A CROSS-SECTIONAL DESIGN TO TEST WHEN AND IN WHICH ORDER THE ACQUISITION OF MORPHOLOGICALLY COMPLEX VERBAL FORMS OCCUR IN TURKISH

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ABSTRACT: Infants utter their first words when they are ten months and they start to use two or more words after the age of sixteen month. These simple utterances contain at least a noun and a verb that bears the tense suffixes. Acquisition of simple tense suffixes occur during the two-word stage such as the continuous tense marker "-Iyor" in Turkish begin to be used at about 16 months and past tense marker "-dI" is heard at 19 months. This study is a preliminary one that aims to analyze the acquisition of morphologically complex verbal forms. The data is taken from CHILDES data exchange system. After possible forms of three morphologically complex tense forms (-Iyordu, -ImIştI, -AcAktI) are determined, the computerized language analysis (CLAN) and KWAL programs are used for analyzing. We have found out that infants acquire complex tense forms at a time between three and four years (36 and 48 months). Moreover, the acquisition order of them starts with "-Iyordu" (2.0) and continues with "-ImIştI" (2.0) and "-AcAktI"(3.8), respectively.

Key Words: Acquisition of Turkish; tense suffixes; morphological acquisition; morphologically complex verbal forms; complex tenses; verbal stem; tense forms

TÜRKÇE'DE BİÇİMBİRİMSEL KARMAŞIK EYLEM YAPILARININ NE ZAMAN VE HANGİ SIRA İLE EDİNİLDİĞİNİ TESPİT ETMEK İÇİN KESİTSEL BİR ÇALIŞMA

ÖZ: Bebekler, ilk sözcüklerini onuncu ayda üretirken on altıncı aydan itibaren iki veya daha fazla sözcüklü yapıları kullanmaya başlarlar. Bu basit yapılar en az bir isim ve zaman ekleri taşıyan bir eylemden oluşur. Basit zaman eklerinin edinimi iki-kelime döneminde gerçekleşir. Örneğin Türkçe' de şimdiki zaman eki "-Iyor" on altıncı ayda kullanılmaya başlarken geçmiş zaman eki "-dI" 19 aylıkken görülür. Bu çalışmanın amacı Türkçede biçimbirimsel olarak karmaşık eylem yapılarının ne zaman ve hangi sıra ile edinildiğini tespit etmektir. CHILDES veri değişim sistemi kullanılarak zaman eklerinin muhtemel yapıları belirlendikten sonra biçimbirimsel karmaşık eylem yapıları, CLAN ve KWAL programları aracılığıyla incelenmiştir. Çalışma kapsamında üç biçimbirimsel karmaşık zaman eki (-Iyordu, -ImIştI, -AcAktI) incelenmiştir. Sonuç olarak bebeklerin biçimbirimsel karmaşık eylem yapılarını üç ve dört yaş zaman aralığında öğrendiği ve edinim sırasının "-Iyordu" (2.0) ile başlayıp sırasıyla "-ImI[2]ştI" (2.0) ve "-AcAktI" (3.8) ile devam ettiği görülmüştür.[3]

Anahtar Kelimeler: Türkçenin edinimi; zaman ekleri; biçimbirimsel edinim; biçimbirimsel karmaşık eylem yapıları; bileşik zamanlar; eylem gövdesi; zaman yapılar

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1. INTRODUCTION

Infants are surprisingly quick to capture the properties of the language they are exposed to. They start to utter their first words when they are ten months and at around 2 years they start to combine words. Although the first multiword utterances have a telegraphic character, a type of utterance consisting of simple three or more word sentences usually includes at least one noun and verb during the two-word stage of language acquisition in children, they are not a mere simplification of adult language.

The brick and mortar that infants use to combine verbs in agreement with the other words in a sentence are tense suffixes which are among the agreement morphology markers. Acquisition of tense morphology attracts great attention in all of the studies about child language development. As Cole and Cole states, the "-ing", observed 20-22 months, is the first acquired tense marker which occurred during the acquisition process of the infants who are the native speakers of English. They use this tense marker to define continuity (2001:308). Although infants use the past tense marker at about 26 months, it takes a long time to acquire the use of irregular verbs.

