THE ACQUISITION OF MORPHOSYNTAX IN CHILD L2 ENGLISH

EVIDENCE FROM TURKISH LEARNERS

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Vasfiye Geçkin

Boğaziçi University

2 0 0 6

Thesis of Vasfiye Geçkin

is approved by

Assist. Prof. Belma Haznedar

(Committee Chairperson)

Assist. Prof. Ayşe Gürel

Assist. Prof. Yasemin Bayyurt

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ABSTRACT

Acquisition of Morphosyntax in Child L2 English:

Evidence from Turkish Learners

by

Vasfiye Geçkin

This thesis investigates the early development of English as a second language (L2) by three Turkish children over a period of seven months, focusing on the availability of the functional categories both within the nominal and the verbal domain.

The sample consisted of three Turkish children, aged 4; 11, 4; 6 and 4; 7, acquiring English as an L2 at an international school in Istanbul, Turkey. Data obtained were analyzed on the basis of inflectional morphology and determiner phrase within the generative perspective. The utterances of the subjects were audiotaped on average at least three times a month and they were accompanied by the detailed notes of the investigator. The data were transcribed, and analyzed according to the morphosyntactic coding conventions utilized in the CHILDES coding system.

The results of the analyses showed that both verbal and nominal functional categories are fully available and there is no optional infinitive stage. Moreover, what determines the optionality of verbal inflection is not the lack of underlying syntactic structure but rather missing surface inflections.

Specifically within the determiner phrase the learners' errors in the use of English articles (*a* (*n*)/*the*) and possessives, child learners manifest errors of omission rather than errors of substitution. In addition, they mark "*the*" better than "*a*". Finally, the learners in this study do not fluctuate in their choice of articles; rather it appears to be a prosodic problem. Overall, our data support the Prosodic Constraints and the Missing Surface Inflection Hypotheses in the L2 acquisition literature.

KISA ÖZET

İngilizce biçim ve yapı bilgisinin ana dili Türkçe olan çocuklar tarafından edinimi

Vasfiye Geçkin

Bu çalışmada İngilizce'yi ikinci dil olarak edinen üç Türk çocuğun yedi aylık dil edinim sürecinin incelenmesi amaçlanmıştır. Çalışmanın odak noktası hem isimsel hem de fiilimsi yapılarda işlevsel yapıların var olup olmadığıdır.

Denekler 4 yaş 11 ay, 4 yaş 6 ay ve 4 yaş 7 aylık İstanbul'daki uluslararası bir okulda İngilizce'yi ikinci dil olarak edinen üç Türk çocuktan oluşmaktadır. Uzun süreli veri toplama yöntemi ile elde edilen veriler, üretimsel dilbilim modeli temel alınarak analiz edilmiştir. Özellikle fiil morfolojisinin ve belirtme tümcelerinin ediniminin araştırıldığı çalışmada elde edilen veriler, üretimsel dilbilim modeli esas alınarak analiz edilmiştir. Veri, ayda ortalama üç kez olmak üzere ses kayıtları ve araştırmacının ayrıntılı notları şeklinde düzenli olarak toplanmıştır. Deneklerin söyledikleri kasetlere kaydedilmiştir, buna ek olarak araştırmacının notları da kullanılmıştır. Veri çözümleme ve analizi, CHILDES programında yer alan kodlama sistemine göre yapılmıştır.

Çalışmada elde edilen veriler, ana dili Türkçe olup, İngilizce'yi ikinci dil olarak edinen çocukların dilinde, gerek isimsel gerekse fiilimsi yapıların dolayısı ile işlevsel kategorilerin bulunduğunu göstermektedir. Ayrıca çocukların literatürde son yıllarda tartışılagelen 'tercihli mastar kullanımı' gibi bir süreçten geçmedikleri görülmüş olup, fiil çekim eklerindeki sorunların yüzeysel biçimbilimsel sorunlar olduğu görülmüştür.

İsim eklerine bakıldığında ise, özellikle belirtme tümcelerinde, çocukların İngilizce iyelik ekleri ile tanımlık kullanımındaki (*a*(*n*)/*the*) yanlışlarının sistematik olmadığı ve eklerin birbiri yerine kullanılmaktan çok düşürüldüğü görülmüştür. Bu

sonuçlar, İngilizce'yi ikinci dil olarak öğrenen Türk çocukların isimsi ekleri ve belirteçleri kullanmada, prosodik bir problemle karşı karşıya olduklarını göstermektedir.

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ABBREVIATIONS

ACC	Accusative
AGRP	Agreement Phrase
AGR(O)P	Agreement (Object) Phrase
AGR(S) P	Agreement (Subject) Phrase
AGR/st	Strong agreement features
AGR/we	Weak agreement features
AP	Adjectival Phrase
ART	Articled Languages
ATOM	Agreement / Tense Omission Model
AUX	Auxiliary
CP	Complemetizer Phrase
DM	Distributed Morphology
DO	Direct Object
DP	Determiner Phrase
FP	Finite Phrase
FT	The Fluctuation Hypothesis
Ft	Foot
GCP	Government Category Parameter
GEN	Genitive
HK	Hearer Knowledge
INFL	Inflectional Projection
IO	Indirect Object
IP	Inflectional Phrase
IP	Intonational Phrase

L1	First Language
L2	Second Language
MPOSS	Missing Possessive
MSIH	The Missing Surface Inflection Hypothesis
N	Noun
NEGP	Negated Phrase
NP	Noun Phrase
NUM	Number
NUMP	Number Phrase
OI	Optional Infinitive Stage
PL	Plural
POSS	Possessive
PP	Phonological Phrase
PRES	Present
PRO	Pronoun
PROG	Progressive
PTH	The Prosodic Transfer Hypothesis
PW	Phonological Word
Q	Question marker
SG	Singular
SOV	Subject object verb
SR	Speaker Reference
SPEC	Specifier
SUB	Subject
SVO	Subject verb object

TNS	Tense
TP	Tense Phrase
UG	Universal Grammar
UTT	Phonological Utterance
V	Verb
V2	Verb second
VFH	Valueless Features Hypothesis
VP	Verb Phrase
3SG *–s*	Subject verb agreement marker-third singular'*s'*
1	First person
2	Second person
3	Third person
*	Ungrammatical construction

CHAPTER 1

INTRODUCTION

This thesis consists of five chapters. In the first chapter, the outline of the thesis is presented. In the second chapter, the functional categories in first language acquisition (L1) and second language acquisition of English (L2) are discussed. In Chapter Three, the morphosyntatic properties of Turkish and English within the scope of our investigation are presented. In Chapter Four, the methodology of the study is dicussed and in Chapter Five, the thesis is concluded with a discussion of the findings and their implications for further studies. This introductory chapter aims to provide a brief background on theories of first and second language acquisition.

Developments in language pedagogy in the 1950s and 1960s are based on structuralism derived from the general learning theory of behaviourism. Behaviourism holds that the learning of any kind of behaviour is based on the notions of stimulus and response. To this end, language learning is also seen as the formation of habits. It is assumed that through repeated reinforcement and extensive practice, language learning will occur. Following this line of thinking, the notion of contrastive analysis gains weight in the 1950s since the underlying theory predicts that languages similar in structure are asier to learn.

With the influence of pioneering work by Slobin (1970) and Brown (1973) on the acquisition of early child grammars, a consensus has formed among researchers stating that children go through similar stages, use similar constructions, in order to express similar meanings, and make similar kinds of errors. Brown's morpheme studies in L1 English has had a considerable impact on L2 acquisition research (e.g. Dulay and Burt, 1974). Since then, error analysis, the systematic investigation of second language learners' errors, has gained importance.

When the studies of that time are reviewed regarding the proportion of errors, it is seen that the majority of the errors made by second language learners do not come from their first language. The term interlanguage is coined by Selinker (1972) to refer to the language produced by learners, both as a system which can be described at any one point in time resulting from systematic rules, and as the series of interlocking systems that characterise learner progression.

Starting with Vygotsky (1962) sociocultural perspectives gains impetus. Language is seen as a tool relating the world of objects to the world of mental behaviour. The child is seen as an entity that needs support, in other words, the child is seen as an individual that needs scaffolding by peers or parents to take the control of her individual consciousness. *Private speech,* children talking to and for themselves is viewed as evidence of the child's growing ability to regulate her speech. When private speech becomes *inner speech,* the child uses the language to regulate inner thought. However, sociocultural theories do not offer a detailed view of the nature of language as a formal system (Mitchell and Myles, 1998). It is not among the interests of sociocultural researchers to study the relative importance of the grammar and the language system. In other words, they are not interested in whether language learning is a rule-governed system or a combination of chunks and routines.

Cognitive approaches to second language learning, on the other hand, derive their hypotheses from the field of cognitive psychology, emphasising the importance of first understanding how the human brain processes and learns new information. According to this perspective, learning a language is viewed as learning any other cognitive skill. This view contrasts with linguistic approaches, according to which human beings are assumed to be endowed with a language-specific module. The scope of cognitivists is limited to how the human brain processes and learns the

human language (Mitchell and Myles, 1998). Under the cognitivist approach the Perceptual Saliency Approach, the Connectionist View and the Information Processing Approach will be discussed briefly.

In the Perceptual Saliency Approach, Slobin (1970) argues that 'certain linguistic forms are more "salient" or "accessible" to the child than others. For instance, Slobin tries to explain the early acquisition of verbal morphology in Turkish-type languages using an argument stating that children pay attention to the end of words as word-finals are perceptually salient. He also proposes that there are operating principles and universal principles resulting from these involved in the language making capacity of the child. Whenever the child encounters some linguistic strings s/he makes use of these operating principles, which show similarity across languages. Slobin's ideas are adapted to second language learning by Andersen (1984). Andersen and Shirai (1994) state that the acquisition of tense and aspect can be explained best by three principles: The Relevance Principle (which guides learners to look for morphological marking relevant to the meaning of the verb), the Congruence Principle (which guides learners to associate verb morphology with verb types most congruent with the aspectual meaning of the verb inflection) and the One-to-One Principle (which causes learners to expect each newly discovered form to have one and only one meaning, function and distribution).

As for the connectionist views, the human brain is likened to a computer consisting of neural networks, and language learning as any other kind of learning is based on associative processes and the strengthening of these processes by repeated activation. They simply view language acquisition as a rule-like behaviour, which does not improve rule-governed behaviour. As has been pointed out by various researchers, one important limitation of the connectionist model is that it heavily

relies on controlled laboratory research and thus involves experiments with artificial languages or fragments of languages (e.g. Hulstijn, 1997; Ellis and Schmidt, 1997).

Information processing models emphasize automatization and restructuring as two important components of learning a cognitive skill, hence, learning a second language as a complex cognitive skill. Automatization occurs when sequences are stored in the long-term memory after going through a number of repeated activation. In addition, this movement from more controlled to automatic processing results in the restructuring of the linguistic system of the learner (MacLaughlin, 1990).

What the functional pragmatic researchers basically focus on is the discourse of the utterance that the child or the learner produces. Unless the functions in addition to the development of formal grammatical systems are paid attention to, the meaning will never be conveyed to the other person. Thus, in this view, formal syntactic categories are based on semantic information. One significant limitation of the functional perspectives is their focus on the early stages of development; they do not give an adequate explanation for the later stages of the acquisition of more complex syntactic structures (Mitchell and Miles, 1998).

With the pioneering work of Labov starting in the 1970s, the focus of research shifts to variability in second language use. It is found that variability in learners' L2 production widely depends on variation according to linguistic context, psychological processing, features of social context, and language function. This approach only focuses on the surface variability. Thus, discussing the acquisition process is out of their concern, so it cannot go further than to give a good deal of description of variable use of certain forms (Gregg, 1990).

The Interactionist Theory supports the idea that language learning takes place when children are involved in a structured environment of which they can make

some sense. Hence, the supporters of this view argue that a multi-dimensional model of language acquisition is necessary.

