and non-verbally at various ages? She indicated that in order to understand the syntactic, lexical, and morphological developments more clearly, it is important to investigate the pragmatic development first as it will be the base to understand the syntactic, lexical, and

morphological development. It is an urgent need to comprehend how children in their first years of life- between 1 and 3 years old- communicate both verbally and nonverbally.

For these purposes in mind, she had conducted a cross-sectional study, and she found out that in parallel with the Ninio and Snow's findings (1996), as children get older, they start using these utterances within the proper meaning and these utterances can syntactically and semantically be analysed. Moreover, the communicative repertoires show that pragmatic development occurs in parallel with the children's language development and the mothers' effectiveness in communicating with their children. Therefore, in order to describe children's pragmatic development, we need to observe their communicative attempts at different ages. The findings of this study lead us to conclude that Turkish children in their first three years of life display a high pragmatic development in their language. The degree of their pragmatic development varies mainly according to the mother's effective efforts in leading their children into communication and in providing the appropriate input. Moreover, giving more than one function to speech acts both by the mothers and the children is an important factor in pragmatic development because at the early ages like12-14-16 months children can only use a limited core of speech acts with one function; but as the age increases they start to use same speech acts with different functions within various interchange types.

The results presented in her study (Kesli, 2001) has provided a first step in answering persistent questions about the place of pragmatics in a theory of language development, and through a longitudinal survey study more detailed outcomes could be provided in the further studies. Therefore, the purpose of this study is to discover whether

language development is different depending on gender and birth order as well as to provide evidence in experience and development that will provide a basis for inferring how the multiple components of language development make use of language experience.

This study asks if there are differences in language use among children depending on whether they are female/male or first/later born. Furthermore, this study asks whether gender or birth order are related to differences among children in their rate of language development, including measuring pragmatic development.

1.2. Background of the study

1.2.1. Birth order, language learning experience, and language development

First borns and later borns have access to different kinds of language learning experiences. First-born children are temporarily the only children at home, and while that status lasts they have greater possibilities for experiencing one-to-one interaction with an adult than later born children ever do (Hoff-Ginsberg,1998). In the studies of the effects of birth order on language development, first borns have been found to have greater vocabularies than later borns (Fenson et. al., 1994; Jones & Adamson, 1987). First and later born children might have different language learning environments as a result of birth order-related differences in how mothers talk to their children. Jones & Adamson (1987) found that mothers interacting with first borns between 18 and 23 months asked more questions, elicited more replies, and provided more support for their children's linguistic attempts than did mothers interacting with later borns of the same age. In contrast, McCartney, Robeson, Jordan, and Mouradian (1991) found that mothers asked yes/no questions with rising intonation with their second-born children at 21

months and also used less complex syntax than they did with their first-born children at the same age.

The predictions for birth order effects on language development in the literature are mixed. On the one hand, first borns should have an advantage in language development because more speech is directly addressed to them. Previous studies have found that the amount of speech children hear and, in particular, their access to one-on-one interactions with an adult are positive predictors of children's language development (Barnes, Gutfreund, Satterly, & Wells, 1983; Huttenlocher, Haight, Bryk, Seltzer, & Lyons, 1991). Furthermore, within conversatons with their younger siblings, older siblings are not likely to compensate for the decreased amount of interaction with adults that later-born children experience; older siblings have been found to be less attentive and less involved conversational partners for young children than mothers are (Hoff-Ginsberg & Krueger, 1991; Tomasello & Mannle, 1985). On the other hand, later-born children may be advantaged in the development of skill at using language for some social purposes, particularly negotiating multiparty conversation because they have both the opportunity to learn these skills bounded on their need to do so (Barton & Tomasello, 1994; Dunn & Shatz, 1989).

Thus, the previous literature on birth order has not been consistent in the findings of birth order-related differences in the nature of maternal speech, but it has suggested that first borns hear more speech directly addressed to them than later borns. Thus, although existing evidence indicates that birth order influences language experience and language development, there is relatively little known about the nature of that influence.

1.2.2. Pragmatic development in children's language development

There has been a considerable amount of research on early child language development focusing mainly on syntactic, morphological, and lexical development. While all of these developments are crucial steps to an adult-like language system, children in the second and third year of life also show enormous development in the kinds of communicative intentions they express. However, the research on the development of communicative intents has been neglected.

As Fletcher and Garman (1986) claim, one ability in which children are very precocious is the ability to understand social acts - to distinguish among directives, descriptions, prohibitions, offers, and requests for information. Children, even the prelinguistic child in the early stages of language acquisition, will have no trouble using pragmatic differences among utterances as one basis for sorting out their formal differences. Furthermore, children are more socially than linguistically precocious - they come to language learning with a good understanding of what constitutes communication. Accordingly, children are capable of interpreting many adult responses other than explicit correction or total failure of comprehension as negative feedback. Any response that reflects a need to negotiate about the exact meaning of the child's utterance is negative feedback.

> Speech acts such as request, protest, and greeting are some of the children's communicative acts produced very early while speech acts such as promise, persuasion develop later (Astington, 1988). Children's capacities to express communicative intentions verbally shows similarities with their cognitive abilities and their social understandings. As Ninio and Snow (1996) state, children need to learn how to formulate their social moves through language in a form

> interpretable by their interlocutors and to interpret correctly the interpersonal significance of others' verbal overtures, which has been classified as "pragmatic development." (Ninio & Snow, 1996, p. 5-6)

It has been claimed that a complete picture of language development would incorporate a description of how children's capacities to express communicative intents in interaction with familiar adults grow (Snow, et.al., 1996). This claim leads to several questions; such as: a) how many and which communicative intents are expressed at various ages or stages of language development? b) how are they expressed, nonverbally or verbally? autonomously or only with considerable support from the interlocutor?

In addition, prior research findings reveal that infants are highly socially interactive, differentially responsive to social and non-social stimuli, and able to produce behaviours which are interpreted as explicitly communicative by adults (Snow, 1977; Trevarthen, 1977, 1979; Trevarthen & Hubley, 1979). These findings have led to the characterisation of children as "pragmatically precocious" (Ninio,1993; Ninio & Snow, 1988). The very earliest intentional communications are likely to be expressed through gestures and vocalisations rather than through conventional linguistic forms. Even during the one-word speech stage, much of the children's repertoire is likely to be idiosyncratic (Snow, et.al., 1996). Children's use of the speech act repertoire in communicative interaction grows faster between 12 and 22 months of age than between 22 and 32 months (Ninio & Snow, 1996).

1.2.3. Defining the domain of pragmatic development

Children need to learn how to formulate their social moves through language in a form interpretable by their interlocutors and to interpret correctly the interpersonal significance of others' verbal overtures. Pragmatics is a branch of linguistics concerned

with speech use, and studies of pragmatic development are concerned with how children acquire the knowledge necessary for the appropriate, effective, rule-governed employment of speech in interpersonal situations. Generally, like developmental psychology, studies of pragmatic development address the following types of questions:

> What is the age of onset of particular skills?
>
> By what processes are these skills acquired by the child?
>
> What factors influence the speed and order of acquisition of these skills?
>
> What sorts of individual differences emerge? (Ninio & Snow, 1996, p.7)

Children have to learn how to use language in order to make statements, to ask questions, to request, to greet, to refuse, and so on; these are the so-called illocutionary speech acts. Ninio and Snow (1996) claim that these are manifest communicative acts for which a speaker expresses a willingness to be held accountable and which are furthermore characterised by the presence, at least some of the time, of overt linguistic markings, such as the interrogative grammatical mood for questions.

Most studies of how children are thought to speak in pragmatically appropriate ways include background information on the social structure and familial arrangements of the society under the study; many provide information about social and personality development, not just about using directives, selecting forms of address, and other such linguistic politeness rules. According to Ninio and Snow (1996), pragmatic development includes the following domains:

1. The acquisition of communicative intents and the development of their linguistic expression, including the conduct of communication prior to the emergence of speech-that is, by vocalisations and gestures.
2. The development of conversational skills and the acquisition of rules that govern turn-taking, interruptions, back channelling, signalling topic relevance or topic switch, and so on.

3. The development of control over the linguistic devices used to organise discourse in ways that are cohesive and genre-specific.
4. Pragmatic learning processes that operate in children's entry into language, such as the acquisition of novel linguistic forms by pairing them with their inferred communicative function rather than with their semantic meaning.
5. The acquisition of rules of politeness and other culturally determined rules for using speech.
6. The operation of pragmatic factors in the acquisition of deictic forms such as pronouns and deictic locatives.
7. Pragmatic factors influencing language acquisition, such as the interactive context of language use in early childhood; and pragmatically based explanations for otherwise puzzling acquisition biases. (p.13)

1.3. Research questions

In this study, the following research questions will be investigated. We will not form any hypothesis in order not to indicate any estimation about the results of the study. According to Fraenkel and Wallen (1990), when a researcher formulates a hypothesis, it means that expectations concerning the variables of the study are indicated.

1. Are there any differences in language use among the children depending on whether they are first born or later born?
2. Are there any differences in language use among children depending on whether they are male or female?
3. Does birth order affect the rates of pragmatic development?
4. Do gender differences affect the rates of pragmatic development?
5. Is there a relationship between birth order and gender in Turkish children's language development?

CHAPTER 2

REVIEW OF LITERATURE

This chapter starts with a review of pragmatic development in language acquisition in particular. It gives information on the domain of pragmatic development, children's communicative uses of speech throughout language development, and the pragmatic use of early speech in child language. This study explains the acquisition of communicative acts and children's communicative act repertoires. Thus, it gives information about the relevant studies of pragmatic development.

2.1. Defining the Domain of Pragmatic Development

Pragmatics is the branch of linguistics concerned with speech use, and studies of pragmatic development are concerned with how children acquire the knowledge necessary for the appropriate, effective, rule-governed employment of speech in interpersonal situations. Generally like developmental psychology, studies of pragmatic development address questions like the following kinds:

- What is the age of onset of particular skills?
- By what processes are these skills acquired by the child?
- What factors influence the speed and order of acquisition of these skills?
- What sorts of individual differences emerge? (Ninio & Snow, 1996, p.7)

Obviously, development does not consist only of learning to avoid violations, such as interrupting a speaker, telling a joke or an anecdote twice to the same person, dominating a conversation, using direct demand forms in social relationships where polite requests are expected and vice versa, and failing to greet acquaintances. Before children learn in which social situation it is appropriate to emit a direct demand and in

which a polite request, they have to understand what demands and requests are and learn the verbal forms for their expression. Furthermore, children need to learn how to formulate their social moves through language in a form interpretable by their interlocutors and to interpret correctly the interpersonal significance of others' verbal overtures. The acquisition of these skills is the topic of the pragmatic development.

Children have to learn how to use language for communicative functions, such as making statements, asking questions, requesting, greeting, and refusing. These communicative uses of language are called illocutionary speech acts. Ninio & Snow (1996) name these illocutionary acts as communicative acts since there is a willingness on the part of the speaker to be understood by the listener during the communication.

Most studies on children's pragmatic use of language include background information on the social structure and familiar arrangements of the society under the study. Furthermore, many provide information about social and personality development aside from the use of different communicative acts.

According to Ninio & Snow (1996), pragmatic development includes the following domains:

1. The acquisition of communicative intents and the development of their linguistic expression, including the conduct of communication prior to the emergence of speech-that is, by vocalisations and gestures.
2. The development of conversational skills and the acquisition of rules that govern turn-taking, interruptions, back channelling, signalling topic relevance or topic switch, and so on.
3. The development of control over the linguistic devices used to organise discourse in ways that are cohesive and genre-specific.
4. Pragmatic learning processes that operate in children's entry into language, such as the acquisition of novel linguistic forms by pairing them with their inferred communicative function rather than with their semantic meaning.

5. The acquisition of rules of politeness and other culturally determined rules for using speech.
6. The operation of pragmatic factors in the acquisition of deictic forms such as pronouns and deictic locatives.
7. Pragmatic factors influencing language acquisition, such as the interactive context of language use in early childhood; and pragmatically based explanations for otherwise puzzling acquisition biases. (p. 13)

2.2.The Communicative Uses of Speech

It is commonly recognised that the interpersonal use of speech involves three types of knowledge that go beyond the rules of syntax and semantics. Speech is used to perform social acts such as to greet, to request, to regulate an activity with a companion, or to draw another's attention to something. The most important developmental task in the domain of pragmatics, according to Ninio & Snow (1996), is learning to use speech for the performance of such social-communicative acts.

These acts consist of the intentional and overt communication of some content to another person. From a developmental point of view, two questions are of interest: What type of communicative intents can children express at various ages, and by what linguistic means do children express these intents at various points of development? The two questions are often confounded in discussions of pragmatic development. Developmental trends in types of speech acts produced by children are seen as reflecting their growing linguistic ability rather than their increasing mastery of the contents being communicated. Children's verbal expression of communicative intents undergoes development throughout their early years, and according to the research in the field, there should be an age-related development in the kinds of communicative intents children can control. However, the production of verbal-communicative acts requires not only adequate verbal skills but also the mastery of a host of social-cognitive capacities. It has

been argued that the generation of verbally expressed communicative acts is a componential skill involving several different types of competencies. These include:

1. Intentionality of having the will to affect the addressee by some purposeful behaviour.
2. Control of communicative intentionality, that is, the formulation of intents concerned with achieving an understanding of a message by an addressee.
3. Control of a range of different types of communicative intents, encompassing different types of social-cognitive and linguistic concepts.
4. The ability to express intents conventionally, effectively, and politely. (Ninio & Snow, 1996, p.16)

Each of these skills needs to be fully mastered to arrive at the complete adult control of verbal-communicative behaviour. In the case of other component skills, such as social-cognitive concepts of various types, it is not necessary that children possess their full range to begin emitting intentional verbal communications. Since these component systems develop only gradually over the first years of life and may even continue to develop in mid-and late childhood, they may cause age-related limitations in the range of communicative intents mastered.

Furthermore, Ninio (1988) states that children's ability to understand the social-cognitive concept underlying some type of communicative act is not independent of the mastery of the verbal forms by which that act is typically expressed in their environment. Therefore, the limitations of children's linguistic knowledge at any developmental stage put additional constraints on the kinds of speech uses they can understand and come to produce on their own.

The researchers imposed two criteria, one formal and one functional, in order to consider an utterance meaningful in language use. First, the expression used has to be verbal and not merely vocal. It consists of conventional or semi-conventional forms accepted in the speaker's speech community. This criterion distinguishes between

language and nonlinguistic vocal productions. Ninio (1984) asserts that meaningful speech involves the use of a conventional and arbitrary vocal code. However, some claims that it is difficult to apply this criterion in practice. Second, the utterance is amenable to interpretation by its addressee as an intentional social or communicative act. Communication is by definition an interpersonally construed social phenomenon. It does not consist of the mere emission of informative signals a listener can interpret; for instance, as Ninio & Snow (1996) state, "if one's interlocutor suddenly pales and starts to buckle at the knees, he is certainly emitting an informative signal about his current state of health but one that would not be strictly interpreted as the production of a communicative act on his part." (p.19).

2.3. Prelinguistic Communication and the Transition to Speech

2.3.1. Prelinguistic Development

2.3.1.1. Prelinguistic Communicative Abilities

For many decades developmental psychologists believed that the first period of life was characterised by mental chaos (Ninio & Snow, 1996). This view has been rejected with the help of methods that provide much more precise information about infants' perceptual and cognitive capacities. However, there is now evidence that infants are surprisingly mature organisms who perceive the world very much like adults (Astington, 1988). For instance, new-borns exhibit an organisation of time that is similar to that of adults; they are able to learn precisely how long to wait between sucking bursts to be reinforced by hearing a single female voice (DeCasper & Spence, 1991). Furthermore, the visual and auditory worlds of infants are in no sense bizarre. Infants reach for objects they can see (Bower, 1966); they turn their heads to the direction of a sound (Mendelson

& Haith, 1976); they even imitate others' facial expressions (Meltzoff & Moore, 1977). They possess the basic qualifications for constructing a view of the world that fundamentally resembles that of adults. They possess a large repertoire of socially significant behaviours and tendencies, including crying, smiling (Ahrens, 1954), a preference for the sight of the human face (Johnson & Morton, 1991), and a preference for watching humans over other types of motion (Bertenthal, et.al., 1985). Even if these behaviours are the result of very rapid learning rather than of prewired dispositions, infants are singularly prepared to conduct a social life.

Investigators of early social behaviour generally agree that infants' precocious social understanding enables them both to produce intentional communicative signals and to interpret the significance of social signals, actions, and events in their environment well before they can talk or understand speech. Some authorities believe that the possession of communicative intents and the interpretation of others' intents are such basic human capacities that they are biological dispositions or universals (e.g. Dore, 1985; Miller, 1970; Trevarthen, 1979). Without adopting this extreme view, Ninio & Snow (1996) claim that children have not mastered the complete range of interactive moves in early infancy. Like other higher capacities, social abilities are skills that develop gradually, requiring at the onset considerable contextual support even for their less complex manifestations.

2.3.1.2. Communicative Intents Expressed in the Preverbal Stage

Children pass through a stage of producing expressive vocalisations before they start using sounds for intentional communication. The earliest expressive vocalisation is crying. However, by the middle of the first year infants control an impressive repertoire

of expressive vocalisations. These vocalisations are specific in that they reflect the infant's emotional state- for example, surprise, frustration, joy at the appearance of a familiar person- or communicative intents, such as calling someone or demanding an object. Furthermore, these vocalisations are similar enough across normally developing children that mothers can easily identify the situation in which an unknown infant was recorded, even including infants from unfamiliar language environments (Ricks & Wing, 1975). Snow (1977) states that preverbal infants age 8 to 10 months use intentional vocalisations and gestures, such as pointing, gazing, and giving for communicative purposes. However, there is little systematic information about the social meanings expressed in these acts.

Several studies categorised infants' non-verbal illocutionary-type communicative acts produced in dyadic interaction with adult caretakers. Bates, Camaioni, & Volterra (1975) described two broad categories of pre-verbal expressions, both identified as precursors to speech acts later performed verbally. Pointing to objects, giving objects, and other acts designed to direct adults' attention were called proto-declaratives, the precursors to statements. A second category of studies focused on infants and already-talking toddlers interacting with peers, a situation that generated an expanded list of social meanings expressed by preverbal and early non-verbal communicative behaviours (Bronson, 1981; Dunn & Kendrick, 1982). In peer interaction, infants and young toddlers expressed feelings such as sympathy, communicated offers to share objects and activities, expressed compliance and non-compliance or resistance, and engaged in stage setting and pretend games. Thirdly, investigations have documented preverbal infants' gradually evolving participation in specific interactive formats, such as games of give-and-take and peek-a-

boo (Bruner, 1983; Bruner & Sherwood, 1976; Ratner & Bruner, 1978) or joint picture-book reading (Ninio, 1980; Ninio & Bruner, 1978).

Studies of infants playing games adopted a form of contextual analysis. In this approach, communicative moves are inherently embedded in a particular rule-governed interactive situation and are meaningful in terms of their role in that situation. Preverbal infants experience a relatively prolonged apprenticeship at such situations, during which they gradually increase their participation in these collaborative activities and perfect the necessary action repertoire (Camaioni & Laicardi, 1985). Infants' gradual growth in understanding such interactive formats, and their evolving ability to collaborate actively in them, is seen as providing the true foundations of later meaningful verbal communication (Bruner, 1983).

Therefore, infants control an impressive array of social meanings and they can also convey them by non-verbal means. The full range of their abilities can be seen only by observing them in a variety of settings- with peers as well as adults and in adult-structured activities, as well as in unstructured interaction.

2.3.2. The Transition to Speech

Linguistic communication starts with words substituting for gestures, but the language system, once established, soon diverges from its non-verbal origins. Ninio & Snow (1996) illustrate that there are two hypotheses about this view. The first one is the continuity hypothesis. Some investigators have claimed that children's early language is continuous with their preverbal communicative system; that is, children acquire early verbalisations by substituting conventional, verbal forms for the non-verbal expressions for their communicative intents. This view implies that the communicative intents

expressed by their first words are identical to those expressed with gestures or vocalisations by the preverbal children. Obviously, those who deny preverbal infants' communicative precocity (Shatz, 1982) reject the continuity hypothesis. Others (e.g. Dore, 1975) take a more complex approach. Dore believes preverbal infants can intentionally employ a variety of means to express their wishes and share their inner states with others, but he does not believe the preverbal and verbal systems form a single, uninterrupted developmental continuum. Dore points out that linguistic expressions operate by two uniquely linguistic mechanisms, reference and predication, which do not exist in non-linguistic form. Therefore, he claims that verbal communication relies on language-specific means to express language-specific contents.

Dore objects to the claim by Bates, Camaioni, and Volterra (1975) that communicative acts children perform nonverbally prior to the emergence of language have essentially the same status as verbal illocutionary acts. His major point of disagreement is with the notion that the later use of verbal expression involves merely the substitution of verbalisations for prior non-verbal behaviours (Dore, 1978). Relying on Searle's (1969) Speech Act Theory, Dore argues that illocutionary acts incorporate a grammatical component that preverbal communicative acts obviously lack. He concludes that prelinguistic communicative skills are necessary but insufficient for the acquisition of linguistic communication, and that by themselves, developments in the pragmatic domain cannot provide an explanation for the emergence of speech. Dore considers children's gradual mastery of types of communicative intents to be a separate line of development of language proper, neither influencing the other. In fact, Dore dismisses

not only preverbal communication as irrelevant to true illocutionary act production but most of single-word speech as well.

Ninio and Snow (1996) claims that there is considerable continuity between pre-verbal and verbal systems because many of the intents children express with their first words are identical to those previously expressed by non-verbal means. Thus, children can master the principles of intentional communication, as well as the specific social-cognitive concepts underlying some of their earliest verbal utterances, prior to acquiring verbal means for expressing their intentions. On the other hand, some early utterances express communicative intents that are novel and difficult to express nonlinguistically. A preverbal child can act out a pretend role, for example, play mommy by mimicking the actions of getting dressed and leaving for work, but cannot announce or declare that she is playing mommy without language.

The second hypothesis is the discontinuity hypothesis. This hypothesis claims that although beginning speakers possess communicative intents, they express these with the intention of non-verbal behaviour. In this model, early speech does not have an intentional source, expressing some mental content. Rather, words are situational, having the characteristics of conditional responses that are elicited by the occurrence of highly specific physical and behavioural situations (Barrett, 1986; Harris, 1993; Harrison, 1972; Lock, 1980; McCune-Nicolich, 1981). The proponents of these ideas do not deny that 10 to 20-month-old children have communicative intents. However, since these intents are not expressed in children's early words, they see no continuity between preverbal communication and language.