When it comes to Turkish, the infants notice the place of suffixes in language at about 15-18 months. They begin to use suffixes with one word and then they combine these words to form sentences. As Ekmekçi states, in Turkish the continuous tense marker "-Iyor" begin to be used at about 16 months. At 21 month they use "-Iyor" to tell enduring actions. However, personal pronouns are not seen at the end of the verbs (1988:83).Though future tense marker "-AcAk" and definite past tense marker "-dI" is heard at 19th month, they are completely emerge at 21 months. If questions that are directed to infants contain future and past tense infants may use them. As for the inferential past tense marker "-mIş", it is stated in Aksu Koç and Slobin (1985:864) study that it emerges shortly after the definite past tense marker "-dı" but both of them aren't discriminated until the age of four. According to Ekmekçi (1988:85), the reason of this may be the infants' having difficulty in understanding the past.

In Turkish within complex tense form structure main clause verb has a position for up to three grammatical function changing suffixes followed by negative suffix, tense, aspect and modality (TAM) markers, a subject agreement marker and another TAM suffix. According to Göksel (2001:153), the tense markers that can occur on the right of the negative suffix are illustrated below (see Figure 1):

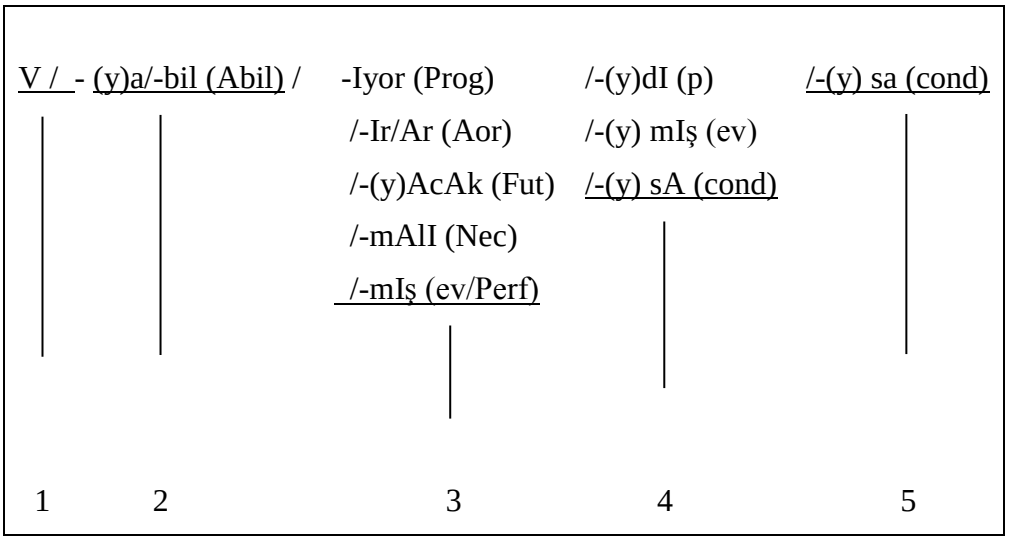


Figure 1: The Structure of a Verb Stem in Turkish

Sezer (2001:4) described the categorization of complex tenses in Turkish as Tense1, Tense2, and Tense3 forms;

a. Tense1 forms

   -Dı definite witnessed past; -se subjunctive conditional; -mIş inferential past/present perfect; -Iyor continuous; -yEcEG future; -Ir/Er aurist; -mElI necessitate

b. Tense2 forms

   i-dI/-(y)dI definite witnessed past; i-sE/-(y)sE indicative conditional; i-mIş/-(y)mIş inferential

c. Tense3 forms

   I-se/-(y)sE indicative conditional;

The above categorization can be easily understood from the following example;

a. Verb stem –Tense1 – Tense2 –Tense3 –Agreement

b. git(d) -EcEk - mIş -sE -m

   go -FUT -INFER.Past -IND.COND -1 sg

   "If it is the case that they say I will/would go…"

Tense1 forms are morph-syntactically simple and Tense2 and Tense3 forms are morph-syntactically complex forms in predictable ways.

To be grammatically well formed, a finite verb must minimally contain a main tense, Tense1 above, and agreement in that order. Although some Tense1 and Tense2 forms are quite similar, they are semantically and syntactically distinct.

Acquisition of tense suffixes in Turkish is not a widely studied topic. Therefore the question of when and in which order the complex tense forms are acquired requires a comprehensive research and this deficiency is the starting point of this study. Besides, the comparison of the acquisition of the Tense1 forms and complex tenses is the other problem that needs clarifying. This study aims to answer the following research questions; when do the infants produce selected complex tenses during their acquisition of Turkish? What is the acquisition order of selected complex tenses? Does the acquisition order of selected complex tenses display similarities with the acquisition order of morpho-syntactically simple tense forms?