The logical problem of first language acquisition is discussed as a mismatch between the input that children receive and the output that they produce (Chomsky 1981; 1986a, b). The logical problem of second and foreign language learning is defined as the gap between available experience and attained competence (White, 1989; 2003b). Providing children with negative feedback cannot explain how children acquire the complex system of rules of languages, since we do not know whether the child makes use of the feedback, when and to what extent. Children do not appear to make certain errors, which are logically possible. The question of "logical problem of language acquisition" seems to be far from to be solved. So further research, as it seems, should be conducted to give some plausible account for how children manage to acquire a full system of language even though they are not explicitly told the rules of grammar and have not been given negative evidence and corrections. We will return to this issue in the next section.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction:

After the dominating school of Behaviourism, which dictates learning as the formation of new habits, in the 1950s, cognitivist theories gain weight as a reaction to Behaviourism emphasising especially contrastive analysis between different languages, the Operating Principles of Slobin (1970) on one hand and the Language Acquisition Device of Chomsky on the other. Chomsky (1972) proposes a language acquisition device, with which every individual is endowed. He argues that this innate language learning capacity guides individuals to find their way according to the input they receive in the culture in which they live. Depending on the linguistic properties of languages, he comes up with universal principles and parameters that are considered to be parts of the Universal Grammar (henceforth UG) (e.g. Chomsky, 1981; 1986a, b).

The major research question within the generative framework has dealt with the logical problem of language acquisition, concerned with how children construct grammar despite the poverty of the input that they receive. Starting with the 1970s, a series of longitudinal studies focus on the development of morphology to gain the morphological order of acquisition of English (e.g. Brown, 1973; Dulay and Burt, 1974). In recent years, the debate on the acquisition of both first and second language focus in particular on the presence or absence of the functional categories, such as IP, CP and DP (e.g. Hyams, 1986; 1992, 1996; Pierce, 1992; Poeppel and Wexler, 1993; Eubank, 1993/94; Gavruseva and Lardiere, 1996; Grondin, 1992; Grondin and White, 1996; Haznedar, 2001, 2003; Lakshmanan, 1993/94, Lakshmanan and

Selinker, 1994; Schwartz and Sprouse, 1994, 1996; Vainikka and Young-Scholten, 1994, 1996a,b; White, 1996).

The current study deals with the acquisition of elements associated with IP and DP as functional categories. First, we will discuss various approaches regarding the acquisition of functional categories in L1 English.

2.1. Theoretical Background of the Study

2.1.1. Functional Categories in L1

It is a well-known fact that early child language differs in production when compared to mature adult language. A number of researchers (e.g. Radford, 1990; Vainikka, 1993/1994, among many others) try to express some accounts of this aspect in first language development based on three different views which are the Weak Continuity, the Strong Continuity and the Truncation Hypotheses. Regarding the presence and absence of the functional categories INFL (inflectional projection), CP (complementizer phrase), and DP (determiner phrase) in first language acquisition three positions are identified under the generative approach:

2.1.1.1. Maturational Accounts of Language Acquisition

Radford (1990) argues that child language and adult language differ in terms of underlying syntactic mechanisms, since they are different for both. What he argues is that very early child language development starts with lexical categories. Thus, the child language possesses only the lexical bare head VP as shown in the following tree:

1.

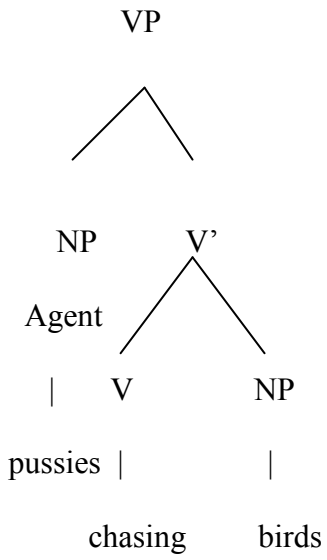

Figure 2.1 The tree structure of lexical bare head VP

(Radford, 1990: 45)

Although thematic items belong to lexical categories, non-thematic items belong to functional categories. In child language development, children first start off with lexical categories, but functional systems such as DP, CP or IP systems are absent. For Radford, children can successfully make use of lexical categories, but functional categories are missing in the child grammar.

Since children cannot overtly produce functional elements such as tense or agreement markers associated with functional categories, it is typical to observe sentences as in the following with missing functional inflections. That is to say, in place of inflectional and determiner phrases children use their lexical counterparts VP and NP, respectively. See the following:

2.

(a) [VP [NP Birdie] [V' [V flying]]

(Radford,1990: 160)

Radford further claims that gerunds, base forms and participles do not carry tense or agreement, thus, children will insist on responding to questions with overtly marked tense and agreement with a sentence containing tenseless verbs as in the following:

3.

(a) Adult: What did you draw?

Child: Hayley *draw* boat. (Hayley, 20)

(b) Adult: What does Ashley do?

Child: Ashley *do* pee. (Jem 23)

(Radford, 1990: 149)

In addition, Radford (1990) claims that the utterances that require adults to produce a DP are wholly or partially imitated by children. However, imitation cannot be taken as evidence for the productive use of functional categories related to either the DP or the INFL.

He extends his prediction about the absence of the DP structure onto the possessor nominals where children will not be able to attach the genitive'*s* suffix.

Consider the following examples:

4.

(a) Betty [car] (Betty,18)

(b) Kimmy [bike] (Kendall, 23)

(Radford, 1990: 88)

He continues his argument on the absence of a case marking system in early child English. On his account, since the child small clauses lack DP, then one would expect that they have not acquired the morphosyntax of case marking. He argues that if there is no IP system in child language, then the utterances will be tenseless and agreementless, which means that the children will not differentiate between subject and object pronouns. Thus, children will use objective pronouns rather than nominative pronouns in the subject position as shown in (5):

5.

(a) Me got bean. (Stefan,17)

(b) Him swimming. (Bethan,21)

(c) Her gone in there. (Angharad,22)

(Radford, 1990: 176)

As an explanation of the functional categories being absent in early child language, he proposes that they are hard to learn since especially their irregularity is insalient (Slobin, 1983) and they are structurally more complex to acquire. Once the child is developmentally and cognitively mature enough, functional categories will suddenly and fully take place in the child grammar after the age 2;7. At that stage the relevant principles of Universal Grammar come into operation.

For Radford, since the lexical elements associated with functional projections are not overtly present in the utterances of children, he simply claims that functional projections are absent at the very early production data of the first language. Radford has been criticized widely simply because his analyses are based only on data from L1 English. Evidence from other languages such as Italian provides counter evidence for his position on the acquisition of functional categories (e.g. Hyams, 1992).

2.1.1.2. The Weak Continuity Hypothesis/ Structure Building Approach

The Weak Continuity Hypothesis holds an intermediate position between Radford's Discontinuity Approach and the Strong Continuity Hypothesis. It is based on the view that the L1 acquisition of child grammars initially projects lexical categories, whereas functional categories develop gradually from the VP to the IP and to the CP where the presence of higher projections in a syntactic phrase entails the prior acquisition of all the lower ones (Clahsen, Penke and Parodi, 1993/1994; Vainikka, 1993/1994; Clahsen, Eisenbeiss and Vainikka, 1994). Vainikka (1993/1994) claims that through input acting as a trigger, syntactically upper phrase functional projections develop gradually, unlike Radford (1990), who argues that phrase structure is built on maturational development that results in the sudden appearance of functional projections.

Vainikka (1993/1994) describes stages of development based on phrase structure trees, emphasising the availability of a previous structure necessary to build the next structure. Thus, this approach predicts a gradual development of stages triggering the spell-outs of non-nominative (oblique) subjects, in addition to replacing the infinitive-like clauses under bare VPs. That is to say, INFL is considered to be present when INFL-related elements, such as tense and agreement

marking as well as nominative case assigned subjects are produced (Vainikka 1993/1994: 265).

Vainikka (1993/1994) proposes the Weak Continuity Hypothesis, claiming that only lexical categories are available to the child, leaving out the functional categories. She assumes that young children start their grammar with a VP. Then, once VP is fully fledged, they move on with IP and CP. However, she states that CP is not available in early child grammars. In a way, she adopts a developmental approach to the development of early child grammars.

Likewise, Clahsen, Penke and Parodi (1993/1994) study the longitudinal data obtained from seven monolingual German children (aged 1; 8-2; 9), with respect to verb placement, verb inflection, *wh*-pronouns and complementizers to discover evidence for functional projections. Their results indicate that children follow a gradual development of syntactic trees and morphological features.

Ingham (1998) reports on the case study data of a British child, Sophie, aged 2; 6 to 2; 9 which provides evidence that under the Structure Building approach for functional projections, there is a stage in the child L1 English language development without a subject agreement projection (AgrSP), but with a tense phrase (TP) which can been seen in the child's use of finite but non-agreeing verb forms as seen in the following examples:

6.

(a) Has you got a red one? (Sophie: 2;6)

(b) What are me singing mummy? (Sophie: 2;7)

(c) Is you in your room? (Sophie: 2;7)

(Ingham, 1998: 63)

Adapting the minimalist account, he emphasizes that the inflected main verbs are derived from V and finite clauses check the inflectional features successively at tense and agreement by verb raising that occurs in the logical form for English due to it having weak verb features. If the verb is non-finite in obligatorily finite contexts, which means the verb does not move out of the VP, it cannot occupy the Spec head relation between the verb and the NP, which is required for feature checking.

He predicts that the child at the [-Tns] and [+Agr] stage would produce utterances with non-nominative subjects, whereas the verb inflection especially in past tense contexts will be distinguishable and correct. He adds that when the child starts producing past tense forms, this would end the optional infinitive stage during which tense is assumed to be underspecified. As evidence, he focuses on the low suppliance of 3sg-*s*, lack of '*does*' forms accompanied by the lack of agreement in suppletive auxiliary forms. However, one shortcoming of his analysis is that the faulty use of agreement cannot be attributed to the missing functional projections.

Vainikka (1993/1994) investigates the data of five children between the ages of 1; 11 and 2; 3 from the CHILDES database. She reports that oblique subjects are observed in the data across the five children, as seen in the following examples:

7.

(a) My see that. Adam see that. (Adam,2;3)

(b) Get it. My get my car. (Naomi,1:11)

(c) Me hurt my bottom. (Naomi,2;2)

As for early VP structures, she observed that 'my' was the most prominent subject used. Such oblique or null subjects do not raise in Spec IP for nominative

case assignment since there is no Spec IP position to check their features, so they remain internally to VP. That is to say, the lack of subject raising results in occurrences of oblique or null subjects. In addition to the lack of raising to satisfy case assignment, the lack of modals, complementizers, analyzed copula and auxiliary *be* are also observed.

The following represents the stages of development in early child English (Vainikka, 1993/1994: 306-397):

8.

(a) Stage I (VP tree only –approximately between the ages 1; 11-2; 1):

- There are predominantly genitive subjects in Spec VP.
- There is no evidence for INFL elements (i.e. copula *be*, auxiliary *be* and *does* regular and irregular past forms, 3sg-*s*).

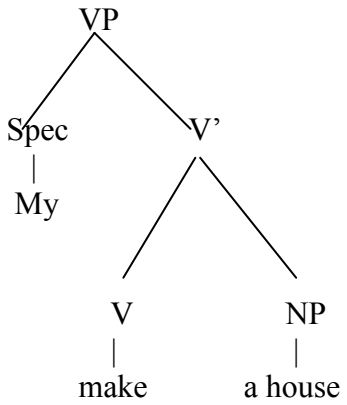

Figure 2.2 The tree structure of early child language in Stage 1

(b) b. Stage II (IP tree only-approximately between the ages of 2;1-2;2):

- There are predominantly nominative subjects in Spec IP.
- INFL material (i.e. copula *be*, auxiliary *be* and *does* regular and irregular past forms, 3sg-*s*) is being mastered.

- There are no constructions involving CP material (i.e. *yes/no* questions and *wh*- questions and overt complementizers).