According to this theory, the concepts underlying early words are representations of external events; from these, true word concepts develop through the gradual elimination of spurious situational elements, so the conditions of use are extended to a wider and wider range of situations. Communicative intents have no role in this development; they do not form part of the early event representation underlying the production of an utterance or part of the later decontextualised word meaning (Barrett, 1986). Thus, even though the ability to communicate exists both pre-verbally and after the onset of language, prelinguistic communication is noncontinuous with the linguistic system proper, which is based on situational meanings and develops as a system of decontextualised linguistic signs. Thus, for older children words have a meaning that is independent of their potential occasions of use. In some further unspecified development that is not part of language acquisition, utterances eventually become the true carriers of communicative intents.

2.4. The First Stage of Speech Use

There is a surprising lack of agreement among the different investigators about the nature of the earliest speech uses. For example, Camaioni and Laicardi (1985) report that all of their subjects' first linguistic utterances were produced within game formats, whereas Barrett (1981), Dale (1980), Dore (1974), Griffiths (1985), and McShane (1980) report no verbal moves in games among the early speech behaviours they observed.

Five types of early speech use emerge as problematic in conforming to criteria of meaningful communicative acts, as Ninio & Snow (1996) state. These are:

(1) labelling and other 'language practice' utterances;
(2) speech addressed to the self;
(3) the performance of moves in games, for example, saying *boo* in peek-a-boo;
(4) expressive exclamations, for example, *eh!* expressing surprise;

(5) imitated rather than spontaneous utterances. (p.46).

Labelling: Halliday (1975) excluded all utterances used for object labelling and other forms of language practice from consideration in his functional categorisation of the early speech uses of his son, Nigel. In Halliday's approach, learning a system does not qualify as using that system, and thus, practice utterances cannot be categorised as language uses in the strict sense. Halliday views it as paradoxical to treat learning language as one of the proper functions of language.

Self-addressed speech: Wells (1985), who carried out an extensive investigation of the development of pragmatic abilities in a large sample of children, made a clear distinction between speech addressed to the self and speech addressed to another person. He placed all "self talk" in a separate category from the 'interpersonal uses' he analysed for pragmatic meaning. Thus, in determining order of emergence of communicative meanings, Wells excluded utterances addressed to the self from the database. For example, a child giving herself directions for performing a task was not coded as producing a directive, and a child labelling referents for herself was not coded as labelling; these utterances were thus excluded when computing the order of emergence of requests or of the criterion that true communicative language must have an addressee who is different from the self. Similarly, Barrett (1981) acknowledged Private self-guiding and Private labelling as separate categories of speech use.

Verbal moves in games: as mentioned previously, several investigators (Barrett, 1981; Dale, 1980; Dore, 1974; Griffiths, 1985; and McShane, 1980) did not report the production of verbal moves in interactive games, such as peek-a-boo or patty-cake, in any of their subjects at any of the ages studied. Indeed, they did not have this category in

their coding systems. Others, chief among them Bruner and his colleagues (e.g. Bruner & Sherwood, 1976; Ninio & Bruner, 1978; Ratner & Bruner, 1978), have extensively documented the presence of game-embedded verbal behaviours among the earliest speech uses in young children from cultural backgrounds similar to those in these studies. The absence of this type of speech use in their findings thus almost certainly represents a systematic exclusion rather than individual differences or sampling variation. Apparently, the production of verbal moves in games was not considered true language use because such utterances do not possess symbolic or propositional meaning and are more similar to social acts than to communicative acts in the strict sense.

Expressive exclamations: These are not reported either by Barrett (1981) or by Dale (1980). The category system used by Dore (1974) includes only one entry, Protesting, that could refer to a type of exclamation. Apparently, exclamations and other expressives were excluded by some investigators because the language forms used are semiconventional rather than fully conventional.

Imitations: Whereas Camaioni and Laicardi (1985), Dore (1974), and Wells (1985) have Repeating or Imitating as a type of speech act or interpersonal speech use, others studying the communicative or pragmatic meanings expressed in early speech have explicitly excluded imitations from their database. According to Greenfield and Smith (1976), imitations do not qualify as true meaningful speech uses because they can be performed without comprehension. Thus, the exclusion of imitations from studies of the pragmatics of early speech relies on the criterion that the speaker has full control of the semantic content of the utterance and the ability to produce the relevant utterance spontaneously.

Early utterances are borderline cases on several grounds in Ninio & Snow's (1996) terms:

1. The meanings they express tend to be social rather than, properly speaking, illocutionary, that is, they are mostly non-referential, playful, or ritual speech uses.
2. The expressions used tend to be marginal linguistic forms, such as vocatives, exclamations, or interjections, rather than members of major word classes, such as verbs, nouns, or adjectives.
3. Moreover, even when they do express genuine, pragmatically central meanings, such as requests, using real words rather than semiconventional vocalisations, beginning speakers generally use the most general pro-words, such as pronouns, deictic locatives, pro-verbs, and the like.
4. Some children use conventional lexical items with very limited, under extended meanings.
5. Rather than being interpersonal, early meaningful speech uses are often directed at the self rather than at another person.
6. Children's utterances are much more limited in semantic content than adult speech. For example, most early statements concern the immediately observed rather than the distant or the abstract.
7. Lastly, a significant proportion of early utterances are imitations of previous utterances by an interlocutor, rather than spontaneous productions. (p. 63)

According to Ninio & Snow (1988), children start to use speech meaningfully by first learning those form-meaning pairings that do not require simultaneous control of many different novel principles. These speech uses tend to be supported by familiar interpersonal contexts such as games; they involve unmarked general forms with a wide range of applicability; they involve types of speech uses appropriate for a novice user of the verbal-communicative medium (e.g. imitations, language practice, and self-directed speech). Children must acquire the linguistic system by learning independent linguistic signs; they cannot start with signs whose meaning depends on their relation to other signs because those other signs have not yet been acquired.

2.5. The Pragmatics of Early Speech

Children's earliest speech repertoire is limited, transitional, and imperfectly language - like on a number of counts. In fact, Ninio (1984) claims that children's earliest utterances are more like key words for certain interactive moves than fully specific speech acts. Thus, the social functions of children's earliest utterances are more salient than their pragmatic functions. It seems as if children start acquiring the pragmatic use of speech by establishing verbal control over two types of speech uses: a participant-act type and a mutual-joint attention regulator, taking care that the fundamental condition for intersubjectivity is fulfilled. Speech is more efficient than non-verbal communication in achieving the fundamental interpersonal aim of children, to gain and keep the attention of another person. If we want to speculate about the nature of biological preparedness for acquiring speech, its efficiency in producing intersubjectivity is a good candidate.

2.6. Developmental Trends in the Expression of Communicative Acts

The earliest meaningful speech uses, which are key words for particular communicative situations, are typically defined by individual language games and serve some fundamental interactive goals. It is assumed that people use a set of implicit encoding principles in mapping their communicative intents onto verbal expressions and in interpreting other's intents. As for children, as soon as they can produce speech that carries meaningful messages, they must understand some of these coding rules. Their utterances are amenable to interpretation because they conform to encoding principles; that is, they fall within the range of options acknowledged by the interpersonal code.

In the case of single-word utterances, the regularities consist of the strategies available for packaging communicative intents into single words in a way that makes it

possible to recover the speaker's intent without recourse to the much longer measure of explicitness offered by multiword sentences. Two major developmental trends can be identified in the expression of communicative intents in the single-word period. The first consists of children's moving from a constant to a variable style of mapping between their intents and verbal expressions. The second consists of moving from one-to-one mappings of communicative intents of utterances to the many-to-many mapping characteristic of adult systems.

Ninio & Snow (1996) explain that, at the onset of speech, children typically use a constant, key-word type of expression to express a certain type of communicative meaning. For example, the utterance *this* often serves as a request for any kind of object. During the single-word stage, children start to adopt more elaborate packaging strategies to verbalise the specific details of their communicated intents.

Children's early mapping style has sometimes been described as holistic, namely, a style in which the complete communicative event is packaged into words in an unanalysed and undifferentiated fashion. Analysis of communicative events into their component parts - objects, persons, locations, social moves - and the selective mapping of such components onto verbal expressions are thought to be beyond the cognitive capacities of very young speakers.

Children's early utterances do not, however, point to a general inability to analyse situations. Ninio (1993) asserts that even during the first period of speech use, mappings of intents to utterances are basically analytic. The earliest utterance, for example, bye-bye is used generally and appropriately from the beginning. The developmental phenomenon could be summarised as the abandonment of the key-word type of

expression as the sole mapping principle and the mastery of the principle that communicative intents can be mapped to speech by expressing their specific details.

The second developmental trend transforming single-word speech is children's mastery of the principle of many-to-many mapping of communicative intents to verbal expressions. This uniqueness principle is limited in two ways: First, the realisation of a particular communicative intent is limited to a single fixed form but not to a single rule. Second, the uniqueness principle is asymmetrical; that is, it does not limit children to a single intent per verbal form. The same words (e.g. *yes*) appear as legitimate expressions of several different intents in the same children.

Ninio (1991) claims that the mastery of variable mapping and multiple mapping occurs at a period in children's language development characterised by rapid changes on a number of dimensions. Within a short time, multi-word utterances begin to be acquired, signalling the onset of syntax.

2.7. The Acquisition of a Verbal-Communicative Repertoire

Children's verbal communicative skills continue developing. Very young children's use of language is rudimentary and inefficient; it needs to undergo considerable expansion and refinement to reach the level of proficiency exhibited by adults with even average pragmatic skills. These developments during childhood years include expanded range and variety of verbal-communicative acts, increased interpretability of communicative acts, decreased reliance on non-verbal means to express intent, expanded mastery of a variety of mapping rules and encoding strategies, and increased effectiveness of speech act use resulting from a more flexible use of pragmatic resources, greater conventionality of expression, and improved politeness.

2.8. General Trends in The Order of Acquisition of Communicative Acts

The very first acquired speech variations are the achievement of mutual attentiveness and markings of participation in game like interactions. Other types appear only after children have had a period of apprenticeship in the verbal performance of these simplest interactive moves.

After the participant or performative speech uses, the next major accomplishment is the mastery of the moves involved in action negotiation and discussion. In this stage, children turn their attention to the strategies of initiating a communication: The first is the interpersonal consolidation of plans of action through directives and responding to these directives. The second is the production statements and questions about some state of affair and responses to those questions. The last and most important type they master is the request for clarification of another's communication. Such moves represent a meta-communicative function in which speech does not relate directly to the interactive context but relates reflexively to communication itself.

The first verbal moves to appear are those that merge completely with the interactive context of talk: they are the context; they enact the context rather than using it as a background for talk. Verbal moves in games are clearly context enacting (Ninio & Snow, 1996), but so are the very earliest calls, responses to calls, and attention directors. The next communicative acts to appear involve some withdrawing or distancing from the present situation. These include descriptions of the immediate physical context or negotiations about the immediate future course of the interaction. Ninio and Snow point out that meta-communication further removed from the ongoing action and requiring reflection on the communication occurring and not just on the physical or activity

context, emerges even later. In other words, the degree of context embeddedness or, conversely, context independence is a decisive factor in the ordering of acquisition of different types of communicative acts. The more closely they are related to the immediate context, the earlier communicative acts appear.

2.9. Developments in the Elicited Verbal Behaviour System

Speech acts designed to elicit both specific verbalisations from the addressee and responses to these are common and widespread in adult-child talk, although they are rare in adult-adult discourse. Ninio & Snow (1996, p.88) state that four types of speech-elicitation formats can be distinguished. First, eliciting moves include requests for imitation, either explicitly expressed (e.g. "daddy") or consisting only of the model with imitation-eliciting intonation (e.g. "daddy!"). The second type includes requests for onomatopoeic sounds (e.g. "How does the clock go?"). A third game-type speech-elicitation format involves requests for the completion of texts of songs and poems (e.g. Pat a...., ring-a-round-a...). A related subtype, requests for the completion of words and sentences (e.g. This is the kitty...., waiting for cat), is a coded Discussions subsystem, because such requests, rather than being part of a game, typically occur during discussions- for example, book reading- when the child's response is delayed. All four subtypes are similar in that correct responses do not require control of the semantics of the words produced; it is sufficient for the respondent to come up with the correct sound pattern.

Ninio & Snow (1988) examine responses before elicitation requests in different terms. First, children learn to emit responses to speech-elicitation moves within their first two years, but they do not learn to emit the requests eliciting speech until later. Children

obviously understand the requests as soon as they start to respond correctly to them. The reason of this developmental asymmetry between requests and responses in the speech-elicitation system is that first there are clear differences between the status or social roles of adults and children in interaction. Adults are typically the ones to make requests of children, and children ideally are the ones who comply. The adults are experts, while the children are the apprentices. These elicitation requests form part of adults' didactic efforts to get children to talk. Since children do not have to teach their mothers to name things or to pronounce words correctly, they do not learn to produce the relevant requests. Development is driven by the interactive needs of children at a particular stage in their lives.

In addition, children do not learn to emit the elicitation requests they can respond to because of a real difference in the linguistic complexity of requests and responses. Speech-elicitation requests are typically multiword utterances; responses are typically single words. Apparently, with a great deal of contextual support, children can get enough of the sense of a two-word request like *say "daddy"* to respond by saying *Daddy* or of a query like *What do doggies say?* To respond *Haw*. But to produce request utterances requires a type of syntactic knowledge children simply do not have at this stage.

To summarise, responses precede elicitation requests and are used more often and more consistently by children in this period of development. However, children also learn to play the eliciting role typically taken by adults in these formats, although with a developmental lag.

2.10. Developments in the Marking System

Ninio & Snow (1996) assert that expressive exclamations and markings of events are, like game-verbalisations, nonsymbolic, nonpropositional speech uses, context-construing, or performative in character. Although they are clearly meaningful speech uses, they are rather like conditional responses; whenever a certain class of event occurs, it is appropriate, perhaps obligatory, to produce the related verbalisations. As observed (Ninio & Snow, 1996), markings are among the earliest-acquired speech acts. Children under two years acquire many of these very simple forms of speech. However, many types of exclamations, markings of events, and politeness formulas are not acquired by children in their first two years. It appears that two different factors determine the acquisition of speech uses in this communicative subsystem. One is the role appropriateness of the relevant communicative move for young children. The other is the complexity of the social concept underlying the communicative act.

2.11. The Effect of Role Appropriateness

Children learn conventional exclamations expressing their distress or disapproval and their surprise at, or enthusiasm for, some event in the environment. These are very similar to the two earliest-produced acts, calling and attention directing, in their interactive purposes. Young children's signals of distress, protest, and surprise are entirely role appropriate.

According to Ninio (1991) children in this age group, however, have not learned some exclamations expressing positive emotions toward another person, such as conventional endearments or expressions of comforting and commiseration, although these forms are used frequently by their mothers. Children acquire egocentric

exclamations, those that reflect their own needs and interest, but not other-oriented exclamations used to please, comfort, or calm the addressee. These concerns are apparently beyond the social duties of young children.

Children also learn the markings that draw the others' attention to themselves and to their acts: Mark transfer of object to hearer; Thank, used most often upon being given an object; Mark completion of action; Mark exertion of effort or to surprising events that have attracted their own attention. Children do not learn markings, modelled frequently, of events to do with the other person (politely wishing a good appetite, politely blessing on sneezing...), an act that prevents dissolution of intersubjectivity because of an extended silence. Once again, these acts are other-oriented, and their function is to help the addressee or the dyad to deal with some situation; the more mature participant takes responsibility for producing them.

2.12. The Effect of Complexity of the Underlying Social Concept

Young children also do not acquire politeness routines or culturally specific, socially required markings that require an understanding of culturally valued events or rituals. The social/cultural underpinnings of these markings are apparently too complex. Many do not even occur in mother-child interactions with children this young, although some mothers make half-hearted teaching efforts to introduce the concepts or the formulas to the children. These include congratulations, for example, wishing someone a happy birthday or a happy anniversary.

"The children acquire only five politeness formulas: (1) Thanking, (2) Polite response to thanking, (3) Greeting on meeting, (4) Greeting on parting, and at the end of this period and with a much lower frequency, (5)Apologising." (Ninio & Snow, 1996,

p.42). Thanking occurs in this age range exclusively as a response to the transfer of objects to the child; children do not thank people who provide other types of services, like buttoning a coat, putting them in a high chair. Bruner (1983) points out those children initially use *thank you* or *ta* indiscriminately to mark passage of an object between another person and themselves; that is, for both giving and receiving.

In summary, factors affecting the order of emergence of the simplest communicative acts-namely, elicited verbalisations, exclamations, and markings-include the pragmatic importance of the act for the conduct of interaction and communication, the role appropriateness of the act for young children, the centrality of the child in the event being marked by the act, the relative complexity of social concepts underlying the act, the phonological skills necessary for the act, and the linguistic difficulty of the expressions used in producing the act.

2.13. Developments in the Discussion System

Discussions are topic-specific exchanges of representations of some state of affairs, consisting of statements, questions, and replies. Children master the most basic speech acts used for the conduct of discussions relatively late. Children control the central moves of the apparently more fundamental attention-negotiation, exclamation, marking, and game-sound systems and many acts within the action-negotiation system well before they start to produce statements about a joint focus of attention. Exchanging descriptions is apparently not among the most natural pragmatic uses of speech. Ninio & Snow (1988) state that development in the discussion system gains momentum in the middle of the second year, when children start acquiring the full variety of speech acts out of which discussions are built and begin using them for a variety of topics.

Machado (2003) indicates that disscussing joint focus starts by 10 months of age:

> By 10 months, an infant has developed intentional communication and willingly shares his emotions, his intentions, and his interests in the outside world. To do this, he has to establish joint attention. In other words, he has to be sure that both you and he are focused on the same thing, and he does this by: getting your attention, letting you know what he is communicating about, keeping his attention on both you and the topic by looking back and forth. (p.56-57)

The more a discussion is contextualised or built on a joint perceptual focus, the earlier it is participated in verbally by young children. Thus, Snow (1977) claims that perceptually present external objects and events are talked about earlier than perceptually present but internal events, which in turn are discussed before invisible or absent objects, events in the distant past and future, or hypothetical or abstract states of affairs. The ordering is rather obviously determined by the conceptual and linguistic complexity of introducing the relevant topics; achieving convergence on an internal state or a distal topic is a much more difficult matter than reaching convergence on a perceptually salient object (Ninio & Snow, 1996).

At the earliest stages, rather primitive speech uses qualify as "statements" in discussions. Thus, children's first discussions of a joint focus of attention consist of object labelling, the earliest of which are pro-forms, like *this* and *there*, rather than true names. Similarly, early discussions of nonobservable inner states and feelings consist of a few stock expressions, like hot and cold, afraid, sad, angry, and the like, all related to children's states and feelings, not the mothers' (Ninio, 1984). Even when children took part in conversations of coded discussions of the addressee's inner state, their participation consisted of answers to inquires mothers made about how the children felt. As with markings, the forms acquired to discuss internal states express meanings in

which the children themselves are central. Ninio (1988) points out that discussions of a recent event also involve a limited set of expressions, mostly describing negative events involving objects, like *broke, feel,* and *spilled.* Discussions of the nonpresent are limited to concrete objects and events and often rely on a shared experiential, if not physical, context (e.g. a child saying *Grandma* in the discussion of a past shared train trip). Young children do not engage in discussions of hypothetical or abstract topics. Despite these cognitive and communicative limitations, children participate in all major types of discussion by the age of two years, demonstrating their understanding that speech can be used to react to, reflect on, or describe objects and events.

2.14. The Acquisition of Questions and Answers

In addition to statements, the major constituents of discussions are questions and answers. For all types of questions-answer pairs, answers are consistently acquired before the matching questions.

Children learn to ask questions before they begin to request completions or imitations. Ninio (1991) claims that this may be because questions can be expressed in single-word utterances; whereas speech elicitations cannot. Speech elicitation requests demonstrate possession of knowledge, whereas questions are procedures for acquiring knowledge. Children are understandably less motivated to play elicitation games with their mothers than to acquire new knowledge. Speech acts, like agreement and disagreement, are optional rather than obligatory responses to statements. Furthermore, mothers interested in conversational interaction exploit questions to generate responses from their children (Snow, 1977), so children have ample opportunity to produce answers if they know how. Since statements do not require a response, they are less effective

conversation starters. In addition, children may not really grasp at first that a statement has truth conditions, which it can be true or false, agreed to or disagreed with. Their own earliest statements are, indeed, indicators of interest and participation rather than true and therefore, debatable naming expressions.

The acquisition of questions and answers to questions takes many months. The first questions to be asked or answered are what-questions and yes-no questions, while their answers are mastered much later. Where-questions and who-questions and various types of answers precede why-questions. Semantic-cognitive factors clearly influence the order of emergence of these questions and answers; for instance, children at the age of 30 or 32 months have a very lazy grasp of time, quantity, and causality but a fairly good understanding of objects, persons, and space (Snow & Winner, 1994). Linguistic complexity also influences the acquisition sequence. Even though children acquire a wide range of speech acts for use in discussions before age two, by 32 months, they have not mastered even some relatively simple discussion acts used by mothers. Some speech acts modelled by mothers in discussions were practically never produced by the children. In her study Sofu (1998) has found out that children make use of the questions with few mistakes in terms of both structure and function at the age of 2. It has also been stated that "with respect to the regularity in Turkish syntax, Turkish children acquire question forms at an earlier age. Especially, the frequent use of question prefixes and pronouns enable children to communicate with their environments easily, to understand the world and develop their vocabulary storage." (Sofu, 1998, p. 97)

2.15. Developments in the Action-Negotiation System

The second central subsystem of communicative acts is the negotiation of immediate action. In the development of this communicative subsystem, it is possible to distinguish three broad stages, defined by their clustering in acquisition. It has been found out (Ninio, 1984) that simple communicative acts like *Making request* or *Direct addressee's action* do not appear. Such distinctions were not observed in the parents' speech; secondly, no general distinctions were made between a certain type of directive addressed to the interlocutor and the same type addressed to oneself.

2.15.1. The First Stage of Development: Recruiting Attention-Directing Skills

The first stage of development in action negotiations consist of the acquisition of types of communicative moves. According to Ninio (1984), in observational study, this step is completed at 12-14 months. At this stage, children learn to express six fundamental moves verbally: agreeing to and refusing someone else's proposals for action, initiating a novel activity +/- focused on an object, changing the object at the focus of an ongoing activity, and proposing objects to action. Children build their verbal action-management skills from the bottom up, starting with the most crucial functions.