Göksel & Kerslake (2005) shows that In Turkish verbs are inflected for voice, negation, tense, aspect, modality, copular and person. Since in Turkish almost all suffixes have more than one form, the initial consonant in some suffixes and the vowels in almost all suffixes depend on the consonants or vowels that precede them. For example, the plural suffix has two forms, -lar (as in çocuk-lar 'children') and -ler (as in bebek-ler 'babies'), with only the vowel alternating between 'a' and 'e', whereas the perfective suffix has eight forms, -dı, -di, -du, -dü, -tı, -ti, -tu, -tü (as in kal-dı 'remained' but düş-tü 'fell'), where both the consonant and the vowel are subject to alternation. Furthermore, Kornfilt (1997) points that suffixes that a verb takes change according to many criteria such as the subjects being plural or singular, the vowel harmony, the question suffix and consonant harmony. This phenomenon in the structure of the verb accelerates the possible forms of tense morphology markers thus it directly enlarges the scope of this study. Since this study is a preliminary one and aims to be at the beginning, we included just the forms of suffixes in Table 1 (see below) and the other forms that shape the morpo-syntactic structure of the inflectional suffixes are excluded.

Therefore in this study the acquisition of some forms of complex tenses are studied. These are Tense1 forms; "-mIş (inferential past/present perfect); -Iyor (continuous); -yEcEG (future)" and their combinations with the Tense2 form "i-dI/-(y)dI (definite witnessed past)". In other words, this study tries to shed light on the acquisition process of selected morphologically complex tense forms and to determine exactly when and in which order these milestones are overcame by infants. Thus the tense forms that will be analyzed can be seen at Figure 2;

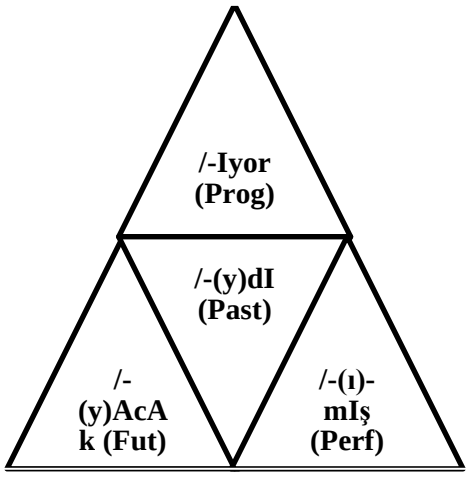


Figure 2: Analyzed Tense Forms

2. METHODOLOGY

2.1.Data Collection Tool

This study is based on a sample taken from Child Language Data Exchange System (CHILDES) database (MacWhinney, B. 2000). This database is Aksu Koç's data which was gathered in 1972 and 1973 in Istanbul, under the direction of Dan I. Slobin, with support from The Grant Foundation. The children were observed at four month age intervals, from 2; 0 to 4; 4. Some of the children were visited a second time, 4 months later, resulting in a full age range of 2;0 to 4;8. The first visit occurred within one week on either side of the day of the month corresponding to the child's birthday. Children were visited in their homes or preschools over the period of a week, during which they were given a battery of cognitive and language tasks, as described in Slobin (1982). Thus it is a cross-sectional data collected during the visit to the children's home or preschool with some follow up four months later.

2.2 Procedure

This study consists of four main parts. In the first part, the possible forms of tense suffixes are determined. In Turkish, the morposyntactic structure of the inflectional suffixes changes according to the person, the subjects being plural or singular, the vowel harmony, the question suffix, consonant harmony and many other criteria (Other forms are excluded). (see Table 1, below).

Table 1: Possible Forms of Tense Suffixes

For the complex tense form "-yordu" :	For the complex tense form "-mişti"	For the complex tense form "–acaktı"
-YORDU-M	- MIŞTI-M	-ACAKTI-M
-YORDU-N	-MIŞTI-N	-ACAKTI-N
-YORDU	- MIŞTI	-ACAKTI
-YORDU-K	-MIŞTI-K	-ACAKTI-K
-YORDU-NUZ	- MIŞTI-NIZ	-ACAKTI-NIZ
-YOR-DU-LAR	-MIŞ-TI-LAR	-ACAKTI-LAR
-YOR-LAR-DI	- MIŞ-LAR-DI	-ACAK-LAR-DI
-YOR-MUY-DU	-MIŞ-MIY-DI	-ACAK-MIY-DI
	Same forms for "-mişti, -muştu, -müştü"	Same forms for "-ecekti"

In the second part, complex tense forms are analyzed with the Computerized Language Analysis (CLAN) program which is designed specifically to analyze data transcribed in the format of the Child Language Data Exchange System (CHILDES). For each tense marker and its possible forms' frequency analysis is done across the whole data. A frequency word count is the calculation of the number of times a word, as delimited by a punctuation set, occurs in a file or set of files. FREQ produces a list of all the words used in the file, along with their frequency counts (MacWhinney, B. 2000). For example for "-yordu", the frequency analysis is done and the results are saved to another folder.