See the following tree:

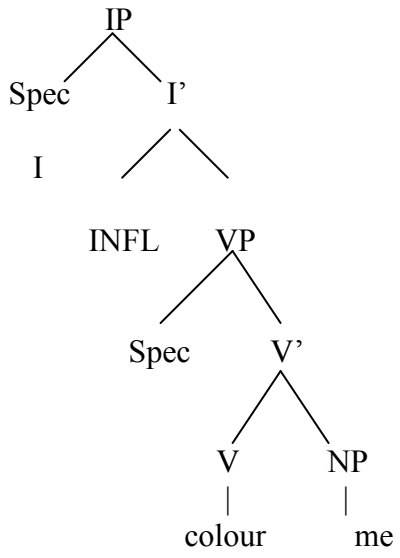

Figure 2.3 The tree structure of early child language in Stage 2

(c) Stage IIIa (CP being acquired- approximately between the ages of 2; 2-2; 5):

- Some examples of CP constructions are found.
- A CP may be projected with certain CP elements (i.e. *yes/no* questions and *wh*- questions and overt complementizers).
- A CP is not projected with certain CP elements (e.g. *wh*- phrases, among others), and the subject remains in Spec VP. See the following tree:

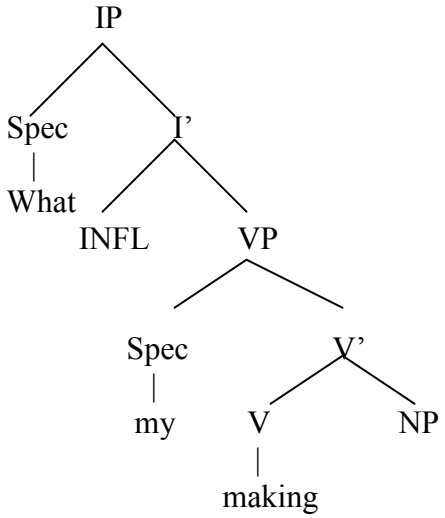

Figure 2.4 The tree structure of early child language in Stage 3a

(d) Stage IIIb (CP tree fully acquired- starting with age 2; 9):

- Adult CP constructions occur.

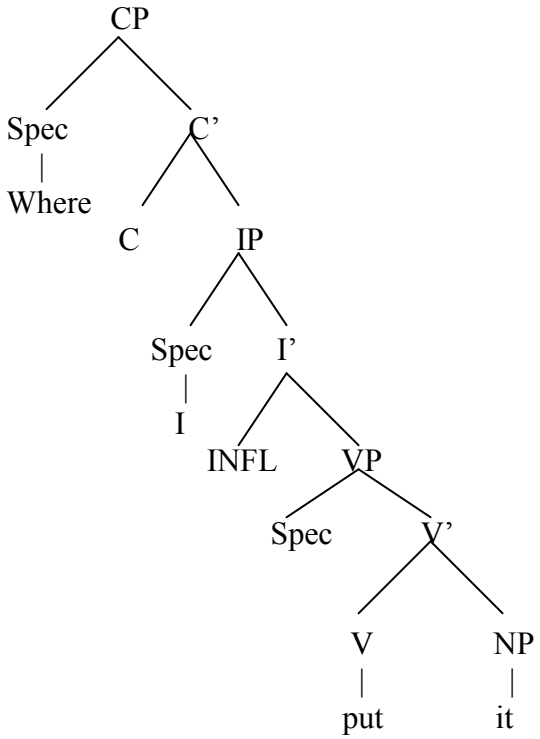

Figure 2.5 The tree structure of early child language in Stage 3b

Next, we continue our discussion with the Truncation Hypothesis which shares certain characteristics of the Weak Continuity Approach.

2.1.1.3. Truncation Hypothesis

The Truncation Hypothesis claims that around age 2 learners typically produce main clause declaratives with root verbs which are truncated structures (Rizzi, 1993/1994; Rizzi, 1994; Haegeman, 1996). Rizzi (1994) proposes that while the child language has full clausal functional projections, children make use of the option of not projecting the full clause structure given below:

9. CP> AGR(S)P>TP>AGR(O)P>VP

If a projection is truncated at a point in the clausal hierarchy that means all the dominating projections are also absent in the child language. For example, if TP is truncated, all the other projections above are not projected, namely, CP>AGR(S)>TP. Early null subjects, sudden growth of verbal utterances in ratio, verb final structure with finite verbs in V2 languages are characteristics of root infinitives under the truncation approach, and once the *wh*-questions, auxiliaries and subject clitics (in French) emerge, root infinitives come to an end (Rizzi, 1993/1994: 390).

2.1.1.4. The Strong Continuity Hypothesis

The Strong Continuity Hypothesis, on the other hand, argues that a full set of functional categories as well as UG constraints are available to the L2 learner even at the very initial stages of L1 acquisition (e.g. Wexler, 1990,1994,1996; Harris and Wexler, 1996; Bochnacker, 1997).

On similar grounds, Wexler (1994) proposes that children have full access to Universal Grammar even though the surface forms are sometimes present and sometimes missing in the spell outs of the children, thus, he coined the term Optional Infinitives (Wexler, 1994) to describe the morphological variability in child grammar.

Bochnacker (1997) argues against the absence of the DP layer in early child language acquisition by presenting evidence that the DP layer is present in Swedish child language after investigating the language development of the determiner phrase of Embla, between the ages of 1; 8-2; 1. Her analysis provides evidence for the presence of the DP structure, since the 50% of the child's nominal features are present, and 89% of her nominals are target-like, in addition to her 73% target-like overt determiner suppliance in obligatory contexts. It is concluded that the omission of determiners has nothing to do with the absence of functional categories; rather the high percentage of suppliance of the overt determiner should indicate that functional categories are present. This piece of evidence also argues against the Weak Continuity Hypothesis (Clashen, Eisenbeiss and Penke, 1996) since the emergence of possessive'*s* does not lead to an increase in the number of overt determiners produced in obligatory contexts.

2.1.1.4.1. The Optional Infinitive Stage (OI)

Wexler (1994) analyzes child data from European and Romance languages such as German, English, Dutch, Swedish, and makes the following predictions:

10.

(a) While child learners use finite and non-finite forms in the place of the other, they do not use incorrect finiteness morphemes.

(b) Finite verbs occur in finite positions and non-finite verbs occur in non-finite positions. But in child language during the Optional Infinitive Stage (henceforth, OI), non-finite verbs also occur in finite positions.

(c) Although the child's grammar is universally constrained, it will become like its adult counterpart once the child matures.

The occurrences of both finite and non-finite forms are observed in matrix sentences of child language lasting until approximately age 2; 7 (Wexler, 1994; Rice and Wexler, 1996; Harris and Wexler, 1996) and they provide instances of optionality of finite and non finite verb forms across a number of languages. See the following examples:

11.

(a) Sam sleep.

Sam sleeps.

(English)

(b) pas manger la poupée.

not eat the doll.

(c) trouve pas.

turn not.

(French, Pierce, 1992)

(d) Mein Hubsaube had Tiere din.

my helicopter has animals in it.

(e) Zahne pussen.

teeth brush.

(German, Wexler, 1994)

As one of our concerns in the present study deals with optionally inflected verb forms in child L2 English, it is useful to look at Wexler's predictions of the Optional Infinitive stage in L1 English. Wexler (1996) makes the following predictions for English Optional Infinitives:

12.

(a) Instead of using *–s* and *–ed* markings on lexical verbs, bare stems may optionally be used where inflected forms are required. According to the OI account, children optionally use infinitival forms (bare stems) where a finite form is required in the adult grammar as in the following:

i. She cook.

ii. She cooks.

(b) For *–s*, in contexts other than third person singular, there will be no overt marking, that is, errors like **they speaks* are not predicted to be productive.

(c) The OI Stage holds that children know about tense marking. What is not known is the obligation to mark finiteness (tense) in matrix clauses. Hence, the only difference between the adult form and the child language is the omission of *–ed* in obligatory contexts.

(d) Auxiliary and main verb *be* may sometimes be omitted by children who do not know that finiteness marking is obligatory.

(e) Auxiliary *do* may be omitted by the child until the finiteness marker becomes separated from the lexical verb.

(f) However, when *be* and *do* forms are used in obligatory contexts, children will give the correct agreeing forms.

(g) Null subjects will be used with non-finite forms only.

(h) Once past tense is acquired, then the OI stage will disappear.

As will be seen, these predictions are checked in the methodology part of the present thesis that provides counterevidence for the existence of the OI stage in Turkish child L2 learners of English.

As an explanation for the deficiency in tense, Wexler (1994) resorts to strong (henceforth AGR/st) and weak agreement (AGR/we) features. Finite thematic verbs will carry the AGR/st feature, the verb checks its features before Phonological Form, and the overt movement takes place, whereas, if AGR/we is selected then, the lexical verb does not have to check its features and it does not raise as a result, the non-finite forms are observed in child grammar.

Harris and Wexler (1996) study the spontaneous data transcriptions of 10 children between the ages of 1; 6 - 4; 1 and examine negation and inflectional marking. In accordance with the optional infinitive stage, they find that 43% of the affirmative sentences are inflected as opposed to 7-9% of inflected negative sentences. In addition, the tense forms are used correctly, that is to say, there are very few utterances used with past form for a future context.

Wexler (1996) proposes that children know that the finite verb has a feature that must be checked against tense, and that the economy conditions prevent a verb

from raising on the surface if it does not have to raise (p: 124). Thus, tense is deficient, however, once maturation takes place, the optionally inflected verb forms will disappear.

Since Wexler (1994) predicts that null subjects will not be used in finite contexts, he assures a strict relationship with the assignment of subjects to the finite forms, and therefore, it will be important to review some of the studies investigating pronoun case assignment of L1 English children. Rispoli (1994, 1998, 1999, and 2002) proposes a paradigm building approach as opposed to the Agreement/Tense Omission Model (henceforth ATOM) (Schütze, Wexler and Rice, 1998).

Rispoli (1994) states that pronoun case errors or overextensions like **me want it* are characteristics of early English child language. He examines the spontaneous production data of 12 children, 6 boys and 6 girls who are audiotaped one hour every month from 1; 0-3; 0. The paradigm building approach is based on child's efforts in searching for phonological consistency. See the following examples:

13.

(a) Him's a boy. (child 6: 2;9)

(b) Her cries a lot. (child 2: 3; 0)

(c) Now, can me do it? (child 3: 3; 0)

(d) My can do this. (child 7: 2;9)

(Rispoli, 1994: 168)

In four of the English pronouns, phonetic consistency can be identified for person and number. The initial consonant *y-* is used consistently for the second person pronoun, *h-* for the third person masculine pronoun, and *th-* consistently for

the third plural pronoun. Thus, the child extracts phones from his phonetic core, as Rispoli (1994) hypothesizes. Due to the irregularity of the English pronouns, the child, while learning these irregular forms, can access and retrieve default forms by mistake and as a result can fail to produce the target pronoun (p. 161). Based on the data he concludes that the objective forms are much more overextended than the genitive forms as opposed to one child whose extensions are limited to genitive overextensions (Vainikka, 1993/1994).

Rispoli (1998) studies the pronoun case overextensions of 21 children aged 2, 6 to 4; 0 and reports that the third person singular feminine pronoun *she* is overextended at a higher rate than *he* for *him* or *they* for *them,* due to double-cell effect since *her* is occupied as both the genitive and the accusative forms in the pronoun retrieval system of the child's phonetic core. However, he notes that since pronoun case overextensions are not developmental, they do not directly reflect the state of the development of INFL and its grammatical features (p. 547). However, Schütze (1999) states that Rispoli does not provide a formal specification for retrieval strength (p. 752) and he claims that there is no difference between the child and adult lexical retrieval systems. Schütze (2001) states that the Agreement/Tense Model deals with the optionality of subject pronouns, either nominative or non-nominative, in a stage where verbal inflection is optional in child interlanguage (see Wexler, Schütze and Rice, 1998 for a detailed discussion). Schütze (2001) adds that the rate of non-nominative subjects will be higher when verbal agreement is absent. Thus, there will be fewer non-nominative subjects once verbal agreement is in its place.