The initial stage of action negotiation closely follows the acquisition of the very early communicative acts, negotiating mutual and joint attention. Apparently, the initial action-negotiation system is a direct extension of children's attention-negotiation system, which is a direct extension of children's attention-negotiation skills. As was observed in Keşli, 2001, a detailed analysis of children's early communication moves within the four action-negotiation interchanges that are acquired the earliest, which reveals that except for agreements to and refusals of the mothers' proposals, in the vast majority of cases,

this communication consisted of indications of objects the children wanted to be given to play with, elected as the next focus of an activity, wanted the addressee to act on within ongoing activity, or intended to act out on themselves. In other words, children's initial participation in action negotiations consists of their using their attention-directing skills to regulate joint activities.

2.15.2. The Second Stage: Regulating Joint Activities

Ninio (1984) expresses that the second stage includes types of speech uses children started to produce between 14 and 16 months but that did not reach criterion until 18 months. The novel functions that emerged included five that relate to the conduct of joint activities: suggesting the continuation, repetition, recursive extension, ending of activities, and proposing a preparatory move to an activity. Other functions that emerged at this stage were providing information necessary for the conduct of actions, warning against dangers in action, forbidding the addressee to perform an action, and specifying the action they want the addressee or themselves to perform.

Ninio states that the five activity-managing requests represent basic interpersonal intentions relevant to the regulation of joint action: Continue/Don't stop, Do it again, Do it more, Enough, and Prepare activity. Except for the initiation of novel activities, these are the most basic moves in the conduct of joint enterprises, such as games, meals, or getting dressed. Apart from these activity-related interactive functions, at the relevant stage, children also master the Request act, Ask/Give information necessary for action, Forbid, and Warn while acting functions (Keşli, 2001).

The interactive functions mastered at the second stage cannot, like those of the first, be accomplished by indicating a particular object to focus the activity on. The new

functions are no longer an application of attention-directing skills but constitute a true action-management system. Significantly, in the majority of cases, the unit of interaction to which children's talk related and which it attempted to regulate was the activity rather than some single, discrete behaviour. It was seen that pragmatic development started with children bringing under verbal control the most fundamental interpersonal transition, from lack of mutual attentiveness to mutual/joint attention (Ninio & Snow, 1996). Finally, it can be stated that such interactive intents can only be expressed if children go beyond the initial stock of semi words used for playing games and indicating interesting objects and events. The speech forms used to express a request for continuation, repetition, actions, and the like represent a considerable advance in children's vocabularies.

2.15.3. The Third Stage: Emerging Sophisticated Interactive Goals

In the third stage of development in action negotiations, eleven heterogeneous speech uses emerge. Newly emerging functions, in order, are request/propose a location for an action; offer next move, turn, role to addressee; demand role, turn, or move for speaker; explain reason for prohibition; request/propose to begin an action at once; request that addressee pause in action; declare pretend roles and identities; praise addressee for correctness of acts; ask for permission to carry out action; grant permission to perform action; request/propose manner of action. Ninio (1984) claims that these functions emerge rather suddenly at 18 months. For most of the children in the sample, this is the age at which they abruptly reorganise the system of principles by which they map their communicative intents to verbal expressions, moving from fixed to variable mapping and from primarily singular to primarily multiple realisation rules for the same

communicative intents. These novel principles for packaging messages into words constitute a considerable advance in children's linguistic ability; variable realisation rules mean the acquisition of a noun and verb vocabulary, and multiple mapping rules prepare for the onset of multiword utterances and syntax.

These linguistic advances also appear to have a direct effect on children's ability to participate in more complex talk interchanges, probably because of their enhanced capability to interpret utterances addressed to them. Children are able to make proposals specifying the location, timing, and manner of single acts and thus to direct action with considerably enhanced precision.

Expressions for offering and demanding moves, turns, and roles emerge during the third stage- the "YOU DO IT and I DO IT" functions (Ninio & Snow, 1996, p.100). Negotiations about who will perform an act reveal that the child can now separate the actor from the act; the negotiation takes the action as given. In stage two, children manage to isolate actions and the objects involved in performing them; in the third stage they can also separate the location, the timing, the manner, and the actor from the act itself. "Two developments occur within prohibitions. First, children now provide reasons for their objection to some act rather than just prohibiting it. Second, children can now direct the addressee to pause temporarily, as well as to stop entirely" (Ninio& Snow, 1996, p. 98).

Around this age, children also start to engage in pretend play 8Keşli, 2001). Finally, directives, the foundation of action negotiation, undergo considerable refinement during the third stage. In addition to producing basic requests and agreements to requests, children acquire the complexities of asking for and granting permission.

In addition to the stage-three acts, around this time, children also begin to participate in yet another novel verbal interchange dealing with the initiation of joint activities, initiate activity: open-ended question about the addressee's wishes. In this type of negotiation, one participant asks the other what s/he wants to do next. 18-month-olds typically do not ask, but do answer, such questions (Keşli, 2001). To participate in this kind of talk, children have to understand questions like *what do you want to do now?* and then to name the desired activity.

2.16. Developments in the Past Two Years

At 28 months, children master the communicative act *Give in, accept other's insistence or refusal function*, and *Promises* start to be used consistently at 30 months. Communicative intents used by a few children, such as *Threatening* or *Setting rules of turn-taking*, do not reach the criterion for general onset by 32 months (Ninio & Snow, 1996). These speech acts are relatively infrequent in maternal speech as well (Keşli, 2001). Finally, children never used the speech acts *Agree to do for the last time*, *Dare/challenge hearer to perform action*, and *Approve of hearer's or speaker's behaviour as norm appropriate* perhaps because these moves are role inappropriate for young children. Except for the four speech acts C*riticise, Disapprove, Give in, and Promise*, relatively little new was learned about action negotiation between 24 and 32 months. Ninio (1984) points out that the rapid expansion of the action-negotiation repertoire that characterised the second half of the second year slowed to a trickle in the following eight months because children were already producing most of the speech acts mothers used to regulate activity.

Wells's (1985) study, the only description of speech act development beyond age three, found very few new communicative acts after 32 months. The only ones were *Blame and Tale-tell* in the Expressive subsystem; *Social explanation, Moral explanation, and Psychological explanation* in the representational system; and *New topic marker* in statements according to content, not on illocutionary characteristics. Thus, their appearance represents an advance more in children's cognitive and semantic range than in their control of types of communicative acts proper. Well's study suggests that during the 32-60 month period, children do not significantly enlarge their communicative repertoire; instead, they learn the lexico-grammatical means for the full verbal realisation of previously acquired communicative intents. Wells study employs home observations; outside the home environment, children do learn new communicative moves, some of which are documented in studies by Dore and McDermott (1982) and Streeck (1983), on the pragmatics of classroom speech. At home, though, children appear to have acquired most of the interpersonal speech uses they will need by age two and a half.

In summary, the verbal- communicative system constitutes rapid, uneven growth between ages 0;8 and 2;8. By the age of two, children master most of the basic moves of the central communicative uses of speech, namely, discussions about various topics and the negotiation of action. As approved by many investigators, after the age of two, children start developing communicative skills to create a variety of situations in parent-child dyadic interactions. Ninio (1991) states that pragmatic skills are not easily separable from social-cognitive skills or from formal linguistic skills. The speech-use system interacts with the linguistic system when children's strategies for mapping communicative intents to words are recognised in the middle of the second year.

Children's mastery of variables and selective mapping of intents to words has a deep impact on both their linguistic abilities and pragmatic capacities. Therefore, the interface between the pragmatic system and social cognition is also crucial for the development of both systems.

2.17. Sibling Interaction and Socialisation

Observations indicate that children interact more positively and in more varied ways with their parents than with their siblings. Children also follow their parents' dictates more than those of their siblings, and they behave more negatively and punitively with their siblings than with their parents.

In some instances, siblings may be stronger socialising influences on the child than parents are (Cicourel, 1970). Someone close in age to the child, such as a sibling, may be able to understand the child's problems and be able to communicate more effectively than parents can. In dealing with peers, coping with difficult teachers, and discussing taboo subjects such as sex, siblings may be more influential in the socialisation process than parents.

2.18. Birth Order

Birth order is a special interest of sibling researchers. When differences in behaviour are found to correlate with birth order, they usually are explained by variations in interactions with parents and siblings associated with the unique experiences of being in a particular position in the family. This is especially true in the case of the first born child (Murphy, 1993). The oldest child is the only one who does not have to share parental love and affection with other siblings until another sibling comes along. An infant requires more attention than an older child; this means that the firstborn sibling

now gets less attention than before the new-born arrived. In one research study, mothers became more negative, coercive, and restraining, and played less with the firstborn following the birth of a second child (Dunn & Kendrick, 1982). Even though a new infant requires more attention from parents than does an older child, an especially intense relationship is often maintained between parents and firstborns throughout the life cycle. Parents have higher expectations for, put more pressure for achievement and responsibility on, and interfere more with the activities of firstborn children as compared to later-born children (Murphy, 1993).

Birth order is also associated with variations in sibling relationships. The oldest sibling is expected to exercise self-control and show responsibility in interacting with younger siblings. When the oldest sibling is jealous or hostile, parents often protect the younger sibling. The oldest sibling is more dominant, competent, and powerful than the younger siblings; the older sibling is also expected to assist and teach younger siblings. Indeed, researchers have shown that older siblings are both more antagonistic- hitting, kicking, and biting- and more nurturing toward their younger siblings than vice versa (Dunn & Kendrick, 1982). There is also something unique about same-sex sibling relationships. Aggression and dominance occur more in same-sex relationships than in opposite-sex sibling relationships (Murphy, 1993).

Given the differences in family dynamics involved in birth order, it is not surprising that firstborns and later-borns have different characteristics. Firstborn children are more adult-oriented, helpful, conforming, anxious, self-controlled, and less aggressive than their siblings. Parents give more attention to firstborns, and this is related to firstborns' nurturing behaviour (Murphy, 1993). Parental demands and high standards

established for firstborns result in these children excelling in academic and professional endeavours. It must be kept in mind that while birth order itself may not be a good predicator of children's behaviour, sibling relationships and interactions are important dimensions of family processes.

2.19. Gender

It is a general view that speech and language skills develop earlier in girls than in boys. Moreover, men and women have different speech styles. Sofu (2004) claims that "in the language development process, the child may have chosen toys, games; topics dictated by her/his genes or the immediate environment may have taught her/him to speak like a man or a woman." (p.1). In her study, Sofu (2004) has figured out that "mothers of children from different genres use relatively different linguistic forms in addressing their children which would, in the long run, shape the child's social and linguistic attitude." (p. 9)

Jennische & Sedin (2003) figure out that the development of speech and language skills have indicated better development in girls than in boys. Gender differences in interpersonal style have been observed as early as 3 years of age (Sheldon, 1990). For example, while preschool boys tend to use more direct and demanding communicative strategies with their peers, preschool girls typically use more polite and cooperative strategies (Black & Hazen, 1990).

There are continuing trends in these directions between the ages of 3 and 7 years. During shift to middle childhood, while girls become more competent in the use of collaborative strategies, boys remain relatively unchanged in their reliance on domineering influence strategies (Austin et. al., 1987).

Since language both reflects and creates gender divisions, examining children's language behaviour is an effective way to study gender-related differences in interaction. One approach to analyzing language is to look at the social or pragmatic functions of linguistics messages, known as speech acts. Furthermore, in the studies of pragmatic development in first language acquisition, there is not any study investigating the effects of gender on the pragmatic development.

CHAPTER 3

METHODOLOGY

The design adopted for this study is longitudinal. Longitudinal studies collect data about different times in individuals' lives, and across generations, linking evidence from different points in the lives of parents and children. This capacity to follow individuals through time and observe how experiences and behavior are influenced by the wider social and economic contexts in which they find themselves – and perhaps how they in turn influence those contexts – gives longitudinal studies a major role in understanding social change (Ruspini, 2000). According to Ruspini (2000), longitudinal research can address issues and support methods in ways that are impossible in traditional cross-sectional approaches. It is particularly valuable in a number of research areas:

- when the focus is directly on change and the phenomena are themselves inherently longitudinal – for example, the dynamics of poverty, employment instability, social mobility and changing social attitudes;
- when investigating causal processes – for example, the effects of unemployment on mental health or of child poverty on later life chances;
- when controlling for the effects of unmeasured fixed differences between subjects;
- when studying social change and needing to separate out age, period and cohort effects;
- and when establishing the effect of a 'treatment' by following an experimental or quasi-experimental design or comparing periods before and after the introduction of public policy.

This study has the focus of investigating the effects of birth order and gender on pragmatic development, the effects of child-mother dyads. Therefore, longitudinal type of design has been conducted to reach reliable results.

3.1. Subjects

The subjects of this study are four Turkish children who were chosen according to the following criteria. At the very beginning of the study, they were 18 months old, and at the end, they were 36 months old. As the main criteria for this longitudinal study are birth order and gender, of these four children, two are male, and two are female; one of the males and one of the females are first born, whereas, the other ones are later-born. The children were chosen from Turkish-speaking families having the same socio-economic status (middle-class families). The children had working mothers with a university degree. There was no evidence of hearing and speech impairment or developmental delay in any of the subjects, according to information given by the parents.

3.2. Data Collection

For this longitudinal study, all four subjects were videotaped at their home for duration of a 40 minute session while they were involved in certain activities, such as playing with a hand puppet, paper and crayons, story book, and toy house, supplied by the researcher, with their mothers. At the same time they were recorded by a tape recorder to eliminate the possibility of missing some parts of the conversations in the videotape. The videotaping was done every two months: the first video-taping was done when the children were 18 months; the second video-taping was done when they were 20 months, and so on. The last one was done when they were 36 months old; thus the data collection took 18 months.

After the video-taping sessions, the talks were transcribed. Transcripts of spontaneous speech from both the child and the mother during the 40 minute talks formed the basis of the data for the study. During the 40 minutes, the mother and child were involved in playing in their living room with four boxes, three of which were not available for the child; only one box was seen by the child at the very beginning. During this 40 minute period, the mother was asked to play with the child using the contents of four boxes and a toy house in sequence. Each box contained only one of the following items: a hand puppet, paper and crayons, and a book. The mothers were not informed about the time to be spent on each task, but were asked to have only one box open at a time, and to try to get in all three boxes, and play with the toy house in about 40 minutes. At all ages, all four children were engaged in the same activities.

3.3. Data Analysis and Coding Scheme

For the data analysis part of this study, the transcribed videotaped mother-child interactions were compiled into computer files using the transcription conventions of the "Child Language Data Exchange System" (MacWhinney & Snow, 1999). In these interactions, using the Inventory of Communicative Acts – Abridged (INCA-A, see Appendix A) (Ninio, et. al., 1991), each communicative attempt by each the child was coded on three levels:

- the level of interpersonally agreed-upon *Interchange:* one or more rounds of talk, all of which serve a unitary interactive function,
- the specific communicative intent-S*peech act:* an act that a speaker performs when making an utterance,
- *Interchange-Speech act combination* types.

Types of Interchange, Speech Act, and Interchange-Speech Act combinations produced by each child were generated using the CLAN programs from CHILDES. This information provided us the basis for quantitative analyses for a description of emerging communicative attempts. Quantitative measures for this study included: the proportion of communicative attempts that were interpretable (codable) on at least the Interchange level; the number of Interchange types, Speech Act types, and Interchange-Speech Act combination types. The Interchange-Speech Act combination measure was taken as Pragmatic Flexibility, the use of different speech acts in different interchange types, which had been taken as a sign of pragmatic development.

The coding system used in this study was the Inventory of Communicative Acts-Abridged (INCA-A), a shortened and modified version of the system developed by Ninio and Wheeler (1984). Ninio and Wheeler's system was based on the Speech Act Theory of Austin (1962) and Searle (1969) and on the studies of face-to-face interactions emphasising the importance of socially constructed communicative interchanges (Ninio & Snow, 1996). An interchange is defined as one or more rounds of talk all of which serve a unitary interactive function implicitly agreed upon by the interlocutors. Within this social interchange, speakers express specific intents at the utterance level. INCA-A (Ninio, et.al., 1991) was developed for the study of major speech uses in developing children. The INCA-A version groups interchanges into wider categories according to the type of speech use, and eliminates most distinctions-based contextual arguments. For instance, all negotiations of immediate action were grouped into a single category, without making any distinction among the negotiations and the acts within the activities. Similarly, all marking interchanges (except *Greetings* to avoid redundancy) were grouped

into a single category without any distinction in the event marked (including thanking, apologising, blessing on sneezing, congratulating, or marking the completion of an action).

On the other hand, further subdivisions were introduced into the interchange code such as *Discussions of nonpresent topics* in the INCA-A system, which was not maximally elaborated in the original coding scheme. In INCA-A, this category is separated into three more specific ones: (1) Discussing the related-to-present, (2) Discussing the nonpresent, and (3) Negotiating an activity in the far future. In consequence, INCA-A is better suited to the study of the development of decontextualised language use than the one introduced by Ninio and Wheeler (see Appendix A for the coding system). Since the system was designed to provide exhaustive coding of the communicative attempts expressed by children of varying ages, it can reflect development and continuity across a wide age range. Finally, it is important to note that the type of analysis employed is both communicative and functional.

In the data reduction**,** the levels of *interchange, speech act, interchange-speech act combinations* were taken as bases. These levels produced by each child and their corresponding frequencies were generated using the CLAN programs from CHILDES. This information provided the basis for quantitative analyses and for a description of early emerging categories of communicative attempts.

Quantitative measures of interest in this study included: the number of Interchange types, Speech Act types, and Interchange-Speech Act combination types produced by each child. The Interchange-Speech Act combination measure is referred here as pragmatic flexibility.

CHAPTER 4

DATA ANALYSIS

This chapter deals with the analysis of data collected from four Turkish children starting when they were 18 months and ending when they were 36 months. In the analysis, the Child Language Data Exchange System (Macwhinney, Snow, 1999) was used.

4.1. Results

The results will be reported in four parts: The summary quantitative statistics include the child-mother measures of communicative acts of first born, second born, and female and male children, the children's interchange repertoires, the types of speech acts children express in the different interchanges, and the interchange-speech act combinations that are most frequently used by each child in each time period.

4.1.1. The Summary Quantitative Statistics

In this section, we will figure out the total measures of the communicative acts initiated by the mother in their interactions.

4.1.1.1. The Summary Measures of First-Born-Child Communicative Acts Initiated by the Mother

Table 4.1 shows the summary measures of the first-born-female child and mother's speech acts, interchanges, and ratio of interchange-speech act combination types used in their interaction in the 40 minutes in each session.

Table 4.1. **Summary measures of the first-born-female-child communicative acts initiated by the mother**

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	62	444	0.098
20	65	456	0.134
22	76	578	0.187
24	121	897	0.209
26	143	865	0.203
28	141	734	0.174
30	184	908	0.210
32	193	910	0.211
34	223	960	0.239
36	243	978	0.244

As can be seen, as the child's age increases, the number of speech acts, interchanges, and interchange-speech-act combinations change; in other words, the use of these three types increases except for at 28 months at which point a little decrease occurred. In the measures of child-mother interactions, a steady increase has been observed. For instance, except for when the child is 28 months old, the number of speech act types used has increased as the age increases. When we look at one of the samples of the qualitative data of the child when she was 28-month-old (Example 1), the child's mother wanted the child to play with the ball, and the child did the action with a nonverbal behaviour as she threw the ball towards the toy house; there was not any verbal behaviour. Moreover, when the same action was asked from the child when she was younger (Example 2), the child did the action both with a verbal and nonverbal behaviour

as she said “go ball” while throwing the ball. The most important reason for this may be that at some points, children do not want to do the actions asked from them, and they may be passing from a stage in which they prefer not responding verbally, meanwhile responding nonverbally (Keşli, 2001) as was the case here when the first-born-female-child was 28-months old.

Example 1: (28 month-old)

MOTHER: Anneyle top oynar mısın bir tanem?

(“Would you play ball with mom, my dear?”)

CHILD: (nonverbal behaviour) She throws the ball towards her mother and wants it back.

Example 2: (22 month-old)

MOTHER: Hadi topla oynayalım annecim (“Let’s throw the ball to mom”)

CHILD: Top gitti (“Ball go”. Child throws the ball)

The child responded to each of her mother’s communicative attempts with a verbal behaviour as her age increased and her capacity to understand was larger than when she was younger. This indicates that the child’s nonverbal behaviours decrease as she gets older. In other words, it is seen that nonverbal communication decreases as the verbal communication develops parallel with age. When we look at the samples of the child’s qualitative data when she was 30 and 34 month-old, we can clearly see that development. Additionally, some of the reasons for this change can be based on the mother’s talk as well because as the child gets older, the mother has been observed to be using more complex sentences and words, as illustrated in the examples below.

Example 3: (30 month-old)

MOTHER: Elimdeki ne bir tanem? ("What's in my hand my dear?" Mother shows the toy chair)

CHILD: Bu sandalye ("This is chair.")

Example 4: (34 month-old)

MOTHER: Canım buraya bir bakar mısın neler varmış mutfakta? ("Dear can you look here, what is there in the kitchen?" Mother shows the table and chairs inside the toy house)

CHILD: Mutfak masası ve iki sandalye var. Masada tabak, çatal var. Yemek yiyecekler. ("There is a kitchen table and 2 chairs. On the table there is a plate and fork. They will eat food")

Table 4.2 shows the summary measures of the first-born-male child and mother's speech acts, interchanges, and interchange-speech act combination types used in their interaction in the 40 minutes in each session.

Table 4.2. Summary measures of first-born-male-child communicative acts initiated by the mother

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	52	214	0.078
20	55	206	0.034
22	46	178	0.017
24	51	197	0.049
26	56	195	0.053
28	58	204	0.074
30	64	218	0.094
32	73	210	0.098
34	96	260	0.123
36	123	278	0.164

In the male child's rates as opposed to the female child, until he is 24-26-months-old, there was a decrease in the number of speech acts, interchanges, and interchange-speech-act combination changes; in other words, the use of these three types continued to decrease until he was 30 months; and after he was 30 months, a significant increase occurs. For instance, when the child is 30 months old, the number of speech act types used increases suddenly from 58 to 64 and as the age increases an increase in the speech act types and also in the other two types is seen. When we look at one of the samples of the qualitative data of the child when he was 24-month-old (Example 5), the child's mother wanted the child to play with the ball, and the child replied nonverbally as he threw the ball. Moreover, when the same action was repeated when he was 32 (Example 6), the child replied verbally as well as nonverbally as he said, "I throw ball," while throwing the ball.

Example 5: (24 month-old)

MOTHER: Hadi top oynayalım oğlum ("Let's play ball my son?")

CHILD: (nonverbal behaviour) He kicks the ball towards her mother.

Example 6: (32 month-old)

MOTHER: Hadi topla oynayalım annecim ("Let's play with the ball.")