In the third part, the words which contain inflectional suffixes across the whole data are examined with the help of Key Word Analysis (KWAL) program. The KWAL analysis outputs utterances that match certain user-specified search words (MacWhinney, B. 2000). The program also allows the user to view the context in which any given keyword is used. Thanks to the KWAL analysis the collocations of words are examined in order to detect repetitions of the child using a tense form of the adult speaker. In this study the repetitions are determined in order to examine the creative uses of language. In the final part, infant's use of markers and the problem of at which point this markers are acquired are analyzed.

2.3 Limitations

In this study other varieties that shape the morposyntactic structure of the inflectional suffixes apart from the person, the subjects being plural or

singular, the vowel harmony, the question suffix and consonant harmony are excluded. By doing this we limited our study ıf these varieties are included the results may change. Another limitation is that we only concerned with three complex tense forms because we have to limit the outcomes. And the other limitation is about data's being cross-sectional it limited the outcomes.

3. ANALYSIS

Since there are three complex tense forms to analyze (-yordI, -mIştI, -AcAktI), this section has three parts.

3.1 Progressive Past

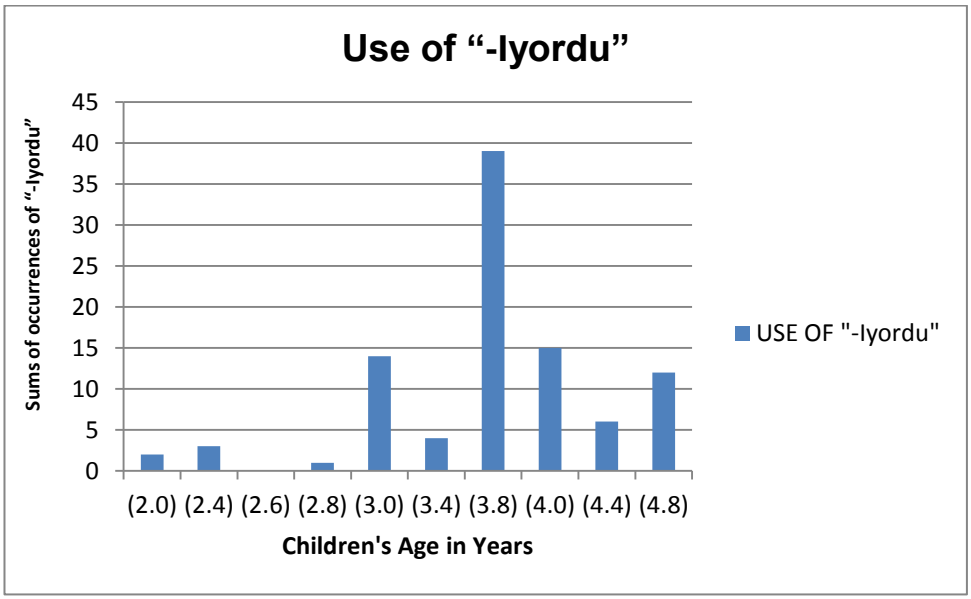
Accordin to Kornfilt (1997), the progressive expresses an event or action that takes place at a given point in time, delimited very narrowly to that temporal point. Here that temporal point is in the past:

Dün	saat	beş	-te	Hasan	kahve	Iç	–Iyor	-du
Yesterday	o'clock	five	Abl	Hasan	coffee	drink	–Prog.	-Past

"Yesterday at five o'clock Hasan was drinking coffee"

The table 2 shows the usage of progressive past tense marker and its possible forms across the 33 infants' crosssectional data.

Table 2: Use of "-Iyordu"



In age period (2.0), two usage of "gidiyorduk" are noticed and nothing is found in the other data which are at the same age. At the age of (2.4) just one example is noticed (oynuyordu) after the expert's question

"oynuyormuydu?" and at (2.4) two usage of "yiyordu" are the important elements.