Rispoli (1999) holds an opposing position to the ATOM model, which holds that subject pronoun case errors cannot occur with expressed agreement; however,

Rispoli (1999) presents several counterexamples indicating just the opposite (see Rispoli, 1999: 371). In his analysis he reported that children exhibit both nominative and non-nominative subjects whether the agreement marking is present or absent.

Krämer (1993) shows that children's suppliance of subjects differs according to the finite and non-finite contexts, where they use fewer subjects with non-finite forms, which can be explained as children treating these forms as phonetically non-modals in INFL or Tense, thus she claims that the case filter is present from the very early child language development.

Philips (1995) predicts that the root infinitive forms used by the children and adults are not in fact different and case assignment is unique to each language. Thus, the use of root infinitives does not suggest any deficiency in child's syntactic representations, but rather it represents that the present inflectional features cannot syntactically be joined to each morphological feature. He also categorizes languages as V-raising where once the verb is raised, overt subjects will not be attached to root infinitives and in the non-V-raising languages like English, for instance, overt subjects can be seen both in finite or non-finite contexts.

To sum up, different accounts were given on the variation in the subject case assignment in first language development, which would also be a point of concern in our study to examine whether such optionality of nominative and non-nominative case assignment holds for the development of the child L2 English. Next, we continue with the studies related to the development of functional categories in L2 English.

2.1.2 Functional Categories in L2

As for the development of functional categories in L2, we will focus on the two studies below:

Lakshmanan (1993/1994) examines the developing grammar of a Spanish child, Martha, aged 4, learning English as an L2 over 8 months. She reports the early emergence of copula, verbless utterances containing *for* and complement clauses of *want* suggesting that INFL and case systems are operative at the very early stages of L2 acquisition. She partially explains Martha's avoidance of using lexical verbs due to her attention being focused on nouns and objects rather than verbs and actions. Another explanation regarding the omission of verbs could be based on learner's performance limitations. One final explanation posited by Lakshmanan (1993/1994) is related to the verb nucleus where learning a word means learning its meaning, thematic associations, subcategorizations, number and arguments that it can take so long that it should not be a big surprise to find the delayed emergence of lexical verbs since the learner will avoid violating the principles of UG.

Grondin and White (1996) study the L2 French spontaneous production data of two English speaking children, Kenny and Greg, at the ages of 4; 9 and 4; 5 over a period of three years searching for the absence or presence of functional categories in DP, IP and CP. The original data in this study come from Lightbrown (1977). As opposed to the L1 French acquisition of determiners, L2 French children exhibit a high rate of suppliance of determiners as well as their proper case assignment. A number of appropriate and inappropriate inflection forms are used on verbs with person agreement being mastered earlier than number agreement. Evidence from the IP related elements of the subject, the presence of correct placement of adverbs, the presence of inflections and subject clitics from the initial stage onwards, suggest that

there is no bare VP stage in L2 acquisition. The delayed emergence of complementizers could be due to the lexical forms of them not being realized or learned by the child. The appropriate use of *wh*- questions suggests the presence of a grammar containing CP. It is suggested that L1 based properties in the early grammar can be modified in response to L2 input. Thus, the realization of functional categories in L1 and L2 is not identical (p. 31). Next, we move on with three different positions proposed for the development of L2 functional categories.

2.1.2.1. The Minimal Trees Hypothesis

Similar to L1 acquisition trees of the Structure Building Hypothesis, (Vainikka, 1993/1994), within the Minimal Trees Hypothesis (Vainikka and Young-Scholten, 1994, 1996a, b, 1998) only the presence of lexical projections (minimal trees) are initially available in the L2 grammatical representations despite the transfer of functional categories.

The Vainikka and Young-Scholten (1994) study is based on data obtained from 11 Turkish and 6 Korean adults learning German. They propose a scale of development as indicated below:

14.

Agreement → Verb raising → No null subjects → Head Final VP (p. 279)

Vainikka and Young-Scholten (1996a) make a similar claim of development of successive development of functional categories depending on the data obtained from Korean, Turkish, Italian and Spanish speaking adults acquiring German without instruction.

In the Minimal Trees Hypothesis, UG is fully accessible to the child, but only lexical categories can be transferred to the second language. In addition, suffixal agreement acts as a trigger for L1 acquisition whereas it is the free forms (e.g. modals, auxiliaries) that act as a trigger for L2 acquisition. Thus, the emergence of functional categories will take time to be overtly realized based on the learners' analyses of the input data.

Here are the stages proposed for the L2 development:

15.

(a) An initial VP stage with no functional categories,

(b) An FP, an underspecified finite stage, which is characterized by the emergence of a single functional projection with underspecified (Agr) features,

(c) An AgrP stage where agreement features are specified,

(d) A CP stage with overt complementizers, *wh*- questions and productive acquisition of I to C raising.

Similar to L1 acquisition theories proposed under a structure building approach, at the very initial stages, the grammar of the L2 learners only consists of transferred lexical projections and then learners build up minimal trees based on the input within the guidelines of UG. One distinction between the children and adult learners is what acts as a trigger for the agreement phrase to be acquired : They claim that it is the agreement for children, but for adults it is claimed to be the word order and auxiliaries.

Paradis, Corre and Genesee (1998) examine the acquisition of tense and agreement of L2 French by 15 English-speaking children who are interviewed

individually once a year for three years. The interview questions are designed to elicit present, past and future tenses. They argue that the child learners are different from adults in their use of third person plural, past and future tenses; however, their use of verb movement and subject clitics are in adult form, suggesting optionality on tense, but agreement being fully specified. Under the Minimal Trees, the emergence of the agreement phrase (henceforth AGRP) before the tense phrase (henceforth TP) will be viewed as the TP and AGRP are competing grammars. The researchers also reject the Full Access/Full Transfer Hypothesis since tense and agreement do not emerge at the same time but rather in succession, agreement appearing first. Thus, they adopt Eubank's (1993/1994) Valueless Features Hypothesis[1] (henceforth VFH) to account for an explanation of their data. Under the VFH, TP is present in the grammar as a whole, but it is not projected in clauses where <+tns> morphology has either not been acquired or accessed in production.

All in all, the Minimal Trees Hypothesis holds that the development of functional categories in L2 takes place successively, whereas the lexical heads are transferable from L1 to L2 at the initial stages. We continue our discussion with the second position, the Full Transfer/ Full Access Hypothesis.

2.1.2.2. The Full Transfer/Full Access Hypothesis

Full Transfer/Full Access Hypothesis holds that functional and lexical categories are fully available and accessible to the L2 learner. The source of lexical and functional categories in the learners' interlanguage grammars is the L1 knowledge. Under this theory, then, the initial state of the L2 acquisition is

[1] Eubank (1993/1994, 1994a, b, 1996) proposes "The Valueless Features Hypothesis", claiming that the values associated with functional categories such as +/- strong (e.g English having weak feature

characterized by the properties of the L1 grammar. One therefore should expect transfer effects onto the second language from the first language (Schwartz and Sprouse, 1996).

Schwartz and Sprouse (1996) examine the data of a near-fossilized L1 Turkish speaker, Cevdet, acquiring L2 German. The researchers focus on the position of finite verb (both thematic and non-thematic), the fronting of the nonsubject constituent X, and the type of subject in the overall data. Schwartz and Sprouse (1996) argue that L1 and L2 acquisition are different since the L2 learner brings the full set of fixed UG constraints from his L1 into the process. It is also important to note that the strong desire for communication for early L2 acquirers would lead them to push their current performance and that should not be indicated as evidence of their incompetency. As the researchers indicate:

> *"*In short, the cause of any (developmental) differences in the L2 acquisition of a particular language that covary with native language must be present from the beginning (namely, must be the result of the L2 initial state), precisely because the cause of such covariation cannot be in the input, since this remains constant.*"* (Schwartz and Sprouse, 1996: 67).

Thus, the path of L2 development with different L1s will reveal differences. These differences can be observed both throughout the process of acquisition itself, and at the end state learners.

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values, whereas, French having strong feature values depending on the inflectional richness) do not transfer from L1 at intial stages, but their functional projections do.

2.1.2.3. The Missing Surface Inflection Hypothesis (MSIH)

As seen in the previous sections, the question of whether or not L2 learners have access to functional categories in the early stages of interlanguage grammars has received considerable attention (Eubank, 1993/1994; Gavruseva and Lardiere, 1996; Grondin and White, 1996; Haznedar, 1997; Lakshmanan, 1993/1994; Schwartz and Sprouse, 1996; Vainikka and Young-Scholten, 1996). In recent work, the focus has shifted to the question of whether the lack of functional elements represents syntactic impairment in the grammar of the learner. In other words, can one assume that missing functional elements suggest missing functional categories? While for some researchers, missing tense or agreement markers indicate impairment in the grammatical representation of the learner (e.g. Vainikka and Young-Scholten, 1994; 1996; 1998), for others the lack of functional elements does not necessarily indicate syntactic impairment in L2 acquisition, but rather refers to dissociation between syntax and morphology (Haznedar and Schwartz, 1997; Haznedar, 2001; 2003; Lardiere, 1998a; 1998b; Prévost and White, 2000; Herschensohn, 2001; Borer and Rohrbacher, 2002; Ionin and Wexler, 2002; White, 2003a).

Lardiere (1998a; 1998b) investigates the L2 English data of an adult Chinese speaker, Patty, who is a fossilized end state learner of English with low suppliance rates of verbal inflectional morphology (34%), yet a high percentage of suppliance of the nominative case assignment (100%) and a robust evidence for CP. These findings present a sharp contrast with the Minimal Trees Hypothesis, since CP is seemingly produced at higher rates than the suppliance of inflectional morphology. For Lardiere, the different rates in the suppliance of IP and CP can be taken as evidence for fossilization since Patty may never reach the optimum level of suppliance of IP even though she has the full CP structure.

Prévost and White (2000) examine the longitudinal spontaneous production data gathered from four adult speakers learning L2 French and L2 German in naturalistic environments. Their precise predictions are as follows: (i) finite verbs will be found only in finite contexts, whereas non-finite verbs truly can be non-finite or act as a default form, (ii) finite forms obligatorily should precede negation in L2 French and German, (iii) where finite forms are used, agreement will be appropriate. These predictions are tested in root and non-root sentences within the matrix declaratives, embedded clauses and interrogatives.

No variation in the placement of the verbs and adverbs with respect to negation is observed, hence it is concluded that features associated with the relevant functional projections are available to the learners from the very beginning. Since both groups of learners use non-finite forms in place of the finites, their finite forms are restricted to only finite (raised) contexts fulfilling the prediction made. When the verbal agreement is examined, it is seen that the accurate use of inflectional marking is around 95% in addition to the almost 98% of accuracy in distinct suppletive forms, suggesting that agreement is in place. Non-finite (bare) forms are just finite defaults rather than evidence for incorrect agreement (p. 123), which is further supported by the correct use of subject clitics in L2 French. What this suggests is that adult learners can differentiate between the +/- finite forms.

In order to provide an account for the variability in morphosyntactic behaviour of finite verbs, Prévost and White (2000) resort to Lardiere's (2000) explanation of a mapping problem between the surface forms and the abstract features. Lardiere's perspective is based on the Distributed Morphology (DM) (Halle and Marantz, 1993) where the features of a lexical item should be checked by the host syntactic node and if there is a mismatch, the form with the most features gets to

occupy the node. According to Prévost and White, non-agreeing and non-finite forms are observed because feature specifications cannot be matched with lexical items. Thus, the underspecified non-finite forms can occur in finite contexts, yet finite forms are specified so they are not expected to be used in non-finite contexts.

Haznedar (2001) investigates IP-related elements, namely, copula *be*, auxiliary *be*, 3sg –*s* and regular and irregular past tense forms, the development of modal verbs and the distribution of overt and non-nominative subjects on the basis of the data obtained from Erdem, a 4; 3 year-old Turkish child, with no prior exposure to English, over a period of 18 months. She reports that Erdem's development of the copula *be*, auxiliary *be* and the overt subjects takes place more quickly and initially than the development of modals and verbal inflection. She states that Erdem realises that English is a non pro-drop language at the very initial stages of exposure by providing overt subjects with a percentage of 94% in sample 9, yet he cannot produce any 3 sg –*s* inflections until sample 15. Thus, her findings are compatible with Lardiere (1998a, b), presenting a distinction between the feature assignment and postsyntactic realisation of these features.