CHILD: Top attım ("I kicked the ball". Child throws the ball.)

The child responded to each of his mother's communicative attempts with a verbal behaviour as his age increased after he reached 30 months, and his capacity to understand grew as he became older. This indicates that the child's nonverbal behaviours

decrease as he gets older, as was the case with the first-born-female-child; however, the first born-male-child's language development is far beyond the female child. In other words, it is seen that also in first-born-male-child, nonverbal communication decreases as the verbal communication develops parallel with age. Moreover, the use of nonverbal behaviour in the male child is higher than the female's. When we look at one of the samples of the child's qualitative data when he was 20 and 30 month-old illustrates that there is a decrease in nonverbal behaviour and verbal development, and possibly the reasons for this could be based on the gender effect on language which indicates that females' language development is faster than males' (Hoff-Ginsberg, 1998).

Example 7: (20 month-old)

MOTHER: Bu ne canım? ("What's this dear?" Mother shows the toy dog.)

CHILD: Hav ("Barks.")

Example 8: (30 month-old)

MOTHER: Canım bak bahçede ne varmış? ("Dear, look what is in the garden?"Mother shows the dog in the garden outside the toy house.)

CHILD: hav hav, kőpek bahçede. (Barks and says, "The dog is in the garden.")

4.1.1.2. The Summary Measures of Second-Born-Child Communicative Acts Initiated by the Mother

Table 4.3 demonstrates the summary measures of the second-born-female child and mother's speech acts, interchanges, and interchange-speech act combination types used in their interactions in the 40 minutes in each session.

Table 4.3. Summary measures of second-born-female-child communicative acts initiated by the mother

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	74	511	0.146
20	75	499	0.139
22	83	589	0.197
24	102	678	0.211
26	133	775	0.243
28	162	801	0.249
30	181	912	0.267
32	221	1190	0.324
34	250	1530	0.349
36	275	1678	0.381

As is seen in the table above, there is a continuous increase in the number of speech acts, interchanges, and interchange-speech-act combination changes as the child gets older; in other words, the use of these three types increases in each period without any exceptions. When we compare the rates with that of the first-born-female, the effect of being a second born can be clearly seen. The reasons may be: the second born child is receiving more input and having more interactions, as well as being a female. For instance, from interviews with the mother, it is learnt that the child is exposed to more interactions with her older sister for a great amount of time during each day than she has with her mother. This child is looked after at home by a babysitter while her older sister goes to school part-time. After school, until their parents come from work, they play together, which enables the second born child to be exposed to more input, more interaction. Therefore, the rate of each type used has increased as the age increases.

Nonverbal behaviours were only seen in the first four sessions when she was 18, 20, 22, 24 months old. When we look at the interactions in the later ages, the nonverbal behaviours decrease, and more verbal behaviours are seen. For instance, when the child was 22 months old (example 1), she used few words in her interaction with her mother while playing with the toy house. However, the situation reversed when she was 32 months old; she used more words and less nonverbal behaviours.

Example 1: (22 month-old)

MOTHER: Canım bak çocuklar ne yapıyorlar? ("Let's look my dear what are the children doing?")

CHILD: (nonverbal behaviour) She shuts her eyes and starts to shake her body. (Situation: The baby dolls are in their beds sleeping).

Example 2: (32 month-old)

MOTHER: Çocuklar uyuyorlar mı annecim? ("Are the children sleeping my dear?")

CHILD: Uyuyorlar ama uyandılar şimdi yűzlerini yıkayacaklar. She takes two dolls. ("They are sleeping; but they woke up and they will wash their face.)

In the second example, the child responded to her mother's communicative attempts with verbal behaviour along with nonverbal behaviour; but in the first example, she only gave a nonverbal response, which also shows her capacity to understand but limited vocabulary makes her use only nonverbal behaviour.

Table 4.4 demonstrates the summary measures of the second-born-male child and mother's speech acts, interchanges, and interchange-speech act combination types used in their interaction in the 40 minutes in each session.

Table 4.4. Summary measures of second-born-male-child communicative acts initiated by the mother

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	62	219	0.079
20	65	256	0.104
22	71	285	0.117
24	81	297	0.139
26	87	293	0.158
28	98	312	0.174
30	124	328	0.205
32	137	357	0.210
34	163	450	0.273
36	196	538	0.344

Like the second-born-female child's rates, there was an increase in the male child's rates in the number of speech acts, interchanges, and interchange-speech-act combination changes, but the increase do not seem to be as much as in the rates of the second-born-female. For instance, while the number of speech acts used by the female child is 181 at 30 months old, that of male child is 124; however the increase is parallel with age as was the case for both the female child as well as the male child. In addition, in comparing the second-born-male with the first-born-male, the increase rates are not very different- the increases in the use of all three types in both children's dyads are almost similar.

Table 4.5 shows the comparison of all four children's speech act, interchange, and interchange speech act combinations in total numbers derived from their interactions between the ages of 18 months and 36 months.

(C1: First-born-female; C2: first-born-male; C3: second-born-female; C4: second-born-male)

Table 4.5. Comparison of the total measures of all 4 children's communicative acts initiated by the mothers

CHILD	SPEECH-ACT	INTERCHANGE	INTERCHANGE-SPEECH ACT COMBINATION
C1-F-F	**1451**	**7730**	**1.909**
C2-F-M	**674**	**2160**	**0.784**
C3-S-F	**1556**	**9163**	**2.506**
C4-S-M	**1084**	**3335**	**1.803**

As illustrated in the table above, C3- second-born-female-child's measures in all of three categories are higher than those of others'. Even, when we look at female children's measures, the measures of second-born-female child's communicative acts are slightly greater than that of the first-born-female. As for the male children, second-born-male has higher rates than the first-born-male.

4.1.2. The Summary Measures of Children's Communicative Acts

In this part, we investigate only the children's communicative acts initiated by them. Sometimes, the initiator can be the child himself/herself instead of the mother. When we look at the measures of all four children's communicative acts, it is understood that the changes in the three types depends on the age, gender, and/or birth order.

Table 4.6 shows the measures of the communicative acts initiated by the first-born-female-child during the 40-minute playing sessions.

Table 4.6. The summary measures of first-born-female-child's communicative acts initiated by the child

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	16	64	0.250
20	18	67	0.234
22	21	68	0.241
24	30	108	0.152
26	38	139	0.169
28	44	190	0.182
30	58	194	0.237
32	65	214	0.211
34	75	239	0.218
36	91	260	0.219

As illustrated in the table above, after the age of 24 months, there is an increase in the rates of the speech act types, interchange types, and interchange-speech act combinations. Moreover, after the age of 24 months, increase in communicative acts continues as the age increases. At the age of 36 months, this increase is the highest

parallel with the cognitive and the pragmatic development in language acquisition. It has been found out that at the age of 32-34 months, Turkish children reach the highest level of pragmatic development (Kesli, 2001). And in this study, this finding has been once more figured out and it has been found out that gender and birth order has also effects on pragmatic development.

Table 4.7 illustrates the first-born-male-child's communicative acts initiated by him.

Table 4.7. The summary measures of first-born-male-child's communicative acts initiated by the child

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb** types Duration:40min.
18	12	43	0.202
20	15	51	0.214
22	18	58	0.220
24	24	65	0.141
26	30	77	0.152
28	44	90	0.173
30	58	104	0.227
32	61	113	0.192
34	72	129	0.218
36	82	140	0.231

Similar to the first-born-female-child, first-born-male-child's measures of communicative acts initiated by him increases after the age of 24 months. In all three types, there is an increase as the age increases.

Table 4.8 shows the summary measures of second-born-female child's communicative acts initiated by her.

Table 4.8. **The summary measures of second-born-female-child's communicative acts initiated by the child**

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb**. types Duration:40min.
18	24	73	0.244
20	32	89	0.192
22	41	98	0.204
24	59	121	0.172
26	62	134	0.168
28	74	195	0.183
30	88	211	0.217
32	105	249	0.201
34	112	251	0.180
36	154	262	0.213

When we look at the rates, it is seen that starting at the age of 18 months, there is a regular increase in all three types of communicative acts. This illustrates that in addition to gender, birth order has a great effect on the pragmatic development in language acquisition. When we compare the measures of the second-born-female wit those of the first-born-female, it is clear that there is a difference between the rates. For example, while the total number of speech act types was 16 when the first-born-female was 18months, it was 24 in the second-born-female-child's measures. In addition, the increase starts just after the 18months with the second-born-female while the rapid increase has started after the age of 22 months.

Table 4.9 illustrates the summary measures of second-born-male-child's communicative acts initiated by him.

Table 4.9. The summary measures of second-born-male-child's communicative acts initiated by the child

Age of the child (month)	total number of **speech act** types Duration:40min.	total number of **interchange** types Duration:40min.	ratio of **interchange-speech act comb**. types Duration:40min.
18	16	63	0.184
20	19	74	0.214
22	27	84	0.194
24	35	108	0.158
26	50	127	0.177
28	69	160	0.189
30	81	164	0.217
32	84	171	0.210
34	93	198	0.189
36	104	215	0.218

In this last table, it is also seen that when compared to first-born-male child's measures, there is a difference in the rates. The rates of second-born-male are higher than the first-born-male's.

When we look at the last four tables, it is seen that the second-born-children's rates are higher than the first-borns' and also the second-born-female's rates are higher than the second-born-male's. The most important reason for these two measures' being higher than the third type in the second-born-female child's results when compared to those of the other children's results may be the number of people she has been in interaction with. Additionally, also there is the effect of gender, which indicates that female children communicate more than male children do. In addition, this may be because of the second-born-female child's mother's high interest towards her, the

mother's ability to play with her; in more concrete terms, her capacity to make the child speak naturally towards leading her play with the given toys.

All the mothers work, and when this fact is taken into consideration, it can be thought that the time that they engage with their children is almost the same. However, when compared with the ability of the second-born-female child's mother in making the child involved in communication, it was discovered that the efforts of the other children's mothers to make their children play and communicate do not serve the purpose as was also the case in Keşli 2001.

In conclusion, the results of this study show that pragmatic development of the children in this study who are between 18 and 36 months depends on:

- the gender,
- the birth order,
- the proportion of the use of different speech act and interchange types,
- the use of the same speech acts in different proportions and in different circumstances by the child and the mother.

These are the general differences of communicative acts between the rates of communicative acts produced by all four children. In addition to these general differences in all three types of communicative acts, we have also tried to investigate interchange repertoires, speech acts, and interchange-speech act combination types in detail in order to see whether there are differences between them or not.

4.1.3. Children's Interchange Repertoires

On the level of the interchange, what is coded is speaker's overt framing (i.e. defining) of the immediate social situation. In talking, speakers operate on states and events of the immediate social situation in various different ways. For example, they:

- negotiate the occurrence and the characteristics of ongoing and future states and events;
- mark the occurrence of some event;
- establish and sustain a state of conversation;
- perform verbal moves of rule-bound activities: and
- meta-communicative about unsuccessful communication. (MacWhinney, 1999)

Accordingly, types of interchanges may be described in terms of the kind of operation they exert on social interaction. That is:

Negotiations consist of directives to hearer to bring about some future state of affairs, of commitments by which speaker undertakes to bring about some state of affairs, and of declarations that some state obtains.

Markings signal or acknowledge the occurrence of an answer. Markings are contingent on the occurrence of an event but do not indicate it since the event is that represented verbally by the utterance.

Discussions consist of the exchange of information on various topics.

Performances of verbal moves in games and other rule-bound activities count as meaningful units within the framework of those games. The meaning of such utterances is desirable only in reference to the relevant game and its rules.

Meta-communications consist of demands for clarifications, or else of various statements about them.

In this part, we investigate the interchange repertoires of each child in depth.

Table 4.10 shows the frequency of interchange types used by the first-born-female child.

Table 4.10. The frequency of interchange types used by the first-born-female child

Age of the child (month)	**Interchange types**													
	DCC	DFW	**DHA**	DHS	**DJF**	**MRK**	NCS	**NFW**	**NIA**	NMA	PRO	**PSS**	SAT	YYY
18			**4**			**13**			**39**			**6**		1
20			**3**		**1**	**17**		**1**	**35**					15
22			**22**		**7**	**19**		**2**	**42**					1
24			**12**	5	**19**	**40**		**7**	**238**			**6**		1
26			**9**		**2**	**18**		**1**	**99**			**8**		
28	8	2	**6**	17	**28**	**26**	7	**14**	**104**	1	1	*2*	1	7
30			**32**			**5**		**10**	**130**			**10**		2
32			**45**		**28**	**2**		**11**	**98**			**15**		
34			**52**			**6**		**8**	**108**			**2**		
36			**9**		**49**	**8**		**2**	**128**			**12**		

(See Appendix A for interchange types' abbreviations)

At younger ages, children begin to engage in communicative interchanges, but their use of different communicative interchanges increase as the children get older. The most common interchanges observed in the first-born-female child at 18, 20, 22 months are *Marking* (Example 1), *Directing the hearer's attention* (Example 2), and *Negotiating immediate activity* (Example 3). There are very few other interchange types used by the child at these ages.

Example 1:

18-month-old

CHILD: Anne bak top. ("Mom look ball." The child shows the ball.)

MOTHER: Evet, o top. ("Yes, it's a ball.")

20-month-old

CHILD: Anne bak bu mavi kalem. ("Mother look! This is a blue crayon," The child shows the blue crayon.)

MOTHER: Hadi mavi kalemle gőkyűzű yapalım mı şimdi. ("Let's draw sky with

blue crayon now.")

As seen in the example conversations, the child attempts to direct the mother's attention towards the ball, and to the blue crayon both verbally and nonverbally.

22-month-old

CHILD: Mavi kalemle boyayım adamın gőmleğini. ("I'll paint the man's shirt with a blue crayon.")

MOTHER: Hadi o zaman bűtűn kıyafetini boya. ("Let's paint all his cloth.")

However, in this conversation, the child attempts to negotiate with the mother about which crayon to be used.

Example 2:

18-month-old

CHILD: Bak koltukta abla var. ("Look, sister is on the armchair." The child tries to show the girl in the story book to her mother.)

MOTHER: Evet koltukta oturuyor abla. ("Yes, there is a sister on the armchair.")

20-month-old

CHILD: Topu at annecim. ("Throw the ball mom." The child shows the ball to her mother.)

MOTHER: Attım topu. ("I threw the ball.")

22-month-old

CHILD: Topu attım . ("I threw the ball!" The child threw the ball.)

MOTHER: Ben de tuttum topu. (“I caught the ball.”)

As is obvious in the above examples, the child uses more *negotiating immediate activity* interchange type in the speech, which is the effect of the activity types. According to the activity types, the child tends to use more NIA. For example, in the example above, the child chooses to play with the ball although there are other objects or toys to play. She makes the choice and tries to negotiate her mother into the activity she has chosen.

Example 3:

18-month-old

CHILD: Bak kız var resimde. (“Look, there is a girl in the picture.”)

MOTHER: Bu kız, bu da annesi. (“This is the girl and this her mother.”)

20-month-old

CHILD: Bebek bak anne. (“Baby, look mom.”)

MOTHER: Evet bebek ile annesi evdelermiş. (“Yes, the baby and her mom are at home with her mom.”)

22-month-old

CHILD: Ninni sőyle anne. (“Sing a lullaby.”)

MOTHER: Ninni sőyledim şimdi ne yapalım? (“I sang it, and what will we do?”)

After the age of 22 months, the children begin to use more complex interchange types. For instance, while interchange type *Marking* is the most frequently used by the first-born-female between 18 and 22 months, *Negotiating Immediate Activity* (Example 4) and *Discussing Joint Focus* (Example 5) are used more frequently by the age of 24 months. *Negotiating immediate activity* interchange type is used more frequently after the age of 18 months because children begin to use that type in different situations, and they give different functions to them in accordance with the game they are playing with their mother (Keşli 2001).

Example 4:

24-month-old

MOTHER: Masa nerde kızım? ("Where is the table my girl?")

CHILD: Masa mutfakta. ("The table is in the kitchen." The child shows the table.)

Here the mother tries to make her child to engage in describing the objects in the toy house by marking the objects; and the child, in response, answers the mother's questions and negotiates into the activity.

Example 5:

26-month-old

MOTHER: Çocuklar uyuyor mu? ("Are children sleeping? The mother shows the children's bedroom in the toy house.)

CHILD: Hı hı, yatıyolar ama uyansınlar artık. ("Yes, they are, but let's wake them up.")

In this example, the child tries to discuss the joint focus. The mother tries to make the child focus on the baby dolls and tries to make her speak about them. Accordingly, the child starts to interact with the mother about the baby dolls, but discusses the joint focus: the situation of the baby dolls.

At 30 months of age, the core set of communicative interchanges the child was engaged in changes. She has begun to use less *Marking* and more *Negotiating the immediate activity, while discussing joint focus of attention* interchange types. Therefore, her interchange repertoire keeps growing with her age. In other words, initially, she participates in only a small core of social interchanges (primarily marking, negotiating, and discussing the joint focus), but gradually this shared repertoire expands to include negotiation and discussion of the nonpresent or non-observable objects and people.

Table 4.11 illustrates the frequency of interchange types used by the first-born-male child.

Table 4.11. The frequency of interchange types used by the first-born-male child

Age of the child (month)	**Interchange types**													
	DCC	DFW	**DHA**	DHS	**DJF**	**MRK**	NCS	**NFW**	**NIA**	NMA	PRO	**PSS**	SAT	YYY
18			**5**			**11**			**29**			**4**		1
20			**3**		**1**	**14**		**1**	**25**					13
22			**12**		**7**	**16**		**2**	**33**					1
24			**13**	5	**13**	**30**		**4**	**38**			**6**		1
26			**9**		**2**	**15**		**1**	**49**			**8**		
28	7	2	**6**	17	**24**	**26**	7	**14**	**54**	1	1	**2**	1	7
30			**32**			**5**		**10**	**60**			**10**		2
32			**41**		**29**	**2**		**11**	**98**			**16**		
34			**42**			**6**		**8**	**102**			**2**		
36			**9**		**32**	**5**		**2**	**118**			**12**		

(See Appendix A for interchange types' abbreviations)

When we look at the first-born-male child's frequency of interchange types, we notice the same engagement like the first-born-female child's, but the frequencies are a

bit lower. The most common interchanges observed here are also same with the first-born-female child's: at younger ages, they demonstrate *Marking, Directing the hearer's attention*, and *Negotiating immediate activity*.

After the age of 22 months, the children begin to use more complex interchange types as can be seen in the table 10. For instance, *Negotiating Immediate Activity* and *Discussing Joint Focus* are used more frequently by the age of 24 months as it was the case with first-born-female child. *Negotiating immediate activity* interchange type is used more frequently after the age of 32 months whereas first-born-female started to use this type after the age of 24 months.

Table 4.12 illustrates the frequency of interchange types used by the second-born-female child.

Table 4.12. The frequency of interchange types used by the second-born-female child

Age of the child (month)	**Interchange types**													
	DCC	DFW	**DHA**	DHS	**DJF**	**MRK**	NCS	**NFW**	**NIA**	NMA	PRO	**PSS**	SAT	YYY
18			**7**			**23**			**44**			**4**		1
20			**13**		**1**	**32**		**1**	**52**					14
22			**26**		**9**	**39**		**3**	**63**					1
24			**28**	5	**19**	**53**		**7**	**249**			**7**		2
26			**39**		**12**	**78**		**9**	**319**			**8**		
28	9	2	**45**	17	**28**	**86**	9	**13**	**424**	1	1	**8**	1	6
30			**51**			**95**		**11**	**530**			**10**		5
32			**65**		**35**	**112**		**11**	**558**			**15**		
34			**72**			**126**		**9**	**569**			**12**		
36			**71**		**48**	**138**		**12**	**628**			**17**		

(See Appendix A for interchange types' abbreviations)

In the table above, we can see that as the child gets older, the use of some interchange types increase. For instance, at 18, 20, and 22 months, the child's most used interchange types are *Marking, Directing the hearer's attention,* and *Negotiating*

immediate activity. There are very few other interchange types used by the child at these ages, which was also the same situation with the first-born-female and first-born-male children. The only difference is the frequencies; in other words, the frequency of the use of these interchange types is higher with the second-born-female child when compared the other two.

The increasing use of more complex interchange types also begins after the age of 22 months, and *Negotiating Immediate Activity* and *Discussing Joint Focus* are among the most frequently used ones. In addition, the core set of communicative interchanges the child was engaged in changes after the age of 24 as is seen in the Table 4.11. She has also begun to use less *Marking* and more *Negotiating the immediate activity,* and *Discussing joint focus of attention* interchange types.

Table 4.13 shows the frequency of interchange types used by the second-born-male child.

Table 4.13. The frequency of interchange types used by the second-born-male child

Age of the child (month)	**Interchange types**													
	DCC	DFW	**DHA**	DHS	**DJF**	**MRK**	NCS	**NFW**	**NIA**	NMA	PRO	**PSS**	SAT	YYY
18			**5**			**15**			**31**			**4**		1
20			**6**		**1**	**19**		**1**	**35**					12
22			**14**		**7**	**22**		**2**	**39**					2
24			**16**	6	**14**	**34**		**4**	**45**			**7**		2
26			**19**		**12**	**31**		**5**	**52**			**8**		
28	6	4	**22**	16	**21**	**26**	7	**17**	**59**	2	1	**9**	2	8
30			**31**			**8**		**13**	**69**			**10**		2
32			**43**		**29**	**7**		**14**	**82**			**15**		
34			**42**			**6**		**8**	**109**			**12**		
36			**29**		**54**	**5**		**5**	**129**			**13**		

(See Appendix A for interchange types' abbreviations)

When we finally look at the second-born-male child's frequency of interchange types, the same engagement like the first-born-female, first-born-male and second-born-

female children is seen, but the frequencies are different. When compared with that of the first-born-male, the second-born-male child's frequency rates are higher. The most common interchanges observed here are also the same with the first-born-male child's: at younger ages, the focus is on *Marking, Directing the hearer's attention*, and *Negotiating immediate activity*. After the age of 22 months, there occurs more complex interchange types usage as can be seen in the table above. Only in the frequency of the use of the *Discussing Joint Focus* interchange type is there a significant increase. At the age of 36 months, the number increases to 54 while it was 29 at the age of 32 months.

Table 4.14 shows all four children's total measures of interchange repertoires. The most commonly used interchange types are: DHA (Direct Hearer's Attention), DJF (Discuss Joint Focus of Attention), MRK (Marking), NFW (Negotiating Fantasy World Activity), NIA (Negotiating the Immediate Activity), PSS (Negotiating Possession of objects).