No creative usage is observed at (2.6) and at (2.8), after expert's "ne oldu?" question, the answer is "burnum ağrıyordu"; at (3.0) "ayıklıyordu" and other ten usages shaped according to plurality and person markers (gidiyorlardı, geliyorduk, oynuyorduk). The important point which needs mentioning is that there is a perfect usage of prog. past marker telling a continuous action in the past ("Benim gece karnım ağrıyordu."). In the age of (3.4), there are four usages from Levent.

The most fruitful data comes from the age of (3.8); it includes four usages: three "duruyordu" and one "akıyordu". Elif has six usages ranging from "söylüyorlardı" to "yüzüyordum". Engin has one and Reyhan has two usages. A great many examples are seen in the data of Mehmet, there are twenty-seven usages and he uses all forms such as "kaçıyorlardı", "göremiyorlardı", "gebertiyordum", "kaçırıyorlardı" and none of them are repetition.

In age of (4.0), an interesting point encountered is that most of the suffixes are shaped according to the first person singular. In the age of (4.4) there were many usages of progressive past tense

In conclusion, the progressive past marker "-yordu" is first seen at the age of (2.0) but not for all thirty three children and the usage is limited. The peak for "-yordu" is (3.8) and from that time the usage is at medium level. Therefore according to acquisition criteria we used, we infer that it is acquired at a time between 36 and 44 months.

3.2. Future Past

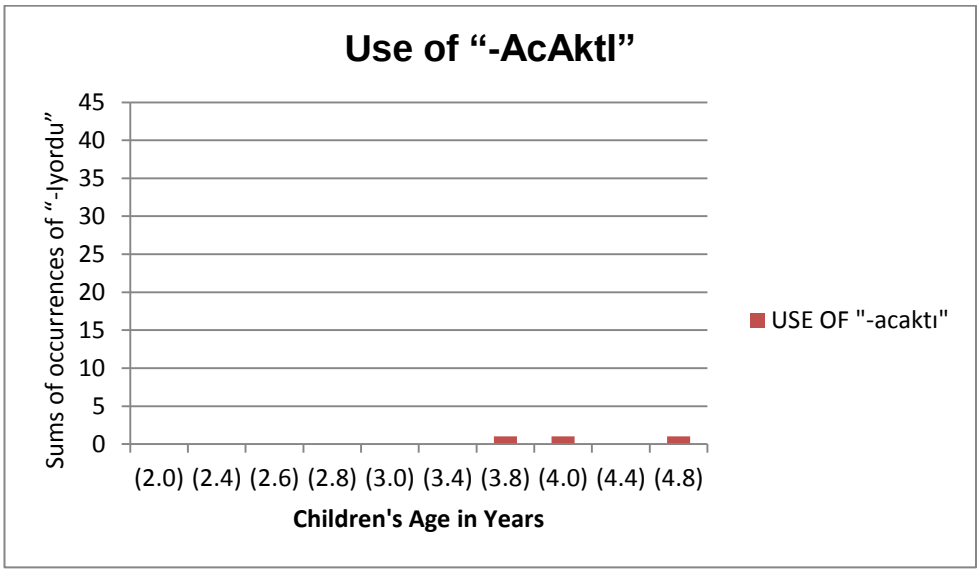
As for the future past tense Kornfilt (1997) states that the future tense marker expresses a time reference which lies in the future with respect to a point in time in the past.

Hasan	ödev	-in	-i	dün	bitir	-ecek	-ti
Hasan	assignment	-3.sg.	–Acc	yesterday	finish	–Fut.	–Past.

"Hasan was going to finish his assignment yesterday."

The table 3 shows the usage of future past tense marker and its possible forms across the 33 infants' data;

Table 3: Use of "-AcAktI"



Until the age of (3.8), there aren't any use of "-acakti" and after that period the use is limited to three infant; they are (3.8), "hani bitecekti"; (4.0), "zebrayı ez -ecekti araba", and (4.8), "kış olsun anneannem bizi hayvanat bahçesine götür- ecekti". However, in the child directed speech there are many usages of "-ecekti/-acaktı". To sum up, the future past marker "-acaktı" is first seen at the age of (3.8). It is an interesting point because until that time no uses of "-acaktı" is determined. Then after (3.8) the production rate is 1.0 that means it is encountered at least one time in the speech of children. Therefore, the future past tense marker "-acaktı" is acquired between 44 and 48 months.

3.3. Reported Past

As for the reported past tense it assumes the function of a perfective aspect marker corresponding to the "pluperfect" (past perfect) in English. Thus, as Kornfilt (1997) states, with respect to a point in the past (here, yesterday at five o'clock), the action depicted (here, Hasan's drinking his coffee) has been completed.