Herschensohn (2001) studies the L2 French interlanguage of two high school students, Emma and Chloe, at an intermediate level over a period of six months on the basis of data from a series of interviews. Herschensohn (2001) specifically examines the relationship between the explicit morphology and functional categories, mainly focusing on verb inflections. The overall rate of morphological inflection suppliance is high for both subjects (better than 89%) when compared to Lardiere's (1998a) Patty, who is only able to provide the inflection of 34% of tense inflection in obligatory contexts. There are also many utterances that represent the full syntactic tree of functional projections, suggesting that TP, AGRP and CP are present in the

learners' interlanguage. Of the 16 infinitival forms used, five have a DP subject, nine have a clitic subject and only two have null subjects suggesting that L2 learners do not manifest the predictions regarding the case assignment and DP structure proposed by the Optional Infinitive Stage (Wexler, 1994). In addition, the infinitival forms used by the subjects are not root infinitives since they are used with DP and nominative clitic subjects and post verbal negation not with null pronouns or preverbal negation (p. 292). Thus, the infinitival forms are defaults or missing surface inflections due to the interlanguage processing difficulties where the subjects frequently resort to repair mechanisms, but they are not the root infinitives of the child language.

Ionin and Wexler (2002) examine 20 Russian L1 speaking children's L2 English ranged in age from 3; 9 to 13; 10. On the basis of spontaneous production data and a grammaticality judgment task of 56 test items, Ionin and Wexler (2002) predict that L2 learners will produce non-finite forms in place of finite forms, although the full syntactic structure tree and its relevant feature checking mechanisms are present. They also hypothesize that L2 learners will be more successful at providing tense and agreement on suppletive forms rather than affixal ones.

As for the morpheme omission rates, Ionin and Wexler (2002) state that L2 learners represent the highest level of omission for 3sg *–s* (78%) and the lowest for copula *be* (16%). These findings suggest that the acquisition of suppletive forms emerge before the affixal morphology despite the fact that Russian has a rich affixal paradigm of verb inflection but lacks an overt suppletive *be* form, which eliminates the option of transfer. If the high omission rate of 3sg *–s* is not due to phonological constraints then, we would expect a higher rate of production of *– s* with irregular

verbs, which has never occurred. Plural – *s* is also studied to find out whether high omission rate of 3sg – *s* has something to do with reduction of verb final morphemes; however, it was found that the omission rate for plural – *s* is only 11%. With respect to both adverbs and negation, the L2 learners know the different placement of the thematic verbs and auxiliaries.

In examining the relationship between null subjects and finiteness Ionin and Wexler (2002) find a very low percentage (1.8%) of omission of subjects which differentiates the language development of the L2 learner of English from that of L1 by presenting counterevidence for the existence of the Optional Infinitive Stage for L2 learners of English. Tense and agreement errors are rather low, being only 4 (5%) instances of the whole corpora of 20 children in the obligatory contexts of the third person singular – *s*.

Learning affixal morphology can be attributed to the long movement of thematic verb raising to check its features for tense and agreement, thus the child should learn the language-specific morphological rules along with the necessary time and input. Once the child masters the English-specific rule, then no default forms will be observed in finite contexts.

As for an explanation for omissions of *be* forms, despite its highly correct suppliance in obligatory contexts, following Prévost and White (2000), Ionin and Wexler (2002) argue that omissions could be due to difficulty in access and retrieval of the correct form.

The grammaticality judgment task applied consists of four groups for both the thematic and non thematic verbs; the good inflection items (e.g. The boy likes cheese/ The girl is little/The dog is sleeping), Optional infinitive items (e.g. *The boy want the toy/ *The dog angry/ *He jumping on the bed), Bad grammar items (*I goes

to the movies everyday/ *The boy are tall/ *We is sleeping) Dropped –*ing* items (*You are read a book) (p: 136). The results obtained are similar to the results obtained from the spontaneous production data. That is to say, the subjects perform better on non-thematic verbs, such as copula *be,* when compared with their thematic counterparts. However, the 40% of acceptance of *be* omissions cannot be attributed to access and retrieval problems due to the nature of the test. Thus, both the *be* omission rate and 43% of the **I goes* utterances could be due to the nature of the task and communication pressure. All in all, Ionin and Wexler (2002) conclude that UG is available, however, it takes time for L2 learners to make the necessary adjustments on parameter settings in accordance with the morphological features of the target language.

Haznedar (2003) studies the development of CP in Erdem's data over a period of 18 months. She specifically analyses *yes/no* questions, *wh*- questions and overt complementizers, namely, *because*, *if* and *that*. As one of the findings she reports that although Erdem sometimes fails to insert auxiliaries in *wh*- questions, he constantly inserts auxiliaries in *yes/no* questions. In addition, her findings are in contrast with the Minimal Trees hypothesis since the development of Erdem's CP structure does not follow an order of CP>IP>VP. Even though Erdem fully inflects the copula and the auxiliaries *be* and *do* with a percentage higher than 90% a year after the onset of the study, the inflection rate for 3sg –*s* and past tense forms never reaches the 80 or 90%. Thus, CP related elements as well are acquired prior to the use of tense and agreement morphemes. In essence, Haznedar (2003) proposes that the L2 child learner does not have problems with the underlying syntactic deficiencies, but that the problem lies in the surface morphology.

White (2003a) studies the fossilised endstate L2 English grammar of an adult native speaker of Turkish, SD, whose data is collected within 18 months of two time intervals. The verbal and nominal inflections are studied. The high suppliance of nominative subjects (100%) with more than 93% of the obligatory contexts and despite some rate of omission of tense and agreement morphology, they are used correctly and at a high rate (averaging around 80%).

As for the nominal domain, the suppliance of plural morphology was 87%, the definite article 72%, and the indefinite article 60% where the most number of omissions are observed. In addition, no fluctuation was observed regarding the use of definite articles for indefinites or vice versa, proposing that SD is unconsciously aware of the distinction between definiteness and indefiniteness. White also reports that obtaining similar percentages at both interviews despite the time lag between the two interviews suggests that SD has a fossilized end state grammar and the omission rates for both the nominal and the verbal domain are due to the differences between the prosodic structures of the L1 and the L2 of the subject.

To conclude, in the study discussed above, White states that the presence of morphological varibility in SD's interlanguage cannot be attributed to the underlying syntactic deficits, which is an area we will return to in the present study, especially for the analysis of the omission rates in the acquisition of the L2 English article system by Turkish child learners.

In sum, from the perspective of MSIH, the seemingly absence of functional categories does not entail their absence in the underlying syntax, rather their absence is due to the mapping problems of surface elements to their abstract features (Haznedar and Schwartz, 1997; Prevost and White, 2000; Lardiere, 2000).

In the present study, points of investigation regarding the development of the inflectional morphology are the availability of functional categories (IP and DP) and the associated functional elements, namely, copula and auxiliary *be*, 3sg–*s*, regular and irregular past forms, possessive constructions and the definite and the indefinite articles. We will also extend our research questions to investigate whether L2 learners of English go through the Optional Infinitive Stage or not, which will take us to a discussion of the issue of morphological variability in the child L2 grammar.

2.1.3. The Acquisition of DP Related Elements in L2 English

2.1.3.0. Introduction

Much current research has focused largely on the study of morphological variability, especially in the verbal domain of children acquiring English as an L2 (e.g. Ionin and Wexler, 2002). There are few studies examining the English L2 development of children with different L1s with respect to the English determiner system (e.g. Jin 2003).

Ekiert (2002) presents a table of the early studies on the article acquisition in L2 English:

Table 2.1 The Early Studies on the Article Acquisition in L2 English (Ekiert, 2002: 5 and 6)

Study	Research questions	Participants	Procedures	Findings
Hakuta (1976)	What is the order of acquisition of grammatical morphemes (including articles) in the interlanguage of an SLA child?	5-year-old Japanese girl acquiring English in a natural way.	Longitudinal- 60 weeks. Every two weeks spontaneous production speech was recorded while the girl was playing with	Articles *a* and *the* are required as a system. Performance on *the* was initially better than on *a* . Overuse of *a* and *the* involved specific/nonspecific

			peers.	distinctions as well as violations of "for singular NP only" rule.
Huebner (1979,1983)	How does the article system in an adult's interlanguage system develop? What are the differences between different methods for investigating developmental patterns?	23-year-old Laotian, a speaker of Hmong acquiring English in a natural setting (at the starting point of the study qualified as a beginner).	Longitudinal-54 weeks. Every three weeks a tape was made of the subjects' narratives. Bickerton's model was employed. Appearance of morphemes in obligatory contexts as well as nonobligatory contexts was taken into account.	*The* emergence early, overgeneralization of *the* results in "the-flooding", *a* appears late in L2 acquisition. Differences in approach to data analysis result in different and sometimes apparently opposing conclusions concerning the nature of interlanguage.
Tarone (1985)	To what extent will ESL learners' production of grammatical, morphological, and phonological forms (including articles) vary depending on a task?	Twenty ESL learners studying at the University of Minnesota. Ten speakers of Japanese and ten speakers of Arabic.	Three tasks: -written grammaticality judgment -oral interview with a native speaker of English -oral narration of a sequence of events depicted nonverbally on a video screen.	Utterances of ESL learners show systematic variability in grammar and morphology (including article) related to each task. To some extent grammatical accuracy was much better in spontaneous oral communication than a written grammar test.
Parrish (1987)	Can a combination of methods of analysis account for the systematic nature of interlanguage variability? Is there systematicity in the learners' use of articles?	19-year-old Japanese classroom learners of EFL, four months of ESL (at the starting point of the study qualified as a beginner)	Longitudinal-16 weeks. Every ten days a tape was made of two narratives recycling the same topic (one about Japan, and one describing the city and the campus). An analysis based on	*Zero* articles was acquired first, followed by *the*, and finally *a*. The subject exhibited a gradual rise in the use of *the*, reaching an 84% accuracy rate in the end, and lesser accuracy with *a*, reaching a 50% accuracy rate at the

			suppliance of morphemes in obligatory contexts and Huebner's classification was conducted.	end of the study. *Zero* article was overgeneralized
Tarone and Parrish (1988)	What kind of NP types, containing different categories of articles would be elicited by diversified tasks?	20 ESL learners studying at the University of Minnesota. Ten speakers of Japanese, and ten speakers of Arabic.	Three tasks: -written grammaticality judgment -oral interview with a native speaker of English -oral narration of a sequence of events depicted nonverbally on a video screen.	Production tasks, such as interviews and essay writing, produced lower error rates than objective tasks, such as cloze test. Lower error rates in production tasks were attributed to learners' avoidance of uncertain uses of articles. Accuracy within one type of article would change across different tasks.
Thomas (1987)	What are the similarities and differences between the L1 and L2 patterns in article acquisition? Do learners associate the definite article with the [+SR] contexts rather than with [+HK]? If so do adults overuse *the* in [+SR,-HK] (first mention) contexts?	30 adult ESL learners aged 24-46(low, intermediate and high levels of proficiency). Seven speakers of [+ART] languages, 23 speakers of [-ART] languages (Japanese, Chinese, Korean, Finnish)	Paired story telling task: one member of a pair composes a story based on the drawings and narrates it to the second subject, who cannot see the pictures.	Unlike L1 learners, ESL students did not exhibit early and accurate control of *a* in the [-SR,-HK] contexts, and *the* in [+SR, +HK] contexts. The source of errors or L2 learners is overgeneralization of the *zero* article or failure to use any article. Overproduction of *zero* was considerably higher for the [-ART] group than for [+ART] group. L2 learners overgeneralized *the* in [+SR,-HK] contexts; however, data did not show signs of *the*-

				flooding.
Master 1987, (as cited in Master 1997)	How does the English article system develop in the interlanguage of speakers of [+ART] and [-ART] languages?	20 ESL learners, speakers of [-ART] (e.g. Japanese) and [+ART] (e.g. Spanish) languages enrolled in an ESL program.	Not specified.	Acquisition order of articles differs depending on subjects' L1s. *Zero* dominates—it is the first article to be acquired. The emergence early, flooding all environments. For [-ART] learners, acquisition of *a* is delayed compared with *the*.