(C1-F-F: First-born-female; C2-F-M: first-born-male; C3-S-F: second-born-female; C4-S-M: second-born-male)

Table 4.14. Comparisons of the total measures of all 4 children's interchange repertoires

CHILD	DHA	DJF	MRK	NFW	NIA	PSS
C1-F-F	194	134	154	56	1021	61
C2-F-M	172	108	130	54	606	60
C3-S-F	417	152	782	76	3436	81
C4-S-M	227	138	173	69	650	78

As can be seen in the table above, all four children use these interchange types at different rates. When the rates are compared, it is obvious that female children make use of more interchange types than male children; and especially, second-born-female child's rates are extremely higher than those of the first-born-female. The highest rate belongs to the NIA- Negotiate the immediate activity, which may be the effect of the acitvity type. NIA is mainly used to negotiate the initiation, continuation, ending and stoping of activities and acts. Sometimes, it may also be used to direct speaker's or hearer's attention, and also to allocate roles, moves and turns in joint activities. Thus, the activity types that the children engaged in are the main determinants for the use of NIA. As there are many differnts objects in the toy house used in this study, all four children use NIA more than the other interchange types. At the very early ages, like between 12 and 16, children usually talk here and now; but they continue to talk about here and now according to the activities or the topics they are engaged in.

Moreover, all four children also use NFW- Negotiating fantasy world activity because of the activities engaged in and also because children develop fantasy worlds of themselves at around those ages. In parallel with the children's emotional and personality developments, the use of these interchange types also increases and as a result their communicative act repertoires enlarge, and they develop pragmatically, as well.

MRK (Marking), the function of which is to mark events or objects, or to express socially expected sentiments such as thanking, apologizing, etc., is also among the most commonly used interchange types. The reason may be again the types of interactions the children are involved. They are involved in games with various kinds of toys, and as a result they make use of these types of interchange types, and they will continue to use them as much as they are involved in such situations.

DHA (Directing hearer's attention to objects and persons) is also one of the most commonly used interchange types. Its function is to direct hearer's attention to objects, persons and events in the environment, and also to prepare activity or discuss a joint focus. This type of interchange provides a basis for some other interchange types, like NIA and DJF. DJF (Discussing joint focus of attention) is also among one of the most commonly used interchange types as Machado (2003) states (see page 33). DJF is used frequently among the participants in this study again as a result of the activity types that the children have been engaged in. They use DJF to hold a conversation on something observable in the environment that both participants attend to; thus, in any game, or in any interactive situation using DJF is inevitable becuase any interaction is an ongoing actions of hearer and speaker.

In the compariosn table above, it is clearly seen that C3 uses all of the interchange types at higher rates. This may be the sign of the effect of gender and the birth order. C3 is the second-born-female child, and this is the main reason of her rates being extremely higher when compared to other children's rates. As the literature suggests, being a female and having an older sibling affect the langauge development. With respect to these high rates, C3 will be ahead of her peers in terms of pragmatic development.

In summary, in this study, we see that all four children are somewhat skillful communicators: they communicate effectively with their mothers focusing their attention on the topic.

4.1.4. The Children's Speech Act Repertoires

As the previous part, here in this part, children's speech act repertoires will be investigated in detail. Table 4.15 illustrates the frequency of speech act types used by the first-born-female child.

Table 4.15. <u>The frequency of speech act types used by the first-born-female child</u>

Age of the child (month)	**SPEECH ACT TYPES**																						
	AA	AD	AC	AN	CL	CS	DC	DP	DR	ED	EQ	ET	MK	PM	PR	RD	RP	SA	ST	TO	QA	QN	YQ
18		2	2	2		4									2	3		5	4	4			2
20	5	2	2	2								2			3	3		4	2	2		2	1
22	3	4	2	2		1						2	1		3	3	1	5	3	2		2	1
24	**5**	**5**	**3**	**3**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**1**	**1**		**3**	**4**	**1**	**5**	**4**	**2**	**2**	**3**	**1**
26	5	4		3		2		2			1		2		3	4	2	5	3	3		3	
28	4	5	3	4	2	1		3		2	2	2	2	2	3	6	3	7	5	4		5	3
30	4	5	5	3		2	1	3			3		3	2	3	6	2	8	5	4		4	3
32	3	5	2	4		2	2	3	2				2	2		7	3	7	6	5		5	3
34	2	4		5			4	4	2			2	3			8	4	6	7	5		5	4
36	3	4	3	6	3		4	4	3		2	2				8	5		6	6	4	6	4

(See Appendix A for speech act types' abbreviations)

Keşli (2001) states that a high degree of convergence across children would not be expected because the number of possible speech act types is quite large; moreover,

production of some types of speech acts depends on the preceding intent expressed by one's interlocutor. For instance, one can normally answer a wh-question after a wh-question is asked, and one can put forth a counter-suggestion only after a suggestion has been made.

After the age of 20 months, more complex speech act types are used because children at these ages begin to use more words and they use words with more than one function in communication. At the age of 24 months, almost all types of speech acts have been used by the child for the first time, which is an identifying feature of the child's pragmatic development in language acquisition. That means 24 months is a turning point in their language development, specifically in their pragmatic development.

The most frequently used speech acts at these ages are *refuse to do/RD* (Example 1), *agree to do/AD* (Example 2), *affirmative answer to yes-no question/AA* (Example 3), and *state intent/ST* (Example 4). When children refuse to do something, it is a sign of their emotional developments. In parallel with emotional development, children start to refuse or agree to do the actions that are requested from them. As the age increases, children develop emotionally, and their language development is affected by this emotional development.

Example 1:

22-month-old:

MOTHER: Hadi uyandıralım mı bu çocukları? ("Let's wake the children up.")

CHILD: Hadi uyansınlar yeter. ("Let's do, they must wake up, it's enough.")

Although children mostly use –ma (not) in order to refuse, here in this example the child uses the word "yeter" (enough) in order to express refusal, which may be an important

sign of her language development. She expresses her intentions by using more complex words.

28-month-old:

MOTHER: Bir de dişlerini fircalayalım. (“Let’s brush their teeth also.”)

CHILD: Tamam ama őnce ellerini yıkayalım (“Ok, but first we will wash their hands.”)

Here in this example, in order to refuse the child uses a set of words to express another intention of her. The child refuses her mothers communicative intention not by just using a negative sentence or negative word, she suggest another thing to do first: “…to wash their hands.”

Example 2:

26-month-old:

MOTHER: Arabayı park eder misin? (“Can you park the car?”)

CHILD: Park ettim bak. (“Look, I parked.”)

In this example, the child just agrees what her mother declared by marking the object. This shows that child not only agrees to do something but also tries to initiate another activity by marking another object or event while agreeing to something.

28-month-old:

MOTHER: Çocukları yataklarına yatır hadi. (“Let’s put the children in their beds.”)

CHILD: Kızı buraya, oğlan buraya (“The girl is here, and the boy is here.” He puts the children on their beds in accordance with their pictures.)

Here in this example, the situation is also the same as the previous example.

Example 3:

20-month-old:

MOTHER: Annecim beğendin mi bu evi? (“Did you like this toy house my dear?” The mother shows the toy house puppet.)

CHILD: Beğendim. (“Yes, I liked it.”)

This example illustrates that the child answers a yes/no question by stating an affirmative sentence. She does not use only yes or no in order to answer the yes/no question.

22-month-old:

MOTHER: Çiçek çizmeyecek misin? (“Won’t you draw a flower?”)

CHILD: Çiçek çizmem. (“I won’t draw a flower.”)

In this example, the child not only answers a yes/no question, but also refuse to do the action requested. This shows that at this age the female child is communicatively capable of using more than one interchange type at the same time with a purpose in mind.

Example 4:

24-month-old

CHILD: Çocuklara yemek yedirelim. (“Let’s feed the children.” The child makes the children sit on the chairs.)

Here in this example, the child states her intent by herself, which shows that she has the ability to declare her intentions in a whole affirmative sentence at this age.

Between 28-36 months, the child continues to engage in these complex speech acts. After the age of 28 months, the most notable development is that the child starts *asking wh-question/QN* and *yes-no questions/YQ* (Example 5); the production of *answers to a wh-question with a statement/SA* and *affirmative answer to yes-no question/AA.* At the age of 28 months, there is a rapid increase in the rates of the use of QN and YQ, which may be directly related with both the language development and the cognitive

development of the child and also the input she gets from her caregivers, especially her mother, as well as the activity type being engaged in.

Example 5:

30-month-old

CHILD: Neymiş bu oğlanın adı? ("What is this boy's name?")

CHILD: Uyuyor mu? ("Is he sleeping?")

Here the child uses a –wh question, and this type of questions are seen more frequently after the age of 28 months.

In addition, this child starts to use many other speech act types starting at the age of 18 months, like *declare a new state of affairs/DC* (Example 6), how to *answer in the negative to a yes-no question/AN* (Example 7), and how to *request with yes-no question/YQ* (Example 8). However, in Kesli (2001) these speech act types were used after the age of 30 months.

Example 6:

18-month-old

CHILD: Kőpeği koy buna . ("Put the dog into it." The child shows the dog house.)

The child creates e new state of affairs by declaration at the age of 18 months although the age is very young. In contrast to the findings of Keşli 2001, the use of this speech act type starts earlier, which may be the effect of gender in this situation. These early uses of some speech act types are also seen in the examples below:

Example 7:

20-month-old:

MOTHER: Miki konuşsun mu seninle? (“Would Miki speak with you?”)

CHILD: Hayır. (“No.”)

Example 8:

22-month-old

CHILD: Ben oturayım mı buna? (“Will I sit on it?” The child shows the toy chairs in the toy house.)

As seen in the example above, the use of these speech act types, *declare a new state of affairs*, how to *answer in the negative to a yes-no question,* and how to *request with yes-no question,* are among the ones that the first-born-female child make use of at an earlier age in contrast to the previous study’s findings (Kesli, 2001). Therefore, we may conclude that this early start of the usage of many different types of speech acts may be the effect of gender.

Table 4.16 shows the frequency of speech act types used by the first-born-male child. As can be seen in the table below, 24 month is the age at which the child uses all speech act types together for the first time as it was the case in the first-born-female-child.

Table 4.16. The frequency of speech act types used by the first-born-male child

Age of the child (month)	**SPEECH ACT TYPES**																						
	AA	AD	AC	AN	CL	CS	DC	DP	DR	ED	EQ	ET	MK	PM	PR	RD	RP	SA	ST	TO	QA	QN	YQ
18		1	1	1		2									1	2		2	1	1			1
20	2	2	1	2								2			2	2		2	2	1		1	1
22	2	2	1	2		1						2	1		2	2	1	4	2	2		1	1
24	**4**	**3**	**2**	**3**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**1**	**1**		**3**	**4**	**1**	**4**	**3**	**2**	**2**	**2**	**1**
26	4	3		3		1		2			1		2		3	4	2	4	3	3		2	
28	4	4	3	3	2	2		2		2	2	2	3	2	3	5	3	5	4	4		3	2
30	4	5	4	3		2	1	2			3		3	2	3	6	3	6	5	4		3	3
32	4	5	3	4		2	1	3	2				2	2		7	3	6	6	5		4	3
34	2	4		4			3	4	2			2	2			7	4	6	6	5		4	4
36	3	4	3	5	2		4	4	2		2	2				8	5	5	6	5	4	5	4

(See Appendix A for speech act types' abbreviations)

As is illustrated in the table above, the types of speech acts used, at which age they were used, and by which frequency they were used show similarities with those of the first-born-female. The only difference is in the frequencies; first-born-female's frequencies are a bit higher than the first-born-male child's frequencies. In addition, the use of *asking wh-question/QN* and *yes-no questions/YQ speech* act types in the first-born-male child is very low when compared to the first-born-female child's results. The first-born-female uses those speech acts with the frequency of 2 by the age of 18 and 20 months whereas the first-born-male uses them with the frequency of 1 at the same age.

The most frequently used speech acts at these ages, between the ages of 18-28 months, are also *refuse to do/RD* (Example 1), *agree to do/AD* (Example 2), *affirmative answer to yes-no question/AA* (Example 3), and *state intent/ST* (Example 4).

Example 1:

20-month-old:

MOTHER: Yatıralım mı çocukları? ("Let's put the children in their beds, shall we?")

CHILD: Evet. ("Yes.")

Example 2:

28-month-old:

MOTHER: Kőpeği evine koyalım mı? ("Let's put the dog in its house, shall we?")

CHILD: Koyalım. ("Let's put.")

Example 3:

26-month-old:

MOTHER: Bu evden alalım mı bizde ister misin? ("Shall we buy this house? Do you Want it?")

CHILD: Alalım. ("Yes, let's buy.")

In all of the examples below, this child-first-born-male, like the first-born-female, responses yes/no question either by a yes/no word or an affirmative sentence. As stated, the only difference between those two children is the frequencies of the speech act types used.

Example 4:

28-month-old

CHILD: Çocuklara yıkıyalım. ("Let's wash the children." The child takes the children to the bathroom.)

Here in this example, the child declares an intention, which was almost similar with the first-born-female child.

Table 4.17 illustrates the frequency of the speech act types used by the second-born-female-child.

Table 4.17. The frequency of speech act types used by the second-born-female child

Age of the child (month)	**SPEECH ACT TYPES**																						
	AA	AD	AC	AN	CL	CS	DC	DP	DR	ED	EQ	ET	MK	PM	PR	RD	RP	SA	ST	TO	QA	QN	YQ
18		3	3	3		4									2	3		5	5	4		2	2
20	5	4	4	4		4						4	1		3	4		5	5	5		3	2
22	5	5	4	4		4						3	2		4	4	1	6	4	5		3	2
24	**6**	**6**	**5**	**4**	**1**	**3**	**1**	**2**	**1**	**2**	**1**	**4**	**2**		**4**	**5**	**2**	**6**	**5**	**5**	**2**	**4**	**2**
26	6	6	5	5	2	4		2			2	3	3		4	5	3	7	6	6	2	4	
28	6	6	6	5	3	4		3		3	3	4	3	2	4	6	4	8	6	6		5	3
30	5	5	5	4		4	2	3			4		3	2	3	7	3	8	6	5		5	4
32	5	5	5	5		4	3	3	2				3	3	3	8	5	9	7	6		6	4
34	4	5		5		4	4	5	3			4	4	3		9	5	9	8	6		7	5
36	5	5	5	6	4		4	5	3		4	4				9	6	9	9	7	4	8	6

(See Appendix A for speech act types' abbreviations)

When we look at the results in the table above, we see that the same speech act types and the same frequencies occur again, but the results are a little higher than that of the first-born-female child's results. Again. At the age of 24 months, the child makes use of all the speech act types.

In the frequencies, it is clearly seen that birth order certainly effects the language development and communicative development as it was expected by Hoff-Ginsberg & Krueger,1991. Language samples are also the same as those of the first-born-female except for the frequencies.

Moreover, the frequencies start to increase earlier when compared to the first-born-female child's. For instance, just after the age of 18 months, the frequency of QN, YQ, SA, and AA are 5 or 4, as is seen in Table 4.17; however, in Table 4.15, these frequencies were seen after the age of 22 months. Between 28-36 months, the second born-female continues to engage in these complex speech acts with high frequencies like 7, 8, or 9.

In addition, just like the first-born-female, this child has also started to use many other speech act types starting at the age of 18 months old, like *declare a new state of*

affairs/DC, *answer in the negative to a yes-no question/AN*, and how to *request with yes-no question/YQ* .

Table 4.18 shows the frequency of speech act types used by the second-born-male child, and once more the same age, 24 months old, is the time when the child uses all speech act types for the first time.

Table 4.18. <u>The frequency of speech act types used by the second-born-male child</u>

Age of the child (month)	**SPEECH ACT TYPES**																						
	AA	AD	AC	AN	CL	CS	DC	DP	DR	ED	EQ	ET	MK	PM	PR	RD	RP	SA	ST	TO	QA	QN	YQ
18	1	1	1	2		2							1		1	3		2	1	1		1	1
20	2	2	2	2								2			2	3	1	3	2	2		2	2
22	3	2	2	3		2						3	3		2	3	2	4	3	3		2	2
24	**4**	**3**	**3**	**3**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**3**	**3**		**3**	**4**	**2**	**4**	**4**	**3**	**2**	**2**	**2**
26	4	4	3	4		2		2			2		3		4	4	3	5	4	4		3	2
28	4	4	4	4	2	3		2		2	3	3	3	2	4	5	4	6	5	5		4	3
30	4	5	4	3		3	2	3			3		3	2	4	6	5	6	6	5		4	4
32	4	5	4	4		3	2	3	2			2	2	2		6	5	6	6	5		5	4
34	3	4		5			3	4	2			2	2			6	5	6	6	5		5	4
36	3	4	4	5	3		4	4	3		3	3	3			7	6	6	7	6	4	6	5

(See Appendix A for speech act types' abbreviations)

As can bee seen in the table above, the types of speech acts used and at which age they were used, again the only difference is in the frequencies; but a little. The most frequently used speech acts and the complexity of the speech act types are also the same as with the first-born-male child's results. In addition, the examples are also almost similar as can be seen below: *Refuse to do/RD* (Example 1), *agree to do/AD* (Example 2), *affirmative answer to yes-no question/AA* (Example 3), and *state intent/ST* (Example 4).

Example 1:

18-month-old:

MOTHER: Uyusun mu çocuklar? ("Do the children sleep?")

CHILD: Evet. ("Yes.")

Example 2:

26-month-old:

MOTHER: Çocukları odalarına koyalım mı? ("Let's put the children in their room, shall we?")

CHILD: Koyalım. ("Let's put.")

Example 3:

28-month-old:

MOTHER: Bu evi beğendin mi, ister misin sende? ("Did you like this house? Do you also want?")

CHILD: Evet, isterim. ("Yes, I want.")

Example 4:

28-month-old

CHILD: Çocukları uyutalım. ("Let's make the children sleep." The child takes the children to the bedroom.)

In summary, it is clearly seen in all four tables above that all children, whether they are female or male, first born or second born, make use of all of the speech act types for the first type at the age of 24 months. Age of 24 months is the turning point for the children for engaging themselves in use of all of the speech act types. In addition, some of the speech act types (AD/RD/DC/ST/YQ/YA, etc.) as figured out, are among the most commonly used ones, which is the sign of pragmatic development in parallel with the development of cooperation in the activities or interactions. The children start to engage in any type of activities with cooperation. After the age of 24 months, the ideas of cooperation and ability to state communicative intention develop in a rapid way.

In the next section, we will try to look at the use of combinations of interchange and speech act types in order to see which types of interchanges are mostly used in combination of which speech act types.

4.1.5. Children's interchange-speech act repertoires

In this section, the frequency of interchange-speech act combinations used by each child will be investigated. Table 4.19 shows the frequency of interchange-speech act combinations used by the first-born-female child.

Table 4.19. The frequency of interchange-speech act combinations used by the first-born-female child

Interchange-speech act combination	AGE OF THE CHILD (MONTH)									
	18	20	22	24	26	28	30	32	34	36
DCC:QN									+	
DCC:RD										
DCC:AA							+			
DCC:PR							+	+	+	
DCC:SA									+	
DHA:AA									+	+
DHA: QN						+			+	+
DHA:RP										
DHA:RD						+		+	+	+
DHA: SA	+		+	+	+		+	+	+	+
DHA:ST	+	+	+	+	+	+	+	+	+	+
DHS:AC										
DHS:AA							+		+	
DHS:AD									+	
DHS:QN							+		+	
DHS:AN									+	
DHS:RD									+	
DHS:SA									+	
DHS:ST							+		+	
DHS:DP									+	
DJF:AA					+	+	+	+	+	+
DJF:AC							+			
DJF:AN					+	+		+	+	+
DJF:AD						+	+	+	+	+
DJF:QN									+	+
DJF:RD							+			+
DJF:RP										+
DJF:SA						+	+	+	+	+
DJF:ST							+		+	+
DJF:YQ							+			+
DJF:DP							+			

DJF:QA	+
MRK:TO	+ + + + + + + + + +
MRK:MK	+
NFW:DP	+ + + + +
NFW:RD	+ + + +
NFW:YQ	+ + + + + + +
NIA: AA	+ + + + + + + +
NIA: AD	+
NIA: AC	+ + + + + + + + + + +
NIA:AN	+
NIA:CL	+ + + +
NIA: CS	+
NIA:DC	+ + + + + + + + +
NIA:DP	+
NIA:DR	+
NIA:ED	+ + + + +
NIA:ET	+ + +
NIA:EQ	+
NIA:TO	+ + + +
NIA:MK	+ + +
NIA:PM	+ + + + + +
NIA:PR	+
NIA:QN	+ +
NIA:RD	
NIA:RP	+ + + + +
NIA:SA	+ + +
NIA:ST	+ + + + + + + + + +
NIA:TO	+
NIA:YQ	+ + + + + + +
NMA:CL	+ + + + + + +
PRO:ED	+ + + + + + + + +
PSS:AA	+
PSS:AD	+ + + + + +
PSS:CS	+ + + + + + +
PSS:QN	+
PSS:SA	+ + + +
PSS:ST	+ +
PSS:YQ	+
PSS:TO	+
PSS:RD	+ +
SAT:AC	+
TXT:TO	+ + +
YYY:AC	+ + +
YYY:RD	+
YYY:YQ	+ + + + + + +

(See Appendix A for interchange-speech act combination types' abbreviations)

As seen in the table above, at the age of 30 months, the child uses almost every type of combinations. Between 18 and 24 months, *agree to do* and *state intent* within *Negotiating Immediate Activity/NIA:AD, NIA:SA* (Example 1), and *repetition* within

Discussing Joint Focus/DJF:RP (Example 2) appear most frequently. By 30 months and in the later ages, *agree with a proposition* within *Discussing Joint Focus/DJF:AD* (Example 3), *stating, answering in the affirmative* and *agreeing to statements* within *Negotiating Immediate Activity/NIA:AA, NIA:AN* (Example 4) are used.

Example 1:

20-month-old

CHILD: Bebek yapalım hadi. ("Let's draw a baby." The child starts to draw.)

Example 2:

24-month-old

CHILD: Miki fare bu anne. ("This is Mickey Mouse, mom.)

MOTHER: Miki fare mi? ("Is this a Mickey Mouse?)

CHILD: Bu miki fare, evet. ("This is a Mickey Mouse, yes.")

Example 3:

30-month-old

CHILD: Hadi konuşalim miki fareyle. (Let's speak with Mickey Mouse.")

Example 4:

30-month-old:

MOTHER: Sevdin mi sen bunu? ("Did you like it?" The mother shows the toy house).

CHILD: Evet, sevdim bunu. ("Yes, I liked it.")