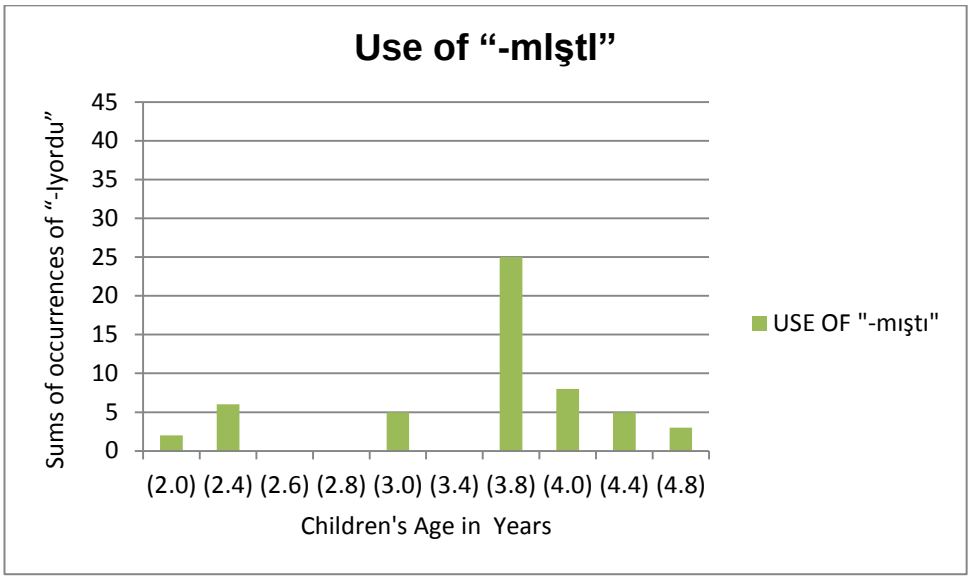
Dün saat beş -te Hasan kahve- sin -i bitir -miş -ti

Yesterday o'clock five –Abl Hasan coffee -3.s.g. –Acc. finish –Ppart -Past

"Yesterday at five o'clock Hasan had finished his coffee"

The table 4 shows the usage of reported past tense marker and its possible forms across the 33 infants' data;

Table 4: Use of "-mIştI"



In the age of (2.0) one usage is encountered and in (2.4) six usages are determined. There are some complex productions such as "götür-müş-ler-di". There are not any examples from (2.6), (2.8) and (3.4) because the corpus does not include much infant from those ages. Moreover, at the age of (3.0), there are five productions.

As for (3.8), there are fourteen usages of reported past marker from various children. At (4.0) there are five usages but inside of them one example strikes attention;

Expert: Ben senin topun var zannediyordum.

Child: She says "ha bir tane varmıştı

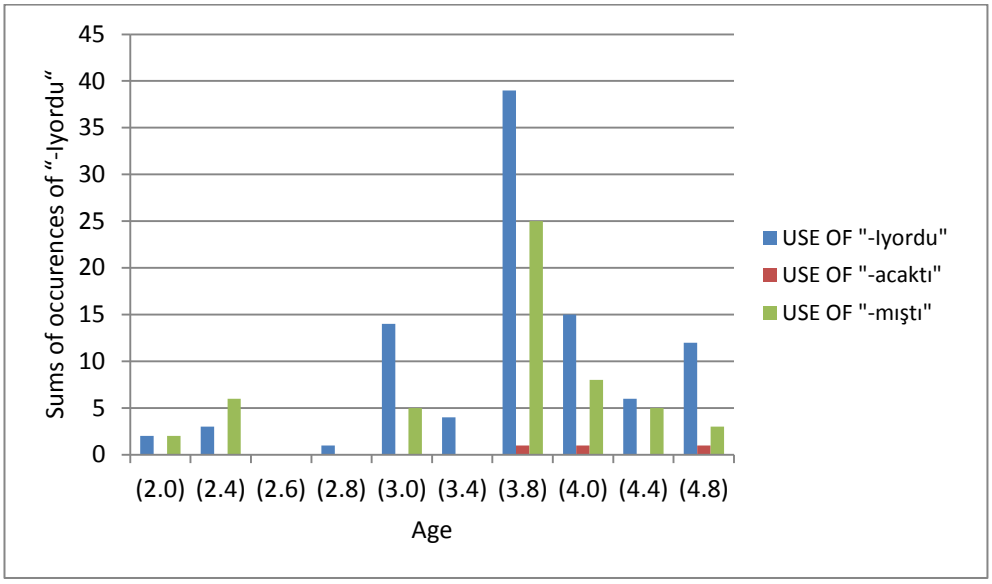
However, this kind of production is not a true example of reported past tense. In the age of (4.4) and (4.8), there are five and three usages, respectively.