In the early literature, before the 1990s, apart from Hakuta (1976), all of the other researchers focus on the adult development of the L2 English article system. The studies above consider specific reference and hearer knowledge (i.e. *de re* / *de dicto*) to be instrumental in article choice in L2-English. Early studies hold that both L1 and L2 users of English overgeneralize the definite article. On the other hand, although L1 learners manifest an early and accurate control on the indefinite article *a*, the L2 learners' correct use of the indefinite article *a* is delayed when compared to the definite article *the* (Thomas, 1989: 349). In addition, article omission errors, which are observed only in the initial stages of L1 acquisition, are high in L2 learners of English especially if they have – articled L1s (e.g. Thomas, 1989; Ionin, Ko and Wexler, 2005).

Robertson (2000) works on the variability in the use of English article system by adult Chinese learners of English. In an experimental study, he examines data from 18 Chinese learners of English doing their postgraduate studies at an English University. He focuses on the use of the English articles and the determiner system. He reports that the suppliance rate of the definite articles (79.7%) is higher than the indefinite articles (72.1%). To explain whether there is a systematicity or not in the

omission of the definite and the indefinite articles, he comes up with three explanations; the syntactic principle of "determiner drop," where an NP need not be overtly marked for [+/-definiteness] if it is included in the scope of the determiner of a preceding NP, "the recoverability principle," whereby an NP need not be marked for [+/- definiteness] if the information coded in this feature is recoverable from the context, and finally, "the lexical transfer principle," where some of the learners are using demonstratives (particularly *this*) and the numeral *one* as markers of definiteness and indefiniteness respectively (p.169). For the rest of the unsystematic variation of the definite and indefinite articles he turns to the findings of Haznedar and Schwartz (1997), Lardiere (1998a) and Prévost and White (2000) indicating that these learners are having difficulty mapping the surface forms (*the*, *a* and the *zero* article) onto the abstract features of the DP ([+/- number], [+/-definite]) (p. 166).

In recent work on the acquisition of the determiner system, the focus has been placed on testing the availability of functional categories in L2. In a recent study, Jin (2003) explores the effects of L1 (Korean)-if there are any and if there are to what extent- on the (re) setting of the parametrical values of L2. His research questions regarding the DP are given below:

i. Do Korean children -with no Korean equivalent of the English definite and indefinite articles – mark *the* better than *a?*

ii. Do they mark possessives better than articles?

iii. Do they mark demonstratives better than articles?

iv. Do they mark plural –s better than articles?

Jin (2003) conducts an imitation task on a group of 50 children, 20 being the control group and 30 being the experimental group. The control group consists of two subgroups of 10 native English speakers each; the first group at an average age of 4; 07 and the second group 6; 06. The experimental group consists of 30 Korean speakers of English L2 learners; who are again divided into two subgroups; 15 children having an average age of 6; 02 and the rest 15, 8; 01. The Korean children indeed mark possessives and demonstratives better than articles. In terms of the marking of the definite and indefinite articles, there were inconsistencies among the two experimental groups with different ages, the younger group marked the indefinite article better than the definite article, whereas the older group marked the definite article better that the indefinite article. However, Jin is far from bringing a plausible explanation to such difference. His final hypothesis is not supported as he expected. He concludes by supporting the full transfer view according to which all lexical and functional projections of L1 are carried over at the start of L2 acquisition.

Much recent work on the acquisition of the determiner system has focused on two hypotheses: (i) the fluctuation hypothesis (Ionin, Ko and Wexler, 2003; 2005), (ii) the prosodic transfer hypothesis (Goad, White and Steele, 2003; Goad and White, 2004). The next section presents a brief overview of the two hypotheses in order to pave way for the related issues addressed in the present study.

The analysis of L2 English articles in is based on definiteness, referentiality or the *de re / de dicto* distinction (Ionin et al., 2005; Snape, 2002). Consider the following definitions and examples:

16.

1. **Definiteness**: A DP is definite if its referent is known to both speaker and hearer, and is unique in the contextually relevant domain. Otherwise, a DP is indefinite.

(a) *Definite*: I read a book. **The** book was interesting.

(b) *Indefinite*: I read **a** book yesterday.

2. **Referentiality**: An indefinite DP is referential if the speaker has its referent 'in mind' and intends to refer to it. Otherwise a DP is quantificational.

(a) *Referential indefinite*: I read **an** interesting book that my sister gave me.

(b) *De re indefinite*: I'd like to meet **a** famous writer- I really like his novels.

3. **The de re / de dicto distinction**: An indefinite DP is de re if it is not in the scope of an operator such as an intensional verb, a modal, or negation. Otherwise, the DP is de dicto.

(a) *De re indefinite:* I'd like to meet **a** famous writer –I really like her books.

(b) *De dicto indefinite*: I'd like to meet **a** famous writer- any famous writer will do.

(Fodor and Sag, 1982)

Ionin and Wexler (2003) conduct an elicitation and a written translation task on 12 Russian beginner, intermediate and advanced L2 learners of English. In the

first part of the tasks, the Russian learners are asked to translate 56 sentences involving 14 different context types from a short story that they read in their L1. In the second part, the same group of learners is supposed to read 52 dialogues in Russian, their native language, to complete the final English sentences with a missing article. Their study reveals that L2 English learners of Russian fluctuate between definiteness and referentiality in their choice of articles. Thus, contrary to early studies, the *de re*/ *de dicto* distinction does not seem to play a role in L2-English article choice, rather L2 learners associate *the* with referentiality.

Snape (2002) uses a similar taxonomy as Ionin et al. (2005) to examine the omission and suppliance of the English articles on advanced and intermediate Japanese and Spanish learners of English. The study is conducted on 3 Japanese and 3 Spanish subjects whose ages range from 23-40.The first task of the study is a story recall task where the participants are presented with 13 short stories containing certain contexts where different articles could be used. The subjects are expected to recall the stories with the help of the prompts given. The second task of the study is a gap-filling task that contains 16 dialogues to be completed with articles. Snape (2002) reports that the learners are more accurate in the written production test than the oral one. Both the Japanese and the Spanish learners tend to omit articles rather than overuse them. In addition, advanced Spanish learners are more accurate in their article choice than the advanced Japanese learners. Overall, the Spanish learners appear to be more accurate in their article use than the Japanese learners due to L1 transfer. To conclude, Snape (2002) states that the optionality in the use of articles especially with the Japanese learners presents evidence in favour of the Missing Surface Inflection Hypothesis (MSIH).

In recent work, Ionin et al. (2003, 2005) adopt the Article Choice parameter, which distinguishes two-article languages such as English and Samoan, on the basis of definiteness and specificity.

The Definiteness Setting: Articles are distinguished on the basis of definiteness.

The Specificity Setting: Articles are distinguished on the basis of specificity.

Table 2.2 presents article grouping for two-articled languages

Table 2.2 Article Grouping: Two-articled Languages:

DP type	Setting I (e.g. Samoan)	Setting II (e.g. English
Non-specific indefinites		
Specific indefinites		
Definites		

(Ionin and Wexler, 2003: 158)

For L2 English article choice, Ionin et al. (2005) assume that L2 learners access parameter values which are instantiated in neither their L1 nor their L2, but which are possible UG options. To exemplify, they state that in Thomas (1989), it is found that L1- Spanish speakers acquiring English appear to (optionally) adopt a value for the Government Category Parameter (GCP) which is wrong for Spanish and English, but appropriate for Japanese (p. 17). Thus, learners may have access to multiple parameter settings at the same time. As a second prediction, they are concerned with the optionality in parameter resetting. For instance, they report some cases where during the parameter resetting from the L1 value to the L2 value, L2 learner's behaviour is neither 100% consistent with the L1 parameter setting, nor

100% consistent with the L2 parameter setting. As evidence, they resort to Vainikka and Young-Scholten (1996b), claiming that the speakers of SVO languages who are acquiring SOV languages go through a stage during which they use both SVO and SOV constructions.

As can be seen in the discussion below Ionin et al. (2005) claim that the Article Choice Parameter can be set through generalization across individual instances. Since generalization will depend on the subtlety of discourse triggers related to speaker and hearer knowledge, this process will be weary and long for the L2 learner. Therefore, fluctuations between parameter settings will be observed.

In a much recent study, Yılmaz (2006) investigates the development of the L2 English article system in adult learners with L1 Turkish background. A fill-in-the article, a written production and an elicited oral production task are conducted on two different proficiency groups (advanced and beginner) consisting of 20 college students each. She reports that Tukish learners are able to distinguish definite contexts more consistently than the indefinite contexts. However, omission of articles is frequent. The results also support the delayed acquisition of the indefinite *a/an*. It is also reported that learners overgeneralize *the* into *a/an* and *zero* article contexts. Learners also seem to have difficulty with the use of the *zero* article.

2.1.3.1. The Fluctuation Hypothesis (FH)

Ionin et al. (2003, 2005) propose the Fluctuation Hypothesis depending on the following premises:

1) L2 learners have full access to UG principles and parameter settings.
2) L2 learners fluctuate between different parameter settings until the input leads them to set the parameter to the appropriate value.

They also note that if the parameter exists in L1, it will be transferred to L2, if not, it should assume optionality. They also point out that the difference between L1 and L2 acquisition is that L1 parameters are set at a much quicker pace than the L2 parameters.

Ionin et al. suggest that L2 learners may adopt neither the L1 nor the L2 parameter settings stating:

> "L2 learners should have no initial preference for one setting of a parameter over another: If they have full UG access, then they should have access to all of the possible parameter settings, until the input leads them to choose the parameter setting appropriate for their L2." (Ionin et.al., 2005: 21).

Ionin et al. (2005) conduct a set of tasks in 30 Russian L1 and 40 Korean L1 subjects, ranging between beginner, intermediate and advanced proficiency levels with a control group of 14 native English speakers to find out whether the multiple access to parameter settings occur in the semantic domain of the article system in the absence of transfer and whether definiteness or specificity mark the use or misuse of English Article system. They use a set of tasks: a forced choice elicitation task, a written production task and the written portion of the Michigan test of L2 proficiency. Both group of learners exhibit optionality of article use in the [+ definite, - specific] and [-definite, + specific] contexts, where advanced groups are more accurate than the intermediate groups in their choice of articles. However, in [+definite, + specific] and [-definite, - specific] contexts no fluctuation is observed and both groups use articles appropriately. Ionin et al. (2005) report that both group of learners overuse *the* with indefinites and *a* with definites due to the role specificity plays in L2-grammar.

The reasons for fluctuation in the choice of article use in the L2 learners of English are attributed to the ambiguous discourse triggers and the lack of adequate explicit instruction in article use (Ionin et al., 2005).

2.1.3.2. The Prosodic Transfer Hypothesis (PTH)

In contrast to the Fluctuation Hypothesis, the Prosodic Transfer Hypothesis holds that if L1 and L2 differ in terms of their prosodic structures, L2 learners may manifest high omission rates in their production of the target forms.

Before we start our discussion on the Prosodic Transfer Hypothesis, we need to illustrate the levels of prosodic hierarchy for English as represented in the following phrase structure (Demuth, 1995; 2000: 5).

17.

Utt	(Phonological utterance)	I think Sue likes bananas
|		
IP	(Intonational Phrase)	Sue likes bananas
|		
PP	(Phonological Phrase)	likes bananas
|		
PW	(Phonological Word)	bananas
|		
Ft	(Foot)	nanas
|		
σ	(Syllable)	nas
|		
μ	(Mora)	na

Figure 2.6 The levels of prosodic hierarchy for English

As can be seen in the figure, segments are organised into syllables, syllables into feet, which is the domain of stress assignment feet into prosodic words, and prosodic words into phonological phrases. Languages that follow the structure

above have strict layering, whereas there are some other languages that violate such a strict order of layering.