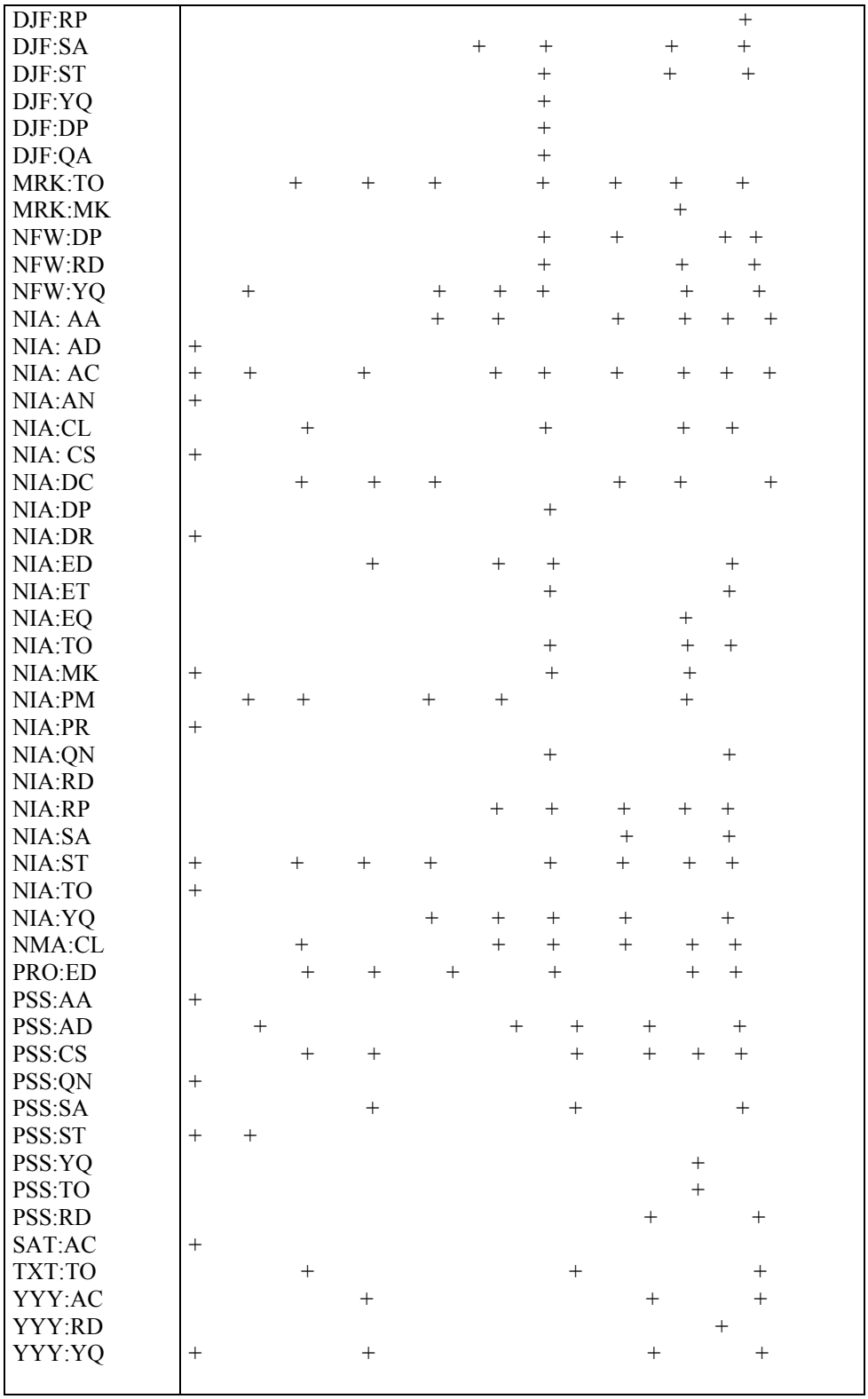
It can be inferred from the speeches in the examples above that the first-born-female child has begun to use interchange-speech act combinations at an early age correctly within the communicative situations. According to the situations (as seen in the examples above), she uses the correct combinations. In addition, as the age increases, the

use of these combinations becomes more frequent, and the use of more complex ones with more than one function is seen after the age of 24 months. For instance, while *transfer of object* is used in *directing hearer's attention* at 14 or 16 months (Kesli, 2001), the same speech act is used in *negotiating immediate activity* after the age of 20 months. Namely, the child has started to load more than one function to speech act types within different interchange types.

Table 4.20 illustrates the frequency of interchange-speech act combinations used by the first-born-male child.

Table 4.20. The frequency of interchange-speech act combinations used by the first-born-male child

Interchange-speech act combination	AGE OF THE CHILD (MONTH)									
	18	20	22	24	26	28	30	32	34	36
DCC:QN									+	
DCC:RD										
DCC:AA							+			
DCC:PR							+	+	+	
DCC:SA									+	
DHA:AA									+	+
DHA: QN						+			+	+
DHA:RP										
DHA:RD						+		+	+	+
DHA: SA	+		+		+		+		+	+
DHA:ST	+		+		+	+	+	+		+
DHS:AC										
DHS:AA							+		+	
DHS:AD									+	
DHS:QN							+		+	
DHS:AN										
DHS:RD									+	
DHS:SA										
DHS:ST							+		+	
DHS:DP									+	
DJF:AA					+		+	+	+	+
DJF:AC							+			
DJF:AN					+	+		+	+	+
DJF:AD						+		+		+
DJF:QN									+	
DJF:RD							+			+



(See Appendix A for interchange-speech act combination types' abbreviations)

As is presented in the table above, there is not much difference between the first-born-female's and the first-born-male child's results; again at the age of 30 months, the first-born-male child uses almost all types of combinations. The combination types are the same, but the only difference, which is slight, is the frequency once more here.

As can be seen in the table above, between 20 and 24 months, *agree to do* and *state intent* within *Negotiating Immediate Activity/NIA:AD, NIA:SA,* and *repetition* within *Discussing Joint Focus/DJF:RP* are also among the most frequently occurring combinations. In addition, by 30 months and in the later ages, more complex act combinations like *agree with a proposition* within *Discussing Joint Focus/DJF:AD, stating, answering in the affirmative* and *agreeing to statements* within *Negotiating Immediate Activity/NIA:AA, NIA:AN* are used by the first-born-male child.

Table 4.21 shows the frequency of the interchange-speech act combinations used by the second-born-female child.

Table 4.21. The frequency of interchange-speech act combinations used by the second-born-female child

Interchange-speech act combination	AGE OF THE CHILD (MONTH)									
	18	20	22	24	26	28	30	32	34	36
DCC:QN	+	+	+							+
DCC:RD										
DCC:AA							+	+		
DCC:PR							+	+	+	
DCC:SA								+	+	
DHA:AA									+	+
DHA: QN						+			+	+
DHA:RP										
DHA:RD						+	+	+	+	+
DHA: SA	+	+	+	+	+	+	+	+	+	+
DHA:ST	+	+	+	+	+	+	+	+	+	+
DHS:AC										
DHS:AA							+	+	+	
DHS:AD									+	+
DHS:QN							+	+	+	
DHS:AN								+	+	+
DHS:RD								+	+	
DHS:SA								+	+	+
DHS:ST							+	+	+	+
DHS:DP								+	+	+
DJF:AA					+	+	+	+	+	+
DJF:AC							+			
DJF:AN					+	+	+	+	+	+
DJF:AD					+	+	+	+	+	+
DJF:QN							+	+	+	+
DJF:RD							+	+	+	+
DJF:RP										+
DJF:SA						+	+	+	+	+
DJF:ST							+		+	+
DJF:YQ							+	+	+	+
DJF:DP							+			
DJF:QA							+			
MRK:TO	+		+	+	+	+	+	+	+	+
MRK:MK									+	+
NFW:DP							+	+	+	+
NFW:RD							+	+	+	+
NFW:YQ		+			+	+	+	+	+	+
NIA: AA					+	+	+	+	+	+
NIA: AD	+									
NIA: AC	+	+	+	+	+	+	+	+	+	+
NIA:AN	+									
NIA:CL			+				+		+	+
NIA: CS	+									
NIA:DC	+		+	+	+		+	+	+	+
NIA:DP							+			
NIA:DR	+		+	+	+	+	+	+	+	+
NIA:ED	+	+	+	+	+	+	+	+	+	+
NIA:ET	+	+	+	+	+		+	+		+

NIA:EQ	+
NIA:TO	+ + +
NIA:MK	+ + +
NIA:PM	+ + + + + +
NIA:PR	+
NIA:QN	+ + +
NIA:RD	
NIA:RP	+ + + + +
NIA:SA	+ + +
NIA:ST	+ + + + + + + + + +
NIA:TO	+
NIA:YQ	+ + + + + + +
NMA:CL	+ + + + + + +
PRO:ED	+ + + + + + + + + +
PSS:AA	+
PSS:AD	+ + + + + + +
PSS:CS	+ + + + + + +
PSS:QN	+
PSS:SA	+ + + + + +
PSS:ST	+ +
PSS:YQ	+
PSS:TO	+
PSS:RD	+ +
SAT:AC	+
TXT:TO	+ + +
YYY:AC	+ + +
YYY:RD	+
YYY:YQ	+ + + + + + + + + +

(See Appendix A for interchange-speech act combination types' abbreviations)

Beginning from the age of 18 months, the frequency of the occurrence of each combination type is seen. Almost every type is seen in each age, but as the age increases, more complex combination types are used than has been seen with the first-born-female child. In addition, at the age of 30 months, all types of combinations are seen once as it was the case with other children.

Table 4.22 shows the frequency of interchange-speech act combinations used by the second-born-male child.

Table 4.22. The frequency of interchange-speech act combinations used by the second-born-male child

Interchange-speech act combination	AGE OF THE CHILD (MONTH) 18	20	22	24	26	28	30	32	34	36
DCC:QN									+	
DCC:RD										
DCC:AA							+			
DCC:PR							+	+	+	
DCC:SA									+	
DHA:AA									+	+
DHA: QN						+			+	+
DHA:RP										
DHA:RD						+		+	+	+
DHA: SA	+		+	+	+		+	+	+	+
DHA:ST	+	+	+	+	+	+	+	+	+	+
DHS:AC										
DHS:AA							+		+	
DHS:AD									+	
DHS:QN							+		+	
DHS:AN									+	
DHS:RD									+	
DHS:SA									+	
DHS:ST							+		+	
DHS:DP									+	
DJF:AA					+		+	+	+	+
DJF:AC							+			
DJF:AN					+		+	+	+	+
DJF:AD						+	+	+	+	+
DJF:QN									+	+
DJF:RD							+			+
DJF:RP										+
DJF:SA						+	+	+	+	+
DJF:ST							+		+	+
DJF:YQ							+			+
DJF:DP							+			
DJF:QA							+			
MRK:TO	+		+	+	+	+	+	+	+	+ +
MRK:MK									+	
NFW:DP							+	+	+	+ +
NFW:RD							+		+	+ +
NFW:YQ		+			+	+	+		+	+ +
NIA: AA					+	+	+	+	+	+ +
NIA: AD	+									
NIA: AC	+	+	+	+	+	+	+	+	+	+ +
NIA:AN	+									
NIA:CL			+				+		+	+
NIA: CS	+									
NIA:DC			+	+	+		+	+	+	+ +
NIA:DP							+			
NIA:DR	+									
NIA:ED				+		+	+			+
NIA:ET							+			+

NIA:EQ	+
NIA:TO	+ + +
NIA:MK	+ + +
NIA:PM	+ + + + + +
NIA:PR	+
NIA:QN	+ +
NIA:RD	
NIA:RP	+ + + + +
NIA:SA	+ + +
NIA:ST	+ + + + + + + + + +
NIA:TO	+
NIA:YQ	+ + + + + + +
NMA:CL	+ + + + + + +
PRO:ED	+ + + + + + + + +
PSS:AA	+
PSS:AD	+ + + + + +
PSS:CS	+ + + + + + +
PSS:QN	+
PSS:SA	+ + +
PSS:ST	+ +
PSS:YQ	+
PSS:TO	+
PSS:RD	+ +
SAT:AC	+
TXT:TO	+ + +
YYY:AC	+ + +
YYY:RD	+
YYY:YQ	+ + + + + + +

(See Appendix A for interchange-speech act combination types' abbreviations)

As the figures indicate in the table above, the second-born-male child also uses the same combination types more frequently like the first-born-male child. When we look at the frequencies and the types used, we see that there is a close similarity with the first-born-female and second-born-male child's usages, but second-born-male does not use speech act-interchange combinations as much as the second-born-female does. On the contrary, the age at which all types of interchange-speech act combinations used by the child is also same – 30 months – like the other three children.

4.4. Summary of Findings

In this study, the communicative act repertoires of children between 18 to 36 months are described, and summary measures of communicative acts are analysed. It has been observed that the major development during the period under study is in frequency and intelligibility of communicative attempts. After the age of 22 months, all four children try to communicate with their mothers relatively frequently. Before that age, in communication, they tend to use nonverbal behaviours and gestures, but among the participants the first-born-female is the one who uses nonverbal behaviours and gestures more than the others while the second-born-female is the one who uses them the least. By the age of 24, children produce more communicative attempts and more interpretable acts, at the same time; they also start to use more complex communicative acts. At the age of 24 months, all four children use almost every type of interchanges. Especially, the first and second born female child's results are very remarkable, only in frequencies is there a little difference: the second-born-female's rates are higher than those of the first-born-female.

While early communicative attempts tend to occur during a limited set of communicative interchanges (*Negotiating Immediate Activity, Discussing Joint Focus, Directing Hearer's Attention, Marking),* the variety of speech acts produced between the ages of 24 and 36 months is somewhat greater. The value of a pragmatic analysis which has been employed in this research, suggests an application after the late appearance of speech act categories, such as using *yes-no questions* as *requests* rather than right after the earlier appearance of *yes-no information questions*. It is clear that pragmatic

development must be investigated hand in hand with syntactic development if we are to understand the determinants of development (Kesli, 2001).

Furthermore, it has been suggested that pragmatic development depends on the use of speech act types, interchange types, and interchange-speech act combination types by the mother with their effective efforts of leading their children to play and communicate, which has also been figured out in the study done by Kesli, 2001. In addition to investigating the components of pragmatic development, in this study, the effects of birth order and gender have also been taken into consideration. The effects of these variables have been researched in depth, and found out that at the age of 30 months, children make use of all interchange-speech act combinations.

For the purpose of this study, the speech acts, interchange types, and interchange-speech act combination types, used by the first-born and second-born male and female children have been analyzed, and the results show that:.

- Among the first-borns, the female child produces a greater variety of speech act types, interchange types, and interchange-speech act combination types with higher frequency, starting at 20-months-old.
- Among the second-borns, again the female child produces more variety of speech act types, interchange types, and interchange-speech act combination types with higher frequency, starting at 18 months old this time. At the very least by having more chances to communicate with more people in the family, second born children are farther ahead when compared to first born children.

- Finally, whether first or second-born, female children's production rates are much higher than the male children's, but the second-born-female's production rates are also higher than the first-born-female's.
- Regardless of gender or birth order, at the age of 24 months all children use almost all of the interchange types, and at he age of 30 months, they make use of all types of interchange-speech act combinations.

Our study had the aim of finding out if there are differences in language use among children, depending on whether the child is female/male or first/later born. Furthermore, the study asks whether gender or birth order are related to differences among children in their rates of language development, including pragmatic development. Accordingly, these results indicate that there are certain differences in language use among children, depending on their being first or second born, female or male. In addition, the results show that birth order and gender certainly have effects on children's rates of language development, including pragmatic development.

CHAPTER 5

CONCLUSION

In this chapter, the procedures for collecting and analysing the data, and discussion of the results and findings for this study are summarised. As a final step, the limitations of the study and implications for further research are presented.

5.1. Summary of the Study

As indicated in Chapter 3, the purpose of this longitudinal study was to discover whether there are differences in language use among children, depending on whether they are female/male or first/later born. Furthermore, this study asked whether gender or birth order are related to differences among children in their rates of language development, including measuring their pragmatic development.

For this longitudinal study, 4 Turkish children, beginning with the age of 18 months and ending when they were 36 months old, were chosen as subjects. The birth order and the gender of children were the primary criteria in this study. The other criteria were that they came from Turkish-speaking families with university graduated mothers. Finally, the children were form the same socio-economic status with no evidence of hearing or speech impairment or developmental delay.

The participants and their mothers were videotaped for a duration of 40 minutes at their home every two months. During this 40-minute-period, the mothers were asked to play with the child using the contents in sequence of four boxes, containing a hand puppet, paper and crayons, a book, and a toy house.

The videotaped mother-child interactions were transcribed, and these transcriptions were compiled into computer files using the transcription conventions of the “Child

Language Data Exchange System" (MacWhinney & Snow, 1999). In these interactions, using the Inventory of Communicative Acts – Abridged INCA-A (Ninio, et. al., 1991), each communicative attempt by either the child or the mother were coded on three levels: the level of interpersonally agreed-upon *Interchange,* the specific communicative intent-*Speech Act* level, and the *Interchange-Speech act combination* level. These levels produced by each speaker were generated using the CLAN programs from CHILDES.

5.2. Discussion of the Results and Conclusion

Children's pragmatic development is considered to be the basis for their language development (Ninio & Snow, 1996). According to Ninio and Snow's study (1996), children- at the very beginning- utter a word in order to be understood by others, to show that they can understand others, and to declare their wishes. At the very beginning, these utterances are too short to be analyzed syntactically, nor can they be described in terms of semantics on their own; these utterances gain meaning only when they are analysed within the communicative context. In parallel with Ninio and Snow's findings (1996), as children get older, they start using these utterances within the proper meaning, and these utterances can syntactically and semantically be analysed.

Moreover, the communicative repertoires show that pragmatic development occurs in parallel with the children's language development and with the effects of their birth order and gender. Therefore, in order to describe children's pragmatic development, there occurs a need to observe their communicative attempts by first and second born children with different gender: female and male.

The degree of their pragmatic development varies, mainly according to their birth order, in leading themselves to communicate and in providing the appropriate input and

producing the appropriate output. In all of the four participants, age of 24 months is the turning point in terms of the usage of all interchange types. In addition, age of 30 months is another turning point for all of the participants in terms of the usage of almost all types of interchange-speech act combinations. However, these two turning points are the only two similarities among the participants. in line with this, the frequencies of communicative acts are almost the same.

The findings of this study have led us to the conclusion that female Turkish children in their first three years of life between 18 and 36 months display a high pragmatic development in their language The second born female child tends to use various speech act types with a few functions starting when she is 18 months, but as her age increases, she starts to use the same speech acts with different functions within various interchange types. On the other hand, the second born male child starts to use speech acts within various interchange types at later ages, such as after 24 months old. Gender is certainly one of the major factors affecting language development, and also together with birth order, this factor becomes more obvious, as the results of this study indicate.

5.3 Limitations of the Study and Implications for Further Research

In order to achieve the stated aims, we conducted a longitudinal design. As Fraenkel & Wallen (1991) state, longitudinal studies collect data from a sample of predetermined population over a long period of time, leading researchers to achieve more reliable findings and generalizations.

The four subjects chosen for this study were 18 months old at the very beginning of the study and were 36 months old at the end of the study. The small number of subjects can be a limitation for this study. With more subjects, the same study can be

conducted, and perhaps with the study being started at an earlier age; for instance, when the children are 12 months old data collection can start.

The results obtained from these subjects were generalised to all very young Turkish children in the period of language development. However, the validity and reliability of the measures of communicative intents were standardised with the "CLAN" program used for measuring the types of communicative intents produced by each child.

We assume that these limitations may be overcome through further studies, and in this way, more input for the research with more validity can be provided. The results presented in this study provide a second step in answering persistent questions about the place of pragmatics as a theory of language development; the first step was Keşli, 2001's cross-sectional study on the same topic without taking birth order and gender into consideration, and through more longitudinal surveys in different languages, more detailed outcomes can be provided to make comparisons among the languages in further researches. Moreover, a study with the preschool children can be conducted as a follow-up study on story retelling in first and second language acquisition.

This study provides a basis for understanding the second language learning and teaching procedure in regard to pragmatic development. This study done in the field of first language acquisition will shed light on the further studies in the field of SLA. Syntactic, semantic, lexicon, and phonetic studies in SLA should be supplemented by the pragmatic development studies in order to achieve more effective teaching and learning of any second language with appropriate methods and techniques.

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APPENDIX A

INCA-A: INVENTORY OF COMMUNICATIVE ACS-ABRIDGED

The original preparation of the coding system and coding manual was supported by Grant no. 2467/81 from the United States-Israil Binational Science Foundation to Anat Ninio and Carol Eckerman. The abridgement and the adaptation of the system were supported by NIH Grant HD233888 to Catherine E. Snow.

This coding manual presents a system for analysing communicative intent in children's and adult's speech that is based on a more elaborate system developed by Anat Ninio and Polly Wheeler in 1981-83 (Ninio&Wheeler, 1984a,b). The version described here differs from the original Ninio&Wheeler classification system primarily in three respects: the original 65-category interchange classification has been collapsed to 22 major interchange types; the discourse level codes of the original are not implemented; and lastly, several new third level tags were added. The latter were added in order to aid in the computerised retrieval of information regarding, for example, the presence of nonverbal behaviours integral to the interpretation of very young children's intents. Users familiar with the full Ninio&Wheeler system may also notice a number of other more minor modifications.

For certain research questions, researchers may find the full Ninio&Wheeler system or an alternative abridged form of the system to be more appropriate than the one presented here. A copy of the unabridged system may be obtained by writing to Ninio, Department of Psychology, The Hebrew University, Jerusalem,91905,Israil.

How to use the coding manual

Those new to the present system will probably want to begin by reading Section I, Introduction to the Inventory of Communicative Acts, and the brief descriptions of interchange and speech act codes given in the first two parts of Section II. Section II may also be extracted for use as a quick reference guide for coders familiar with the system. Section III provides descriptions of specific interchange-speech act combinations.

I. Introduction

The following is a coding system for the categorisation of social action performed in the context of mother-infant communication. The system was constructed in order to investigate the acquisition of language for social-communicative purposes.

This system codes talk on two levels: that of the single utterance and that of the interchange, the latter consisting of several related utterances by one or both participants. Both kinds of units are defined functionally as well as grammatically: the codable utterance is either a clause or a sentence by which a speaker performs a single social act, whereas the interchange is one or more rounds of talk, all of which serve a unitary interactive function. The system, then, consists of two subsystems, each of which codes for a different type of social action.