Finally the reported past tense marker is first seen between 24 and 28 months, however, creative usage is observed after 40 months. Hence, it is inferred that reported past tense marker is acquired at a time between 40 and 44 months during the acquisition process of Turkish language.

4. DISCUSSION & CONCLUSION

In this study the acquisition criterion is based on the infant's medium level production of a complex tense marker. That is when a child first produce the tense marker he/she is accepted to acquire it. As can be seen from Table 5, the infant's uses of utterances which contain complex tense markers vary from child to child.

Table 5: Use of Selected Three Complex Tense Forms



The progressive past tense marker "Iyordu" is the first complex tense marker of which production is seen at about (2.0). After (3.0) it is frequently used across most of children's data and (3.8) is the time in which the most frequent usage is occurred. The reasons behind these findings can be explained according to two factors: One of them is the acquisition order of Tense1 forms. Since in Turkish the continuous tense marker "-Iyor" begin to be used at about 16 months and the definite past tense marker "-dı" is used at 19 month therefore these processes must have triggered the acquisition of "-Iyordu". Until (2.0) an infant would hear and produce the two Tense1 markers enough in order to produce future past tense marker. The other reason is infants understanding of the time of speak. According to Ekmekçi, infants have a difficulty in understanding the past and future but on the contrary it is a known fact that the infant can abstract the meaning of a noun and verb from the word order and context of the sentence. Thus their not having any difficulty in understanding the time of speak is the second reason behind the acquisition of "Iyordu".

The future past tense marker "AcAktI" is first seen at the age of (3.8) but the production is limited to a few children's data and after that time any creative usage is not observed. Moreover the production of "-AcAktI" in the child directed speech gives us such an important point of view that the children do not know the function of "-acaktı" when they produced it; and they do not understand the question of expert (e.g. "Kız olsaydı ne oynayacaktı?"). In addition when speaking with child, expert or mother uses future past tense marker and while the infants use other complex tense markers, he could not use "-acaktı". For example, in Piraye (4.8):

Expert: Dün bana gelmedin neredeydin dün?

Child: Dün sen gelecen (=gelecektin)

It is extracted from the above example that the infant did not acquire the future past marker since she could not produce it. Two factors are observed concerning the acquisition of "-AcAktI". First one is the acquisition order of Tense1 forms as does in the "-Iyordu". In Turkish future tense marker "-AcAktI" and definite past tense marker "-dI" is heard approximately at the same time; that is 19 month. Because the infant cannot differentiate the uses of these two markers until (5.0) s/he cannot produce the future past tense marker "-AcAktI". Secondly, the other factor is relevant with their having difficulty in understanding future since they always use the time adverb of the future tense "yarın" wrongly. In conclusion the production of "-AcAktI" is limited across whole data.

The reported past tense marker "-mIştI" is first seen at the age of (2.0) and after (3.8) it is produced frequently thus the peak is (3.8). In Turkish "-ImIş" is the last tense marker which is acquired at (1.8). From the usages of reported past tense marker it is inferred that infants' having difficulty in understanding the past is not effective as does in the two complex tense forms. The reason behind this, according to Sezer, is "-mIştI" doesn't mean inferential or quotative past, but only present perfect.

Another surprising point of this study is that the productive usages of all complex tense forms do not represent any kind of repetition of adult speech. Repetitions are among the basics of learning period but the infants who are at the beginning period of learning complex tense forms do not use repetitions as a learning mechanism.

Finally, what can be said about the acquisition order of complex tense forms is that infants firstly acquire the use of progressive past tense (-Iyordu). There are two reasons behind this phenomenon. The production of progressive past across the whole data is the most challenging one and the data shows that it is acquired at very early ages. Then infants acquire the use

of reported past tense (past perfect tense in English) (-mIştI) and future past tense (-AcAktI) respectively. It is stated above that In Turkish the continuous tense marker "-Iyor" begin to be used at about 16 months, future tense marker "-acak, -ecek" and definite past tense marker "-dı" is heard at 19 month and inferential past tense marker "-mIş" emerge shortly after definite past tense marker "-dı". Simple forms and complex forms of tense markers' acquisition bear some similarities but differ in some points such as the acquisition of "-AcAktI". Maybe the reason of this is the definitive past tense marker "-dı" because the infants have difficulty in understanding the past.