The Prosodic Transfer Hypothesis tries to account for high omission rates of the target language affixal and suppletive forms through differences between the prosodic structures of the native and the target language. Although transfer effects play a crucial role for the languages with the same prosodic structures, whenever there is a mismatch, learners avoid producing the target form. Goad and White (2004) propose that Prosodic Transfer Hypothesis could provide additional explanation to the Missing Surface Inflection Hypothesis to some extent since both hypotheses would predict persistent low suppliance of functional morphology. The PTH claims that the production of L2 inflectional morphology
and function words is constrained by the prosodic representations available in the L1. The Prosodic Transfer Hypothesis predicts that:

> "Functional material which is appropriately represented in the syntax may be deleted in production if prosodic structures necessary in the L2 cannot be built from the licensing relations available in the L1: consequently, native-like prosodification of functional material will be impossible and L2 outputs will not be target-like. Importantly, the Prosodic Transfer Hypothesis is concerned with the role that the L1 plays in the production of functional material in L2 outputs. L1 prosodic constraints do not, on our view, act as a filter in comprehension, which could prevent the establishment of the necessary syntactic representations in the L2."(Goad and White, 2004: 1).

We will next present the prosodic hierarchy for Turkish and English. First we present the prosodic structure in Turkish, which is a head final agglutinative language, with verbs suffixed for tense, aspect, person and number. Thus, as an affixal language Turkish makes use of 'affixal clitics', which are organised, internal to the PWd.

18.

(1) The following figure presents Turkish tense and agreement paradigm (at the right edge):

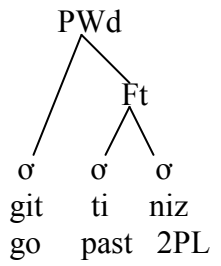


Figure 2.7 Tense and agreement paradigm in Turkish

However, English prosody in tense and agreement paradigm involves ´affixal clitics' which are adjoined to PWd as in the following example:

(2) The following figure presents English tense and agreement paradigm (at the right edge):

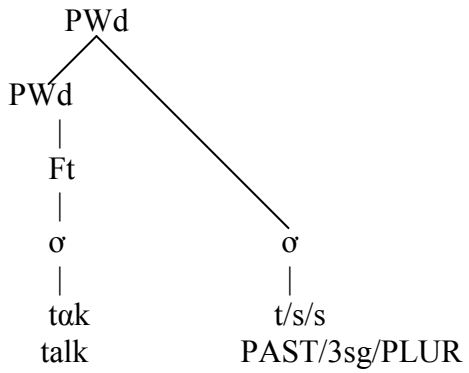
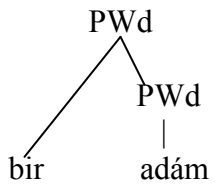


Figure 2.8 Tense and agreement paradigm in English

Now, we can turn to the prosodic representations of Turkish and English articles both at the left edge as presented in the following figure:

(3)

a. Turkish Indefinite Article
Affixal clitic (prefix)



b. English articles:
Free clitics

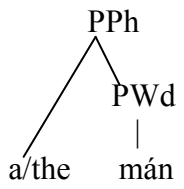


Figure 2.9 The prosodic representations of Turkish and English articles

As seen above, Turkish satisfies its prosodical assignment internal to the PWd in contrast to English, which links its free clitics directly to the phonological phrase. Thus, Goad and White (2004) predict that English L2 learners of Turkish, depending on the L1 variables, will manifest one of the following representations in their interlanguage:

(4)

i. adjunction to PWd,

ii. a PWd internal analysis,

iii. treatment of articles as other stressed determiners by forming one phonological word for each uttered word.

That is to say, the English L2 learners will either get stuck within the phonological constraints of their L1, thus these constraints will result in high rates of omission in the functional morphology of determiners, or they will minimally adapt the features that transfer from their L1 into their L2.

In a recent study conducted by Goad, White and Steele (2003), 12 Mandarin-speaking adult learners of English interlanguage data are studied via elicitation tasks,

one set aimed at eliciting the present 3g – *s* and the other the past tense. They report that the nominative case assignment is provided correctly 100% of the time along with copula *be* (97%) and auxiliary *be* (87%). With respect to suppliance of tense and agreement morphology of lexical verbs, Mandarin speakers show the lowest rate of achievement on 3sg – *s* (28%) followed by regular past (57%) and irregular past (78%). Learners of English acquiring tense agreement morphology may bootstrap their knowledge of syntax into phonology or they can use their knowledge of prosodic structure to bootstrap into the syntax (p. 8). Thus, the prosodic structure employed in irregular past and Mandarin is similar since both inflections incorporate into the PWd.

In another recent study, after a close examination of a fossilised endstate L2 English grammar of SD, whose data reveal that her overall suppliance of verbal morphology (83-84%) is higher than the overall suppliance of the articles (66-68%) Goad and White (2004) attribute the high rate of verbal inflections to the newly constructed prosodic structures, since Turkish PWd and English PWd are different. However, the relatively low rate of suppliance is explained by the learner's minimally adapting her L1 prosodic structure to the L2. It should also be noted that omission rates are lower when the subject is asked to give written responses.

This chapter has been devoted to the discussion of previous literature regarding the development of functional categories in both verbal and nominal domain. In the present study, we analyze child L2 data and test various hypotheses regarding the development of verbal and nominal inflection, for which we have attempted to provide an overview thus far. Before we proceed with the analysis of the data, in the next chapter we first present morphosyntactic properties of English and Turkish under investigation in this study.

CHAPTER 3

MORPHOSYNTACTIC PROPERTIES OF ENGLISH AND TURKISH

3.0 Introduction

This section is dedicated to the discussion of the morphosyntactic properties of English and Turkish. We will focus mainly on the clause structure and DP system in Turkish and English.

3.1. Clause Structure in Turkish

Turkish is an agglutinative language, categorized as head final, which allows scrambling with an underlying word order of SOV both in the main and embedded clauses. Consider the following examples:

1.

(a) Nil edebiyat-ı sev- er-Ø.

Nil literature-acc like-pres-Ø

(b) Siz) Nil'in edebiyatı sev-diği-ni bil-iyor-sunuz.

(You) Nil-gen literature like-gerund-acc know-pres-2sg

'You know that Nil likes literature.'

The verb carries tense and agreement features. Although Turkish is highly agglutinative, it has a strict order of sequence of suffixes. The following utterance would be ungrammatical if the agreement morpheme –*sunuz* and the present suffix -*iyor* is reversed:

2.	*(Siz)	Nil'in	edebiyatı	sev-diği-ni	bil-sunuz-iyor
		Nil-gen	literature	like-gerund-acc	know-2sg-pres.

Next, we will discuss the agreement paradigm in Turkish. Here is the agreement paradigm in Turkish:

3.

(Ben)	iç-iyor-**um**	(I)	drink-present-**1sg**	'I am drinking.'
(Sen)	iç-iyor-**sun**	(You)	drink-present-**2sg**	'You are drinking.'
(O)	iç-iyor-**Ø**	(S/he/It)	drink-present-**3sg**	'S/he/It is drinking.'
(Biz)	iç-iyor-**uz**	(We)	drink-present-**1pl**	'We are drinking.'
(Siz)	iç-iyor-**sunuz**	(You)	drink-present-**2pl**	'You are drinking.'
(Onlar)	iç-iyor-**lar**	(They)	drink-present-**3pl**	'They are drinking.'

Consider the following phrase structure hypothesized for Turkish:

4.

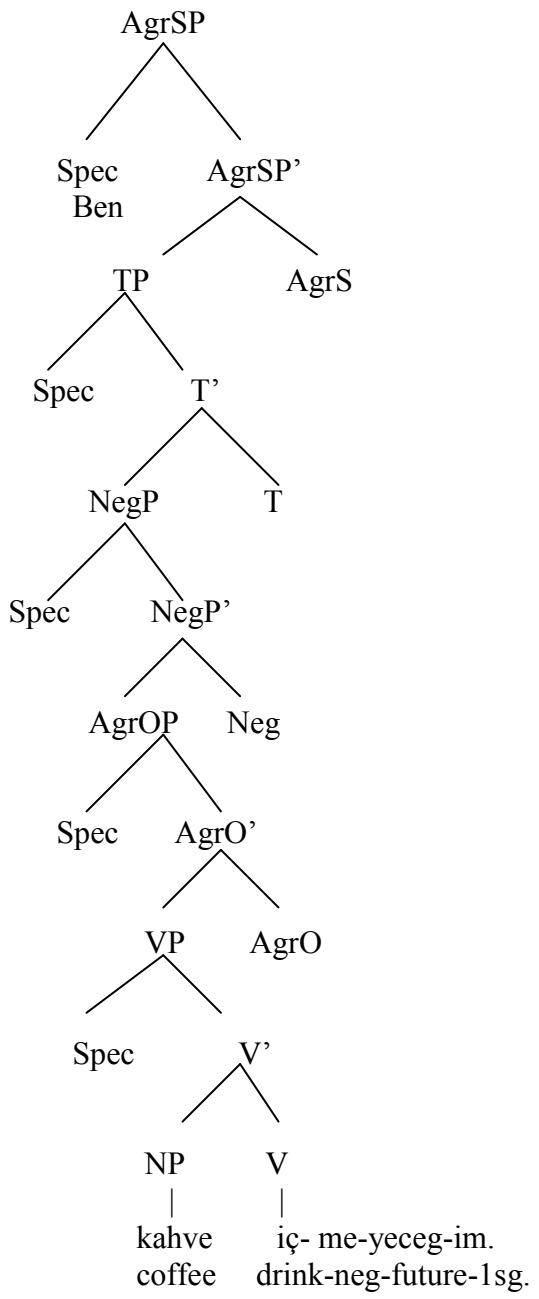


Figure 3.1 Turkish phrase structure

According to the tree structure given (4), the V first raises into AgrO, then to Neg, to the T and finally to AgrS (Kural 1993).

5. (Ben) kahve iç- me-yeceğim

I coffee drink-neg-future-1sg

'I will not drink coffee'.

Turkish also has a free word order that allows scrambling. Consider the following examples:

6.

(a) Nil kitab-ı Merve-ye verdi. Subject-Direct Object-Indirect Object-Verb

' Nil gave the book to Merve.'

(b) Nil Merve'ye kitabı verdi. Sub-IO-DO-V

(c) Kitabı Merve'ye Nil verdi. DO-IO-Sub-V

(d) Kitabı Nil Merve'ye verdi. DO-Sub-IO-V

(e) Merve'ye kitabı Nil verdi. IO-DO-Sub-V

(f) Merve'ye Nil kitabı verdi. IO-Sub-DO-V

(g) Nil verdi kitabı Merve'ye. Sub-V-DO-IO

(h) Kitabı verdi Nil Merve'ye. DO-V-Sub-IO

(i) Merve'ye verdi Nil kitabı. IO-V-Sub-DO

After discussing the morphosyntactic features of Turkish, we move on with the morphosyntactic features of English.

3.2 Clause Structure in English

English is a head initial language with an underlying word order of SVO. Consider the following sentences in (7):

7.

(a) Jane goes to bed early every night.

(b) You know that Jane goes to bed early every night.