In both cases, the analysis is communicative rather than strictly functional. One of the levels of the utterance, what is coded for is the intended illocutionary act. On the level of the interchange, what is coded for is speaker's overt framing (i.e. defining) of the immediate social situation. In talking, speakers operate on states and events of the immediate social situation in various different ways. For example, they

- negotiate the occurrence and the characteristics of ongoing and future states and events;
- mark the occurrence of some event;
- establish and sustain a state of conversation;
- perform verbal moves of rule-bound activities: and
- meta-communicative about unsuccessful communication.

Accordingly, types of interchanges may be described in terms of the kind of operation they exert on social interaction. That is:

Negotiations consist of directives to hearer to bring about some future state of affairs, of commitments by which speaker undertakes to bring about some state of affairs, and of declarations that some state obtains.

Markings signal or acknowledge the occurrence of an answer. Markings are contingent on the occurrence of an event but do not indicate it since the event is that represented verbally by the utterance.

Discussions consist of the exchange of information on various topics.

Performances of verbal moves in games and other rule-bound activities count as meaningful units within the framework of those games. The meaning of such utterances is desirable only in reference to the relevant game and its rules.

Meta-communications consist of demands for clarifications, or else of various statements about them.

In addition to defining interchanges, the İNCA-A system further distinguishes the following interchanges according to the states and events they operate on:

Negotiations are distinguished according to the state or event that is being decided on, namely:

- Negotiation of co-presence (NCS)
- Negotiation of mutual attention (NIM)
- Negotiation of immediate activity (NIA)
- Negotiation of activity expected to occur in the far future (NFA)
- Negotiation of activity within the realm of fantasy play (NFW)

Note that the full Ninio & Wheeler system distinguishes among 27 different talk interchange types where the abridged İNCA_A codes the major interchange category of NIA, according to the phase of the activity that is being negotiated.

Discussions are distinguished according to the immediateness of their topic:

- Topic is the focus of joint attention DJF)
- Topic is a recent event (DRE)
- Topic is the non-present or non-observable (DNP)
- Topic is related to the present (DRP)
- Topic is fantasy world (DFW)
- Topic is speaker's or hearer's inner feelings and states (DSS;DHS)
- Topic is the possession of objects (PSS). Note that PSS sometimes involves negotiation as well.

Meta-communications are distinguished according to the kind of communicative move which is clarified:

- Verbal communication (DCC)
- Nonverbal communication (DCA)

Markings and Performances are not distinguished further in the abridged INCA-A.

II. Codes and Definitions

This section provides a brief list of codes and definitions for interchanges (Section A) and for speech acts (Section B) Interchanges are listed alphabetically, and speech acts describes rule for coding non-verbal and partially unintelligible utterances. These are guidelines drawn up for use in the Foundation for Language Assessment in Spontaneous Speech project (the Grant No.HD23388).These guidelines have proved especially useful in coding communication of very young children on a of special populations. These guidelines would presumably be less useful in coding speech of older children and adults. Similarly, Section D describes other features our laboratory found important to tag on a third level, so that information could be retrieved automatically using the CLAN computer programs of CHILDS (MacWhinney&Snow, 1985, 1990).While the features coded here may be of less interest to other laboratories, they are included here as illustrations of how particular features may be examined separately, without modifying the basic coding scheme.

A. Categories of interchange: Codes and definitions.

CMO COMFORTING

Function: to comfort hearer, to express sympathy for misfortune.

DCA DISCUSS CLARIFICATION OF ACTION

Function: to obtain clarification of hearer's nonverbal communicative acts.

DCC DISCUSS CLARIFICATION OF VERBAL COMMUNICATION

Function: to obtain clarification of hearer's ambiguous verbal communication or a confirmation of S's understanding of it.

DFW DISCUSS FANTASY WORLD

Function: to hold a conversation within fantasy play.

DHA DIRECTING HEARER'S ATTENTION TO OBJECTS AND PERSONS

Function: Directing hearer's attention to objects, persons and events in the environment, preparatory to negotiating activity or discussing a joint focus.

DHS DISCUSSING HEARER'S NON-OBSERVABLE THOUGHTS AND FEELINGS

Function: to hold a conversation on hearer's non-observable thoughts and feelings

DJF DISCUSSING A JOINT FOCUS OF ATTENTION

Function: to hold a conversation on something observable in the environment that both participants attend to, e.g., objects: persons: ongoing actions of hearer and speaker: ongoing events.

DNP DISCUSSIONS THE NON_PRESENT

Function: to hold a conversation about topics, e.g., past and future events and actions, distant objects and persons, abstract matters. Excluding conversations about hearer's and speaker's inner states.

DRE DISCUSSING A RECENT EVENT

Function: to hold a conversation on immediately past actions or events.

DRP DISCUSSING THE RELATED-TO-PRESENT

Function: to discuss non-observable attributes of objects or persons present in the environment or to discuss past or future events related to those referents.

DSS DISCUSSING SPEAKER'S NON-OBSERVABLE THOUGHTS AND FEELINGS

Function: to hold a conversation on speaker's non observable thoughts and feelings.

MRK MARKING

Function: to express socially expected sentiments such as thanking, apologizing, etc. or to mark some event.

NCS NEGOTIATE CO-PRESENCE AND SEPERATION

Function: to manage the transition.

NIA NEGOTIATING THE IMMEDIATE ACTIVITY

Function: to negotiate the initiation, continuation, ending and stopping of activities and acts; to direct hearer's and speaker's acts; to allocate roles, moves and turns in joint activities; to evaluate speaker's or hearer's acts as correct or incorrect, desirable or undesirable

NFA NEGOTIATE AN ACTIVITY ON THE FUTURE

Function: to negotiate actions and activities in the far future.

NFW NEGOTIATING FANTASY WORLD ACTIVITY

Function: to negotiate actions and activities within fantasy play.

NMA NEGOTIATE MUTUAL ATTENTION AND PROXIMITY

Function: to establish mutual attentiveness and proximity or withdrawal:

PRO PERFORMING VERBAL MOVES IN AN ACTIVITY

Function: to perform moves in a game or other activity by uttering the appropriate verbal forms.

PSS NEGOTIATING POSSESSION OF OBJECTS

Function: to determine who the possessor of an object is

SAT SHOWING ATTENTIVENESS

Function: to demonstrate that speaker is paying attention to hearer

SDS SELF-DIRECTED SPEECH

Function: speaker engages in speech which is clearly not addressed to present hearer

TXT READ WRITTEN TEXT

Function: to read written text aloud.

B. Speech acts codes, categories and definitions, by major pragmatic force.

Directives and responses

AC Acknowledge verbal or nonverbal communications.
AD Agree to do- agree to carry out act requested or proposed by other.
AL Agree to do for the last time.
CL Call attention to hearer by name or by substitute exclamations.
CS Counter-suggestion: an indirect refusal.
DR Dare-challenge hearer to perform action.
GI Give in: accept other's insistence or refusal.
GR Give reason; justify a request for action, refusal or prohibition, etc.
RD Refuse to do-refuse to carry out act requested or proposed by other. Including refusals by giving excuses and reasons for non-compliance.
RP Request/propose/suggest action for hearer. Proposed action might also involve speaker.
RQ Yes/no question about hearer's wishes, ability, and intentions which functions as a suggestion.
SS Signal to start performing an act, e.g., to run or roll a ball. Pace performance of acts by hearer.
WD Warn of danger.

Speech elicitation and responses

CX Complete text if so demanded.
EA Elicit onomatopoeic sounds.
EC Elicit completion of word or sentence.
EI Elicit imitation of word or sentence, either with or without explicit command.
EX Elicit completion of role-learned text.

RT Repeat/imitate other's utterance.

SC Complete statement or other utterance in compliance with request eliciting completion.

Commitments and responses

FP Ask for permission to carry out act by speaker.

PA Permit hearer to perform act.

PD Promise.

PF Prohibit/forbid hearer to perform act; protest hearer's act

SI State intent to carry out act by speaker.

TD Threaten to do.

Declarations and responses

DC Declare = create a new state of affairs by declaration.

DP Declare (fantasy) = create make-believe reality by declaration.

ND Disagree with a declaration.

YD Agree to a declaration.

Markings and responses

CM Commiserate, express sympathy for hearer's distress.

EM Exclaim in distress, pain, or other negative emotional reactions

EN Endearment = express positive emotion.

MK Mark occurrence of event

TO Mark transfer of object to hearer

XA Exhibit attentiveness to hearer

Statements and responses

AP Agree with proposition expressed by previous speaker.

CN Count.

DW Disagree with proposition expressed by previous speaker.

ST State = make a declarative statement.

WS Express a wish.

Questions and responses

AA Answer in the affirmative to yes/no question.

AN Answer in the negative to yes/no question

AQ Aggravated question = express disagreement by re-asking question.

EQ Eliciting question = (e.g., hmm?).

NA Non-satisfying answer to question.

QA Answer a question with a wh-question.

QN Wh-question = ask a product-question.

RA Refuse to answer.

SA Answer a wh-question by a statement.

TA Answer to TQ.

TQ Limited alternative question.

YA Answer a question with a yes/no question

YQ Yes/no question = ask a yes/no question

Performances

PR Perform verbal move in game; answer to EA.

TX Read/recite written text aloud.

Evaluations

AB Approve of appropriate behaviour. Express positive evaluation of hearer's or speaker's acts.

CR Criticise = point out error in nonverbal act.

DS Disapprove, scold, protest disruptive behaviour.
Express negative evaluation of hearer's or speaker's behaviour as inappropriate.

ED Exclaim in disapproval/dismay.

ET Exclaim in surprise or enthusiasm.

PM Praise performance.

Demands for clarification

PR Re-run a request = request to repeat utterance.

Text editing

CT Correct verbal error (may be correction of either form or content).

C. Guidelines for coding non-verbal and partially unintelligible utterances.

Nonvocal communicative acts. Nonvocal acts (e.g, pointing, head shaking, tugging, etc…) should be coded as speech acts if there is clear evidence that they are communicative. Nonvocal acts may occur in isolation or in conjunction with speech, vocalisations or whines. The following scenarios may be anticipated:

a. Nonvocal act unaccompanied by speech, vocalisation or whines where there is no clear evidence that the act was intentionally communicative: do not code for interchange or speech act.

b. Do not code nonverbal acts which accompany speech, but which add no further clarification to the verbal move.

c. Nonverbal act unaccompanied by speech, but with clear evidence that the act was intended to be communicative: code for interchange and/or speech act, if possible; otherwise, substitute YYY and/or yy; follow interchange and speech act code with the tag :IN to indicate that the act was nonverbal.

d. Nonvocal act which accompanies speech and which clarifies the intent the child expressed verbally: code as usual but append the tag :IN to indicate that the child's communicative intent was intelligible in part because of the accompanying nonverbal act.

Unintelligible and partial1y intelligible utterances. If the transcriber can make a good guess as to what word(s) the child is attempting, the target word(s) should appear on the main line in the transcript (possibly followed by a %pho tier). Such utterances should be coded using the same codes as unambiguous speech. If it is impossible to interpret what the child says, it should appear in the CHAT transcript in one of two forms: either xxx or yyy.

The notation xxx indicates that the utterance was unintelligible and no phonetic transcription was possible. Such cases are generally due either to background noise at the time of videotaping, to the child1s orientation relative to the microphone, or to overlapping speech by the child's interlocutor. If it is impossible to infer from the context either the child's intent or the probable nature of the interchange, the utterance should be coded 000:00. If one cannot discern the form of the child's utterance but can infer the interchange of which it is a part, the utterance should be coded with the appropriate interchange code, followed by 00.

The notation yyy on the main line is always followed by a dependent phonetic tier showing the phonetic transcription of the child's utterance. If one cannot infer from the context either the child's intent or what the interchange might be, the utterance should be coded YYY:YY. If one can infer the interchange, the utterance should be coded for interchange as usual, followed by YY in place of the speech act code. Note that Ninio & Wheeler's XXX:XX category includes both utterances which we code with an interchange code followed by YY and those which we code **YYY:YY.**

D. Other third-level tags

In addition to the :IN tag, the following characteristics are also noted, for the time being, on the third tier:

1. If the referent in a DHS or DSS interchange is not the mother or a third party instead of the child$_1$ tag using :M for "mother" or :0 for "other".
2. For sarcasm, teasing, or other intents which are expressed non-literally, tag using :NL following the usual interchange-speech act codes.
3. Utterances in which the speaker is speaking for an inanimate object should be tagged: SF following the usual interchange-speech act codes.

III. Interchange-Speech Act Combinations

The remainder of the manual consists of descriptions of particular Interchange-Speech Act combinations. They are listed in alphabetical order by interchange and within interchange$_1$ by speech act. This is not meant to be an exhaustive compilation of possible combinations. Rather it is a guide to combinations which commonly occur or which may be confused with other categories. We anticipate that this section will continue to be revised and updated with specific examples. The following example will illustrate the format used in these descriptions.

DJF:ST Statements with falling intonation about joint focus of attention: labelling statements.
- If statement is an answer to a question, code SA, AA, AN.
R: DJF:AP, DJF:DW, DJF:CT, DJF:RT.

This entry describes propositions (ST) stated within a joint focus of attention (DJF), including labelling of objects which are the joint focus of attention. Following the basic description given is a notation of how this speech act contrasts with others. In this case, the coder is instructed that a statement which is the answer to a question should be coded ***SA,*** AA, or AN rather than as ST. Finally, the coder is given a list of interchange-speech act types likely to follow a DJF:ST.

Speech acts which are responsive speech acts are defined as such. For example, in the following, DJP:AP is defined as R to DJP:ST (response to a DJF:ST):

DJF:AP R to DJF:ST. Agree with proposition. Imitate H's previous utterance in order to indicate agreement. Agree with H's nonverbal communication.

CMO: COMFORT.

Function: To comfort hearer, to express sympathy for misfortune.

CMO: CM Commiserate, offer condolences, show sympathy.

Comfort or reassure. Exclaim in distress over H's misfortune. Inquiring about H's feelings or whether a misfortune befell him, if accompanied by expressions of commiseration. Utter endearment as an act of commiseration.

- If expressions of commiseration are absent and utterance merely describes a potentially distressing event (such as H's falling), code DRE. If event is marked rather than described, code MRK: MK.

CMO:RP Offer to alleviate H's distress by, e.g., kissing him.

CMO:ST Give information to help console, e.g., "Mommy's right here."

DCC: DISCUSS CLARIFICATION OF VERBAL COMMUNICATION AND WORD:LIKE VOCALIZATIONS.

Function: To obtain clarification of hearer's actions ambiguous verbal or vocal communication or a confirmation of speaker's understanding of it.

DCA: DISCUSS CLARIFICATION OF HEARER'S NONVERBAL COMMUNICATIVE ACTS.

Function: To obtain clarification of hearer's actions (not necessarily communicative) or nonvocal communicative acts.

NOTE: DCC and DCA are coded similarly; when coding clarification of nonverbal communication, substitute DCA interchange for DCC below:

DCC:AA R to YQ. Affirmative answer to yes/no question. S may answer own question.

DCC:AN R to YQ. Negative answer to yes/no question. S may answer own question.

DCC:QN Wh-question which asks for clarification, including cases where S has understood part of the H's utterance and requests clarification of the rest.
-If S asks for repetition of H's entire utterance by asking "what?", code DCC:RR.
R: SA.

DCC:RP Request for clarification or confirmation. ("Tell me . ..")
R: AD, RD, CS, ST.

DCC:RR Rerun request, e.g., 'what?'. Request to repeat or rephrase utterance.
R: Code as the original utterance.

DCC:SA R to QN. Answer to wh-question. S may answer own question.

DCC:ST Declare that H's utterance/act was not clear to S. R to SA, AA, AN. State that utterance was understood.

DCC:TQ R to RP. Give information to clarify or confirm.
Two-alternative yes/no question.
R: AA, AN.

DCC:YQ Yes/no question. Demands for confirmation of affirmative or negative answers.
-If question is a request for agreement with S's opinions rather than aimed to clarify what H meant in a previous utterance, code DJF:YQ or DNP:YQ, etc., but not as DCC or DCA.
R: AA, AN.

Associates:

DHS, DSS Discuss H's non-observable state. Questions about H's feelings, physical states, etc.

DHA: DIRECT HEARER'S ATTENTION

Function: To direct hearer's attention to objects, persons and events in order to establish joint focus of attention. (Note that once joint focus is achieved, the interchange shifts out of DHA and into DJF, NIA, etc. Therefore, the response to DHA:QN, for example, would be DJF:5A, NIA:SA, etc.).

DHA:QN Ask rhetorical where-question about whereabouts of object in order to draw attention to it. Other wh-questions used to draw attention to objects, e.g., "What is this?"

-If S does not know the whereabouts of the object in question, code DNP, even though the object may in fact turn out to be in the immediate environment. If the object is in the immediate environment, the answer will be coded DHA. If the object is not in the immediate environment or the hearer does not know the whereabouts of the object, the answer is coded DNP.

DHA:RP Request H to look or to attend to specified object, $event_1$ person (e.g, “look at the ball.”).

DHA:RT R to DHA:QN. Imitate part of wh-question without providing answer, e.g., by pointing.

DHA:ST Statement providing information about the whereabouts of object in order to draw attention to it (e.g., ‘look, there's an Indian.’).

Attention-directing statements which provide information about the object (e.g., "look at the red ball.").

DHS: DISCUSS HEARER'S NONOBSERVABLE THOUGHTS AND FEELINGS.

Function: To hold a conversation on hearer's non-observable thoughts and feelings. This includes inner states, feelings and sensations (i.e. hunger, thirst) but not knowledge states.

DSS: DISCUSS SPEAKER'S NON-OPSERVABLE THOUGHTS AND FEELINGS

Function: To hold a conversation on speaker's non-observable thoughts and feelings.

NOTE: DSS is coded on the model of DHS as outlined below, with the exception of the three speech acts listed last, which are specific to DSS. The referent in the opening move of the interchange determines whether the interchange will be coded DHS or DSS, and that code applies throughout the episode. In interactions between mothers and young children, the referent in such discussions is usually the child rather than the mother or a third party. If the referent is not the child, tag with :M (for mother) or :0 (for other) following the speech act code.

Note also that utterances about knowledge states (e.g., "you know the name of that") are not coded DHS or DSS; rather they should be coded within the ongoing interchange.

DHS:AA	R to DHS:YQ. Positive answer to yes/no questions. Including "no" to a negatively phrased question.
DHS:AN	R to DHS:YQ. Negative answer to yes/no questions.
DHS:AP	R to DHS:ST. Agree with proposition.
DHS:CT	Correct H's erroneous utterance, i.e., substitute a correct word for H's error. Complete broken sentences.
DHS : DW	R to DHS:ST. Disagree with proposition.

DHS:GI Give in: accept H's last word to end argument.

DHS:QN Wh-questions (e.g., "what do you think?" about a joint focus).
R: DHS:SA.

DHS : SA R to DHS:QN.

DHS : ST Statements.
-If statement is an answer to a question, code SA, AA, AN.
R: DHS:AP, DHS:DW, DHS:CT.

DHS:YQ Yes/no questions. Statements with a rising intonation. Tag-questions. Wh-questions which are immediately answered by the same S with a rising intonation.
-If S is demanding clarification or confirmation of the meaning of H's acts, e.g., whether H intended to communicate that he wants some object, code DCA:YQ.
-If question is about H's wishes and functions as suggestion for H (and/or others) to do, code NIA:RQ.
R: DHS:AA, DHS:AN.

Specific to DSS:

DSS:EM Express distress, misery on one's own misfortune.
-If distress is over H's misfortune, code CMO:EM.

DSS:EN Express positive emotion toward H, e.g., "I love you."

DSS:WS Express a wish.

Associates:

DJF: Discuss observable behaviour, rather than inner states, feelings, sensations.

NIA:SI State intent to do.

DISCUSSION INTERCHANGES: Note that many speech acts within the following five discussion interchanges are coded similarly Speech acts whose definition in other discussion interchanges is the same as in the DJF interchange are described only under DJF using the DJF interchange *as* model speech acts which have meanings specific to particular interchange are described under the relevant interchange.

DJF DISCUSS JOINT FOCUS OF ATTENTION

Function: To hold a conversation on something observable in the environment that both participants attend to, e.g., objects, persons, ongoing actions of hearer or speaker, ongoing events.

DNP: DISCUSS THE NON-PPESENT.

Function: To hold a conversation about topics which are not observable in the environment, e.g., past and future events and actions, distant objects and persons, abstract matters (e.g., definitions of words).

DRP: DISCUSS THE RELATED-TO-PRESENT.

Function: To hold a conversation about the non-observable attributes of objects or persons present in the environment or to discuss past or future events related to those referents.

DRE DISCUSS A RECENT EVENT.

Function: To hold a conversation on immediately past actions and events.

DFW: DISCUSS FANTASY WORLD.

Function: To hold a conversation about objects, people or events within fantasy play.

DJF:AA R to DJF:YQ. Positive answer to yes/no question. Including Insoles to a negatively phrased question.

DJF:AN R to DJF:YQ. Negative answer to yes/no question. Including “yes" to a negatively phrased question.

DJF:AC R to DJF:ST, etc. Acknowledge H's bid for attention without simply repeating H's utterance.

DJF:AP R to DJF:ST. Agree with proposition. Imitate H's previous utterance in order to indicate agreement. Agree with H's nonverbal communication. Praising the demonstration of knowledge

-If S acknowledges or not minded agrees with H, code DJF:AC.

DJF:CT R to DJF:ST, DJF:SA etc. Immediate correction of hears utterance. Correction may be a substitution or a completion which corrects morphological form (sea ballh for "ball"), phonological form (""abrella" for "bella") or content (by providing correct label). NOT code incidental phonological correction (e.g., distortions).

-If S disagrees with what H said but does not provide correct alternative,

code DJF:DW.

DJP: DW R to DJF:ST. Disagree with proposition. Challenge truth of labelling and other statements. Disconfirm S's proposition.

DJF:EC Elicit completion of word or sentence by it. Prompt labelling by uttering unfinished words, etc.

-If S elicits completion of rote-learned text (e.g., poems), code PRO:EX.

-If S requests recitation of rote-learned text, code NIA:RP,

DJF:EM Exclaim in distress, pain, or other negative emotional reactions.

DJF:EN Express positive emotion.

DJF:EQ Elicit response to S's previous unanswered or acknowledged utterance.

May be either empty or repetition of S's utterance, intended to elicit response by H.

DJF:GI R to responses. Give in: accept H's last word to end argument.

DJF:MK Empty exclamation (e.g., “oh!”)during discussion of joint focus of attention

-If exclamation relates to event outside the joint focus of attention (e.g., child falling off chair while looking at book with mother), code MRK:MK.