In conclusion, this study aimed to draw attention to the acquisition of complex tense forms, at which point in the life cycle the infants acquire and produce them, in what order are they acquired, do they bear similarities with the acquisition order of Tense1 forms and finally are they repetitions of child directed-speech. And it is concluded from this study that infants acquire complex tense forms at a time between three and four years (36 and 48 months). However, by that time the acquisition process is not finished yet. Moreover, the acquisition starts with "-Iyordu" (2.0) and continues with "-mIştI" (2.0) and "-AcAktI" (3.8), respectively. The infants' uses of complex tenses bear some similarities with the acquisition of Tense1 forms and do not represent any kind of repetition.

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Genişletilmiş Özet

Herhangi bir dünya dilini edinmeye hazır bir mekanizma ile doğan bebekler ilk sözcüklerini onuncu ayda üretmeye başlarlar. Bu ilk sözcükler tek-kelime döneminin başlangıcı olarak kabul edilirken bebekler on altıncı aydan itibaren iki-kelime dönemine geçiş yaparlar. Bu dönemde bebekler iki veya daha fazla sözcüklü yapıları kullanmaya başlarlar. Bu basit yapılar en az bir isim ve zaman ekleri taşıyan bir eylemden oluşur. Basit zaman eklerinin edinimi iki-kelime döneminde gerçekleşir. Örneğin Türkçe' de şimdiki zaman eki "-Iyor" on altıncı ayda kullanılmaya başlanırken geçmiş zaman eki "-dI" 19 aylıkken görülür. Bu çalışmanın amacı Türkçe'de biçimbirimsel olarak karmaşık eylem yapılarının ne zaman ve hangi sıra ile edinildiğini tespit etmektir.

Metod

Bu çalışma, CHILDES veri tabanında bulunan Aksu-Koç verilerine dayanır. Veriler Türkçe'yi anadil olarak edinen 33 bebeğin, iki yaşından yaklaşık beş yaşına kadar her dört ayda bir evinde yapılan çekimler sonucunda elde edilen videolardan oluşmaktadır. Daha sonra bu videolar yazıya aktarılıp chat. formatında kaydedilmiştir. Türkçe'de çekim eklerinin biçimbirimsel yapısı kişi eklerine, tekillik veya çoğulluk durumuna ve daha birçok etkene göre değişiklik göstermektedir. Çalışmada bu etkenlerden bazıları seçilip bu yapıların karmaşık zaman yapılarına göre çekimleri incelenmiştir.

İncelenecek karmaşık zaman eklerinin (-Iyordu, -Imıştı, -Acaktı), bilgisayarla işlenmiş dil analiz programı (CLAN) yardımıyla veri kümesindeki frekansı ve bağlamdaki konumu incelenmiştir.

Analiz

Bu bölümde incelenecek zaman ekleri kesitsel olarak analiz edilmiş ve bu eklerin gelişimsel olarak yaş grafiği çıkarılmıştır. "-Iyordu" ekinin Türkçe'yi edinen bebeklerde yirmi dördüncü aydan itibaren görüldüğü fakat kullanımının sınırlı olduğu gözlemlenmiştir. "-Acaktı" ekinin bebekler tarafından kırk dördüncü aydan itibaren kullanıldığı fakat bu kullanımların yaratıcı olmayıp anne ve babayı tekrar niteliğinde olduğu gözlemlenmiştir. "-Imıştı" eki ise yirmi altıncı aydan itibaren gözlemlenmesine rağmen yaratıcı kullanımlarının kırkıncı aydan sonra ortaya çıktığı görülmüştür.

Tartışma ve Sonuç

Bu çalışmada; edinim kriteri, bebeklerin bahsi geçen karmaşık zaman eklerini yaratıcı olarak kullanmaya başlamasıdır. Karmaşık zaman eklerinin ediniminin basit zaman ekleri ile benzerlik gösterdiği gözlemlenmiştir. Ayrıca bebeklerin geçmişi ve geleceği anlamadaki zorluklarının, karmaşık zaman eklerinin edinimini geciktirmiş olabileceği değerlendirilmektedir. Sonuç olarak, bebeklerin biçimbirimsel olarak karmaşık eylem yapılarını üç-dört yaş zaman aralığında edindiği, edinim sırasının ise "-Iyordu" (2.0) eki ile başlayıp sırasıyla "-ImIştI" (2.0) ve "-AcAktI" (3.8) ekleri ile devam ettiği görülmüştür.