DJF:NA R to QN, DJF:YQ. H intentionally supplies non-satisfying answer to question.

DJF:QA R to DJF:QN, DJF:YQ. Wh-question given as reply to questions.

DJF:QN Wh-questions Requests to answer a wh-question.

R: DJF:SA, DIF:QA, DJF:YA, DJF:NA, WF:RA.

DJF:RA R to DJF:YQ or other question. Refuse to answer question.

DJF:RP Request H to show or point out an object, during a discussion.

R: DJF:AD (e.g., "there" accompanied by pointing); DJF:RD; DJF:ST if answer provides information (e.g., "the dog is under the tree.).

Direct *H* to look at an existing joint focus of attention (e.g., "look at the ball!" where the H is already focused on the ball).

DJF:RT R to DJF:ST. Repeat H's utterance spontaneously.

-If utterance functions to approve or disagree with H's proposition$_1$ code DJF:AP or DJF:DW.

-If utterance functions to elicit clarification, code DCC:RT.

DJF:SA R to DJF:QN. Statement given as reply to wh-question.

DJF:SC R to DJF:EC. Complete incomplete statement if so demanded.

-If completion is help with finishing broken sentence, code DJF:CT.

DJF:ST Statements with falling intonation about joint focus of attention. Labelling statements.

-If statement is an answer to a question, code SA, AA, AN.

-If statement is a definition of a word, code DNP.

R: DJF:AP, DJF:DW, DJF:CT, DJF:RT.

DJF:TQ Limited alternative yes/no question.

R: as to YQ.

DJF:YA R to DJF:QN, DJF:YQ. Yes/no question given as reply to questions.

DJF:YQ Ask a yes/no question, or request to answer one. Requests for confirmation of S's utterance or for agreement with it. Statements with rising intonation. Isolated tag-questions, e.g., "Right?" Tag questions following statements. Wh-questions which are immediately answered by the same S with a rising intonation.

-If the question intends' to clarify H's previous utterance, code DCC.

R: DJF:AA, DJF:AN, DIF:QA, DJF:YA, DJF:NA, DJF:RA, DJF:AP, DJF:DW.

Other DFW speech acts:

DFW: DP Declare make-believe identity for objects and events.

Declare make-believe attributes, abilities, states of objects.

R: DFW:YD, DFW:ND.

DFW:ND R to DFW:DP. Disagree with (not accept) the make-believe identity declared by S.

DFW:YD R to DFW:DP. Agree to the make-believe identity declared by S.

NOTE: Within fantasy play, when S is speaking for an inanimate object, code as usual and append the tag: SF following the speech act code.

Other DRP speech acts:

DRP:EA Elicit onomatopoeic sounds, e.g., the habitual sounds made by animals, in the context of discussion of joint focus, (e.g., asking sound made by animal pictured in book).

-If in context of routine, code PRO:EA.

R: DRP:PR

DRP: PR Produce onomatopoeic sounds related to a joint focus.

MRK: MARKING

Function: To express socially expected sentiments such as thanking apologising, etc.; to mark some event.

MRK:MK Express socially-expected sentiments (e.g., thanking H for a helpful act performed for S'S advantage, acknowledging H's thanking, marking 11e5 sneezing, greetings, etc.). Marking of an object tangentially related to the ongoing communicative activity. Marking of events (either integral or tangential to) the ongoing Communicative activity.

-If marking an object which has been established as the joint focus of discussion, code DJF:MK.

-If marking action completion or transition from one activity to another (e.g., 'snow then"), code NIA:MK.

-If exclaim in enthusiasm (e.g., “yeah!”), NIA:ET

MRK:TO Mark the transfer of object to H, e.g., "here Mom".

-If the transfer functions as request/propose activity with the object, code NIA:TO.

NEGOTIATION INTERCHANGES: Note that many speech acts within the following five negotiation interchanges are coded similarly. Speech acts whose definition in other negotiation interchanges is the same as in the NIA interchange are described only under NIA using the NIA interchange as model; speech act which have meanings specific to a Particular interchange are described under the relevant interchange.

NOS: NEGOTIATE COPRESENCE AND SEPARATION

Function: To manage the transition between co-presence and separation.

NIA: NEGOTIATING THE IMMEDIATE ACTIVITY

Function: To negotiate the initiation, continuation, ending and stopping of activities and acts; to direct hearer's and speaker's acts: to allocate roles5 moves and turns in joint activities; to evaluate speaker's or hearer's acts as correct or incorrect, desirable or undesirable.

NFA: NEGOTIATE ACTIVITY IN THE FAR FUTURE

Function: To negotiate actions and activities in the far future.

NFW: NEGOTIATE FANTASY WORLD ACTIVITY

Function: To negotiate actions and activities within fantasy play.

NMA: NEGOTIATE MUTUAL ATTENTION.

Function: To establish mutual attentiveness and proximity without Simultaneously negotiating activity.

NIA:AA R to NIA:YQ. Positive reply to yes/no question, including "no" to a negatively phrased question.

NIA:AB Approve of appropriate behaviour. Express positive evaluation of H's or S's acts. Approve H's compliance with S's previous directive. Approve H's appropriate use of given materials.

-If S praises H's motor performance as good, code NIA:PM.

-If S praises product of H's activity (e.g., "what a nice drawing"), code NIA:ST

-If S previous directive elicits speech (e.g. EC, El), than code NIA:AP

NIA:AC Acknowledge H's bid for attention without simply repeating H's utterance.

-If S acknowledges H by repeating H's utterance, code NIA:RT.

-If S acknowledges H without H making any bid for attention, code SAT:XA.

NIA:AD R to NIA:RP. Agree to carry out act requested$_1$ proposed by other.

R: NIA:GI, NIA:RD.

R to NIA:DS, DR, TD. Agree to do when challenged, scolded or threatened.

R to NIA:RQ. Answer affirmatively to questions about wishes, including questions about wishes to be helped.

R to NIA:RP. Agree to other's proposal to help.

R to NIA:PF, DS, ED, PP, TD, WD. Agree to stop/ not to do forbidden act; agree to end activity.

NIA:AL R to NIA:RP, NIA:SI, NIA:FP. Agree to repeat for last time or permit to repeat for the last time.

NIA:AN R to NIA:YQ. Negative answer to yes/no questions, including "yes" to negatively phrased question.

-If S is asking for clarification of verbal or nonverbal communicative act, code DCC:AN or DCA:AN.

NIA:AP R to NIA:ST, NIA:RT. Agree to statements. Praise H's demonstration of knowledge

To approve H's compliance with S's previous speech elicitation.

NIA:CL Call H in order to stop him from performing act or continuing activity.

Call H in order to prevent his starting intended activity.

-If there are no prosodic cues that the call is a warning, or is prohibitive in nature, code NMA:CL.

NIA:CR Criticise H's or S's motor (nonverbal) performance as incorrect. Point out error in nonverbal act.

-If behaviour is forbidden rather than incorrect, code DS.

NIA: CS Counter suggestion (i.e., suggestion which simultaneously functions as an indirect refusal to the H's preceding suggestion and alternative proposal for activity).

-If there is a direct refusal, code RD.

R: AD, RD, CS.

Indirect prohibition of H's act or intent, in the form of an alternate proposal (e.g., "just look").

NIA: DC Declare or create a new state of affairs, including declarations that a game is being played, that a new activity is being performed, and allocation of roles and turns.

R: NIA:YD,' NIA:ND.

Declare general rule created by S. Do rules only.

-If utterance makes reference to script rule, e.g.$_1$ one that exists independently of S, code ST below.

R: NIA:YD, NIA:ND$_1$ NIA:AD, NIA:RD.

Declare that activity is over or that participants have had "enough" of it--in order to end it (e.g., "all done")

-If & is merely marking (non-propositionally) action completion or transition from one activity to another (e.g., "now then'), code NIA:MK.

R: NIA:AD, NIA:RD, NIA:ND, CS.

NIA:DR Dare, challenge H to start new activity.

NIA: DS Disapprove, scold, protest disruptive behaviour.

Express negative evaluation of H's or S's behaviour as inappropriate.

-If S is pointing out error in motor act rather than disapproving inappropriate behaviour, code

NIA: CR.

R: NIA:AD, NIA:RD.

Rhetorical questions expressing disapproval, e.g., "What are you doing?"

NIA:DW R to NIA:ST, NIA:RT. Disagree with statements.

NIA:EC Elicit completion of word or sentence.

R: NIA:SC, AD, RD, CS.

NIA:ED Exclamation of disapproval of H's or S's acts (e.g., "aaugh!").

NIA:EI Elicit imitation of word or sentence, either with or without explicit command.

R: NIA:RT, RD, AD, CS.

-If S elicits completion of text, code NIA:EX.

-If S elicits onomatopoeic sounds, code SA.

NIA:EQ Elicit response to S's previous unanswered or unacknowledged utterance. May be either empty (e.g. "huh") or repetition of S's utterance intended to elicit response by H.

NIA:ET Exclamation of surprise or enthusiasm, for H's or S '5 performance.

-If S is praising motor act, code PM.

NIA:EX Elicit completion of text (e.g.,"the fireman goes with the _____").

NIA: FP Ask for permission for S to start or carry out new activity, including asking for permission to help

H. Note: must show evidence that S is clearly soliciting permission (e.g., waits for answer before proceeding).

R: NIA:PA, NIA:PF.

NIA:GI R to NIA:RD, DW and (if insistent) to NIA:RP, SI, DP. Give in; accept other's refusal to start/do/repeat activity.

R to NIA:PF. Give in: accept H's forbidding, prohibition.

R to ND or DC, DP if insistent. Give in: accept disagreement or insistence.

R to NIA:RD, PP. Give in, accept refusal to be helped.

R to NIA:RD, ND. Give in: accept H's refusal to engage in or end activity.

NIA:GR Statements providing information about an intended action or about a directive, e.g., explaining reasons for giving it.

Statements explaining request for help, or reasons for refusing, etc. if in addition to requests or refusals, etc.

Statements explaining reasons for agreeing to do.

Statements providing information about prohibition, e.g., explaining prohibition by characteristics of object (as dirty or inappropriate); by impossibility to perform

activity; by reference to script rules (not according to what should be done flow), or any other statement functioning to help forbid activity.

NIA:MK Marking action completion or transition from one activity to another (e.g., "now then").

-If S declares that activity is over or that participants have had "enough" of it in order to end activity (e.g., "all done."), code NIA:DC.

NIA:ND to NIA:DC. Disagree with declarations.

-If disagreement is counter Suggestion, code Cs.

R: CI, DC, ND, CS.

NIA:PA R to NIA:SI, FP, RP. Permit H to carry out activity/intent as he wishes.

R to NIA:S1, NIA:FP. Permit H to help.

NIA:PD R to NIA:RP Promise to comply later, refuse to comply at once. Promise to allow or permit later.

-If S prohibits for the time being (e.g., "not now"), but does not promise to allow later, code

Promise/predict future event will result from ongoing activity (e.g., "something will happen").

-If S provides information helpful or necessary for activity, code NIA:ST (e.g., "if you turn the handle, the clown will pop up").

R to NIA:RP. Promise to help later, i.e., refuse to help at once.

NIA-PF R to NIA:SI, NIA:FP, and NIA:RP. Forbid H to carry out activity or intent, withhold permission. Protest H's act. Request to stop. Declare that act is forbidden. Prohibit for the time being, without promising to allow later (e.g., "not now"). Rhetorical questions about whether act is forbidden (or permitted) when it is mutually understood that it is forbidden (e.g., "are we allowed to climb on the furniture?"); declare that H knows act is forbidden ("you know better than that").

-If S indirectly prohibits H's act or intent by proposing an alternative activity (e.g., "just look"), code NIA:CS.

R: NIA:GI, NIA:AD, RD, CS.

State that H is performing prohibited act, i.e., remind H.

NIA: PM Praise H's/S's motor (nonverbal) performance as correct or good.

-If S explicitly praises the product of H's activity (e.g., "what a nice drawing"), code NIA:ST.

-If S praises H's behaviour as appropriate, approves H's compliance with S's directive, or approves H's appropriate use of given materials, code NIA:AB.

NIA:PR An onomatopoeic sound produced within the context of an ongoing activity (e.g. "bang").

NIA:QN Wh-question about what H wishes to do next; activities not named.

R: NIA:SA.

Non-rhetorical question about whereabouts of object which functions as request for object necessary to activity.

-If question is rhetorical question on whereabouts of object, asked to draw attention to it, code

DHA:QN.

R: NIA:SA.

Wh-questions about details of activity, e.g., its focus, why to engage in it, how to do it, etc.

Questions about why H refuses proposals.

R: NIA:SA.

Wh-question: ask for information about upcoming activity (e.g. how S should do it).

R: NIA:SA.

Wh-questions about request for help, e.g., reasons for request.

R: NIA:SA.

Wh-question about how to perform act, what to do, etc. addressed to H as a hint for his performance of act (e.g., "what do you do first?").

R: NIA:SA.

Wh-questions which demand information about reasons to stop act.

R: NIA:SA.

NIA:RD R to NIA:RP, DR, TD, TO. Refuse to do. Refuse proposals or requests.

-If implicit refusal in the form of counter suggestion$_1$ code CS.

-If S promises to comply later (i.e., refuses to comply at once), code NIA:PD.

R: NIA:GI, RD, CS, NIA:QN

R to NIA:QN, NIA:YQ. Refuse to answer NIA questions.

R: NIA:GI.

R to NIA:PF, OS, TO, Woe Refuse to stop/ insist on doing forbidden act.

R: NIA:GI.

R to NIA:RP$_1$ RQ. Refuse to be helped.

R: NIA:GI.

R to NIA:RQ, TQ. Answer negatively to questions about wishes.

R: NIA:GI, NIA:RD.

NIA:RP Request, propose, suggest action for H or for H and S, including requests of the form "Can you...")

-If "Can you..." question asks purely for information and involves no suggestion of a proposal or directive, code NIA:YQ.

-If S directs H's attention to objects preparatory to negotiating activity on object, code OHA.

-If S requests that H pause in action or wait until resuming action, code NIA:PF.

-If S proposes/suggests action with object by marking transfer of object to H (e.g., "here"), code NIA:TO.

-If S requests M's permission to do or permission to have object, code NIA:FP.

R: NIA:AD, RD, GI, TO, SA, P?, CS.

Request H to come and play (e.g., "come over here so we can play ball").

-If S solicits H's attention or negotiates mutual proximity without simultaneous negotiation of activity (e.g., "come oven here"), code NMA.

R: NIA:AD, RD.

Indirect criticism in the form of a directive (e.g., "you have to be gentler").

NIA:RQ Yes/no question about H's wishes to engage in activity (e.g., "do you want to ...?" or "okay?").

-If S is asking for clarification or confirmation of H's expressed wishes to engage in activity, code DCC:YQ or DCA:YQ.

-If S is requesting/proposing to H in the form of "Can you do x?'), code NIA:RP.

R: NIA:AD, NIA:RD.

Question about H's wishes to help or be helped.

R: NIA:AD, NIA:RD, NIA:TO.

NIA:RT R to NIA:EI. Imitate H's utterance when requested to do so or when H has modelled utterance for imitation.

R: NIA:AP, NIA:DW, NIA:CT.

Imitate H's utterance to acknowledge H, or with no evidence of communicative intent.

-If intent is to approve, disagree with, agree to do, refuse to do, code AP, OW, AD, RD respectively.

NIA:SA R to NIA:QN. Answer wh-questions.

NIA:SI State S's intent to do.

-If S states request/proposal, code NIA:RP.

R: NIA:PA, NIA:PF, NIA:GI.

Narration of S's ongoing activity.

NIA:SS Signal to start: give a signal to H to start performing an action (e.g., go ahead" or "One, two, three!"). Pace performance of acts by hearer.

-If S marks action completion or transition from one activity to another (e.g., "now then"), code NIA:MK.

-If S declares new state of affairs (e.g., "now we're playing peek-a-boo"), code NIA:DC.

NIA:ST State; provide information necessary or helpful for ongoing activity.

-It statement is an indirect request and does not provide information (e.g., "now you need to close the lid"), code NIAR?.

-If utterance functions to bring activity to end rather than mark a fait accompli, code NIA:DC.

-If S does not provide information but simply predicts event (e.g., "something will happen"), code NIA:PD.

-If S requests/proposes activity as well as providing information (e.g., "turn it like this") code NIA:RP.

R: NIA:AP, NIA:DW.

NIA:TD Threaten H in order to get him to start new activity or perform act.

R: NIA:AD, NIA:RD.

Threaten H in order to stop or prevent him from performing activity.

R: NIA:AD, NIA:RD, *CS.*

NIA:TO Mark transfer of object to H (e.g., "here") in order to propose/suggest that H do something with object.

-If S marks transfer of object without expectation that H act on the object code MRK:TO.

R: NIA:AD, NIA:RD.

NIA:TQ Limited alternative yes/no question.

R: NIA:TA.

NIA:WD Warn H of danger or consequences if he performs act in order to stop/prevent act.

R: NIA:AD, NIA:RD, NIA:CS.

NIA:YD R to DC. Agree to H's declaration of new state of affairs.

NIA:YQ Yes/no question: ask for information about ongoing or upcoming activity (e.g., how S should do it).

-If S is asking about H's wishes (e.g., Nyou want to do x?" or "okay?"), code NIA:RQ.

R: NIA:AA, NIA:AN.

Yes/no questions which request information about reasons for performing or not performing act/activity.

R: NIA:AA NIA:AN.

Yes/no question asking for H's evaluation of
H's/S's action (e.g., in this way okay?").

R: NIA:AA, NIA:AN.

Yes/no question asking whether act/activity has been completed to H's satisfaction (e.g., "is this clean enough yet?").

R: NIA:AA, NIA:AN

Yes/no question asking H whether he is finished act/activity (e.g., "are you all done?").

R: NIA:AA, NIA:AW.

Other NCS speech acts:

NCS:AC R to NCS:CL. Answer H's call while S and H are separated by declaratives Iike "yes," H's name, repetition of call.

NCS:CL Call H while separated in order to achieve co-presence.

-If S and H are not physically separated and S is attempting to establish mutual attentiveness or proximity, code NMA:CL.

R: NCS:AQ, NCS:QN, NCS:AD, NCS:RD, NCS:SI, NCS:PD, NCS:RP.

Call H in order to prevent his leaving.

NCS:MX Wish good-night or goodbye upon leaving.

Other NFA speech acts:

NFA:PD Promise to carry out an act in the far future.

Other NFW speech acts:

NFW:DP Declare a fantasy world or create make-believe reality.

R: NFW:YD, N{W:ND.

NFW:ND R to NFW:DP. Refuse to go along with H's fantasy game.

NFW:YD R to NFW:DP. Agree to go along with H's fantasy game.

Other NMA speech acts:

NMA:AC R to NMA:CL. Answer H's call by declaratives like "yes," H's name, or by repetition of call.

-If S and H are physically separated, code NCS:AC.

NMA:CL Call H; call attention to S, in order to start interaction.

-If S and H are physica1ly~ separated, code NCS:CL.

R: NMA:AC, NMA:QN, NMA:AD, NMA:RD.

NMA:QN Attempts to determine what H is attending to, in order to establish joint attention (e.g., "what do you see?")

-If S clearly already knows what H is attending to, code DJF:QN.

NMA:RP Call H to approach S. Request that H come to S in order to start interaction (e.g., "come sit over here").

PRO: PERFORMING VERBAL MOVES IN AN ACTIVITY

Function: To perform verbal moves in a game or engage in other routinized activity.

PRO:EA Elicit onomatopoeic sounds.

R: PRO:PR.

-If onomatopoeic sounds are elicited in the context of a joint focus, code DRP:EA.

PRO:EX Elicit completion of rote-learned text, e.g., poem.

-It completion of word is elicited, code NIA:EC.

-If recitation in full, rather than completion, of rote-learned text is requested (e.g., "say the pledge of allegiance for me"), code NIA:PP.

R: PRO:CX.

PRO:MK To express socially expected sentiments during a politeness routine.

-If socially expected sentiment is an answer to a question than use appropriate responsive code (e.g. "What do you say?" PRO:QN, "Please" PRO:SA)

PRO:PR Use Routine language within a communicative routine such as Peek-a-boo.

-if onomatopoeic sound is produced in the context of an Ongoing activity than code NIA:PR

PSS: NEGOTIATING/DISCUSSING POSSESSION OBJECTS.

Function: To negotiate or discuss the possession of an object.

PSS:AA R to PSS:YQ. Answer affirmatively yes/no questions.

PSS:AN R to PSS;YQ. Negative answer to yes/no questions.

PSS:AP R to PSS:ST. Agree with statement about who is possessor of object.

PSS: CS R to PSS:DC. Counter suggestion about who is the possessor.

PSS:DC Declare a new state of affairs, i.e., that someone is the possessor of an object.

R: PSS:YD~ PSS:TO, PSS:ND, PSS:CS.

PSS: DW R to PSS:ST. Disagree with statements about who is the possessor.

PSS:ND R to PSS:DC. Disagree with declarations or claims.

PSS:QN Wh-question about who is the possessor of an object.

R: PSS:SA.

PSS:SA R to PSS:QN. Answer wh-questions about who is the possessor of object.

PSS:ST Provide information about who is the possessor of object.

-If S declares a new state of affairs regarding possession, code PSS:DC.

PSS:TO R to PSS:DC. Mark handing over of object claimed by H.

PSS:YD R to PSS:DC. Agree to declarations or claims.

PSS:YQ Yes/no question about who is the possessor of an object.

R: PSS:AA, PSS:AN.

SAT: SHOW ATTENTIVENESS.

Function: To demonstrate that speaker is paying attention to hearer.

SAT: XA Show attentiveness to H when H hasn't made any bid for attention, e.g., by "yes" or other contentless utterance.

-If attentiveness is response to H's vocalisation or nonverbal call, code as AC, within the interchange used to code H's utterance.

-If response to nonverbal call for attention takes the form of a question, code DCA.

-If response to utterance or vocalisation is a clarification question, code DCC.

SDS: SELF-DIRECTED SPEECH.

Function: To address oneself with no intent of interacting with hearer.

Note that any number of speech acts may occur within this interchange. To be coded within SDS, there must be clear evidence that the utterance was not directed to the hearer. Thus this interchange should be used conservatively.

TXT: READ WRITTEN TEXT

Function: To read written text aloud.

TXT:TX Read written text aloud.

YYY: UNINTERPRETABLE

Function: Unknown.

YYY:AC R to ***YYY:YY.*** Acknowledge H's uninterruptible utterance.

YYY:RT R to YYY:YY. Repeat H's uninterruptible utterance.

YYY:YY Communicative vocalisation for which function is uninterruptible.