Almost all English sentences contain a subject (S) and a verb (V). The verb may or may not be followed by an object (O).The clause structure adopted for English in this study is presented in (8):

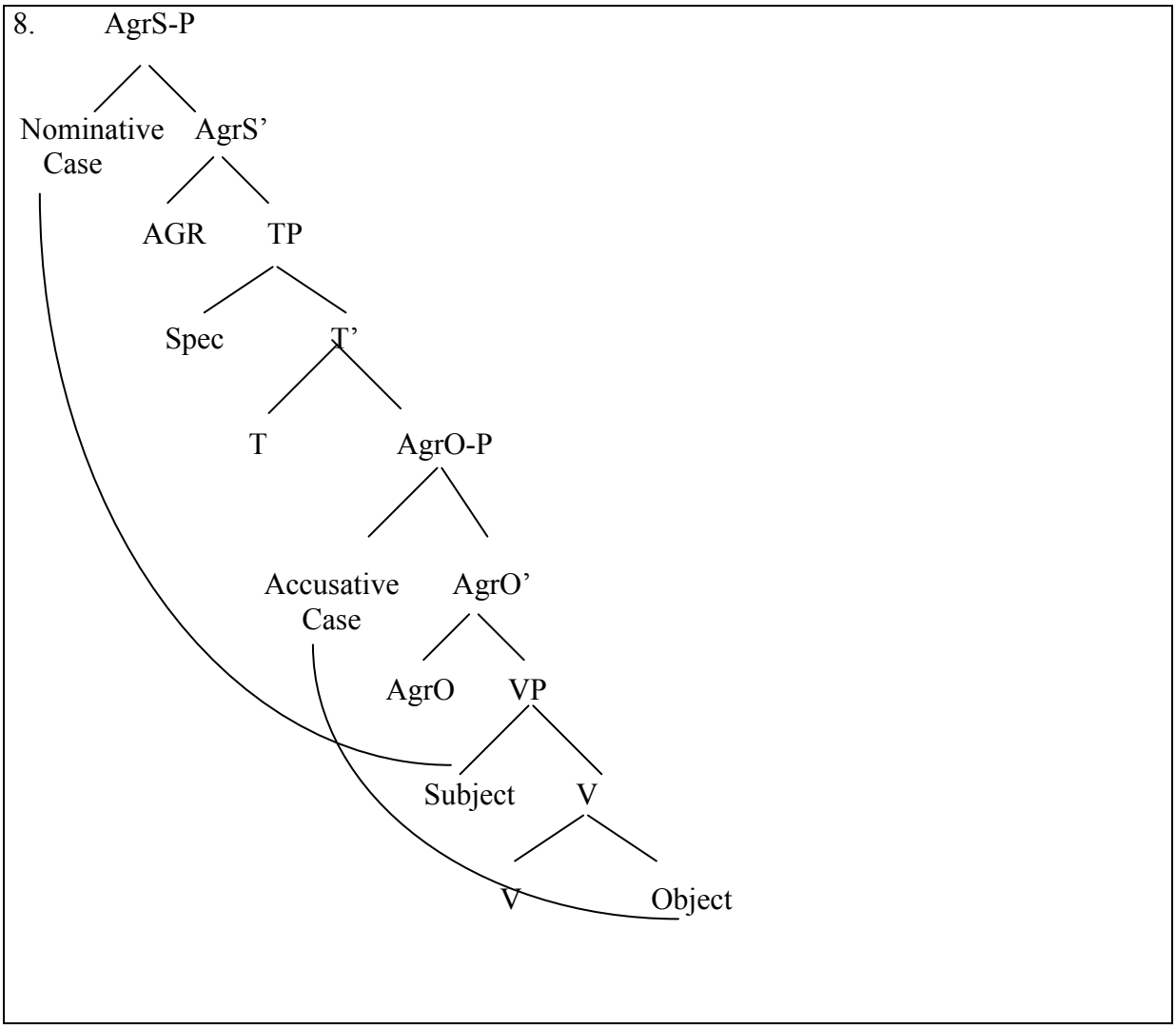


Figure 3.2 English phrase structure

According to the Minimalist Theory objects must be checked for accusative case and subjects for nominative case before the Spell out (Chomsky, 1993).

We move on with the morphosyntactic properties of the Determiner Phrase in Turkish.

3.3 Morphosyntactic Properties of the Determiner Phrase in Turkish

The Determiner Phrase structure in Turkish will be discussed under definiteness versus indefiniteness, specificity and possessive constructions.

3.3.1. Definiteness and Specificity in Turkish

Turkish has no definite article. The numeral *bir* 'one' can be used in indefinite contexts. Kornfilt (1997) considers *bir* to be an article; Underhill (1976) argues that it is a numeral. The function of *bir* as an indefinite article has been questioned (e.g. Öztürk, 2004).While there is no definiteness distinction expressed in terms of determiners (unlike English), Turkish does realize specificity.

The two words in Turkish which are the closest approximations to the articles *'a'* and '*the*' in English are '*o*' = 'that' and '*bir*'= 'one': '*o*', the first person demonstrative, and '*bir*', the unstressed numeral (Tura, 1973).

Word order also affects indefiniteness and definiteness in Turkish. Consider the following examples:

9.

(a) Çocuk yerde yatıyordu.

Child on ground lying

'The child was lying on the ground.'

(b) Yerde çocuk yatıyordu.

On ground child lying

'On the ground a child was lying.'

(Tura, 1973: 102)

On similar grounds, Erguvanlı (1984) states that stress also plays a role in the definite or indefinite readings of an NP when the word order strategy fails to show the definiteness and indefiniteness. Subject NPs in the nominative case are interpreted as definite and indefinite according to their position in the sentence and the context in which they are uttered. If an NP is uttered as a sentence-initial subject, it typically has [+ definite] reading, whereas if the NP is a preverbal subject it often has [-definite] reading. Consider the following examples:

10.

(a) Çocuk o oda-dá uyu-yor. (sentence initial subject/ definite)

Child that room-loc sleep-prog

'The child is sleeping in that room.'

(b) O oda-da çocúk uyu-yor. (preverbal subject/ indefinite)

That room-loc child sleep-prog

'A (some) child is sleeping in that room.'

(Erguvanlı, 1984: 129)

Subject NPs with possessive and deictic terms also carry definite and referential interpretation in non-modal contexts. Consider the following example:

11.

Şu öğrenci sen-i bekli-yor.

That student youACC waitPROG

'That student is waiting for you.'

(Dede, 1986: 150)

However, if *bir* 'a, one' precedes the possessive construction the subject NP will have an indefinite but referential meaning. Consider the following example:

12.

Bir arkadaş-ın sen-i bekli-yor.

A friend 2SG:POSS youACC waitPROG

'A friend of yours is waiting for you.'

(Dede, 1986: 150)

The accusative case ending is also obligatorily used with indefinite object NPs, which have a possessive suffix as in the following example:

13.

Bir kitab-ı-mı kaybet-ti-m.

a book1SG:POSS ACC losePAST 1SG

'I lost one of my books.'

(Dede, 1986: 158)

As in English, Turkish classifies three uses of noun: generic ('Man is mortal'), definite ('The man was late') and indefinite ('A man is at the door'). However, when a noun is the subject of a sentence, there is no grammatical

distinction between the generic and definite uses since Turkish does not have a definite article corresponding to English '*the*' (Underhill, 1976: 38).

Consider the following examples:

14. Arılar çalışkandır. 'Bees are hardworking.'
'The bees are hardworking.'

15. Küçük çocuklar yaramazdır. 'Small children are naughty.'
'The small children are naughty.'
(adapted from Underhill, 1976)

Corresponding to 'a' the word 'one' is frequently found in indefinite uses:

16. Bir kuş açtır. 'A bird is hungry.'
(adapted from Underhill, 1976)

However, there are many uses of 'a' where Turkish does not use 'bir'. In, English when a noun phrase is used as the predicate of a sentence, to use the article 'a' is obligatory, as given in (17):

17. Ali is a driver.

However, in Turkish, the omission of 'bir' and the use of the noun alone are common:

18. Ali şofördür. 'Ali is a driver.'

If ‘bir’ is included, it places either a favorable or an unfavorable emphasis on the statement. In the preceding sentence, it underscores the fact that he is a driver but nothing else; if ‘driver’ is considered to be a lowly profession; it means ‘he is a driver’ and nothing more.

19. Ali bir şofördür. ‘Ali is (just) a driver.’

Compare the following also:

20. Ben insanım. ‘I’m a human-being.’
Ben bir insanım.

(Underhill, 1976)

The first utterance simply means ‘I’m a human-being’, the second one however, emphasizes the fact that I’m a human-being, not an animal. If the noun phrase includes an adjective, here it is normal to include ‘*bir*’ even though it might be omitted:

21. Ben büyük bir adamım. ‘I’m a big man.’
Ben büyük adamım.

According to Enç (1991), in Turkish, case marking determines the specificity of an NP. If the NP bears the accusative case morpheme –(y)i, it is obligatorily

interpreted as specific as in (22). If the NP does not carry case morphology, it is obligatorily interpreted as nonspecific, as in (23).

22. Ali bir piyano-yu kiralamak istiyor.
Ali one piano-Acc to rent wants
'Ali wants to rent a certain piano.'

23. Ali bir piyano kiralamak istiyor.
'Ali wants to rent a (nonspecific) piano.'

(Enç, 1991)

Turkish has an adjective similar to *certain.* As shown in the following example the NP containing this adjective '*belli'* requires accusative case:

24. Her antrenör belli bir atlet-i /*atlet çalıştıracak.
every trainer certain one athlete-Acc will-train
'Every trainer will train a certain athlete.'

The obligatoriness of accusative case indicates that NPs with adjectives such as *certain* are specific.

3.3.2 Possessive Constructions in Turkish

Kornfilt (1977) classifies Turkish possessive constructions as phrasal and clausal constructions. The possessive noun phrase takes the possessed element as the head of the phrase and the possessor is assigned the genitive case. The possessed

element takes the possessor agreement suffix agreeing with the possessor both in person and number (Kornfilt, 1977: 185).

Consider the following examples:

25.

(a) (Ben) [Nil-in şiir- in] -i dinle -di-m.

I Nil-gen poem-3sg -Acc listen-past-1sg.

(b) (Siz) [(biz-im) şiir-imiz]-i dinle-di-niz mi?

(You) we-gen poem-1pl-acc listen-past-2pl -Q

Clausal possessive constructions on the other hand, correspond to the English 'to have'. Consider the following example:

26. Merve-nin çok eski bir arabası var.

Merve-gen very old a car exist.

'Merve has a very old car.'

As can be seen in (25) and (26), the genitive suffix is – (n) ın. The genitive forms of the pronouns are as follows:

27.

(a) benim my

(b) senin your

(c) onun his/her/its

(d) bizim our

(e) sizin your

(f) onların their

The possessive suffixes are presented in (28):

28.

(a) benim tez-im my thesis

(b) senin tez-in your thesis

(c) onun tez-i his/her thesis

(d) bizim tez-imiz our theses

(e) sizin tez-iniz your theses

(f) onların tez-leri their theses

A noun phrase construction in the form of noun+noun –possessive suffix (N+N-Poss) is one of the word forming processes in Turkish. It is used to name an entity for which the language does not contain a monomorphemic word. Consider the following examples:

29. kadın doctor -u ‘(a) gynecologist’

N N -Poss

30. kadın-ın doctor-u ‘the woman’s doctor’

N -Gen N -Poss

Apart from the first two possessive constructions, the third kind of a compound structure with possessives indicates some kind of material as given in the example below:

31. Yoğurt tatlı-sı ‘sweet made of yoghurt’

-Poss

But not;

Tatlı yoğurttur. ‘The dessert is yoghurt.’

(Dede, 1982)

Turkish possessive structure and the definiteness and specificity marking are discussed in the section above. Now, we continue with the morphosyntactic properties of determiner phrase in English.

3.4. Morphosynactic Properties of the Determiner Phrase in English

In this study, in regard to the morphosyntactic properties of the English determiner, we will focus only on the article system and the possessive constructions.

3.4.1 Definiteness and Specificity in English

In English ‘*the*’ and ‘*a*’ determine definiteness. ‘*A*’ can be used as a quantifier, a numeral with indefinite singular count nouns. In fact the distinction between definiteness and indefiniteness is not between ‘*the*’ and ‘*a*’, but is indeed between ‘*the*’, ‘*Ø’* and ‘*a*’ being a surface variant of Ø with singular count nouns. Consider the following examples:

32.

(a) I wanted the money.

(b) I wanted the book.

(c) I wanted the money.

33.

(a) I want money.

(b) I want books.

(c) I want a book.

(adapted from Tura,1973; 17)

The noun phrases (32) a, b and c are definite, on the other hand the ones in (33) (a-c) are all indefinites, *Ø* being replaced with '*a*' in the case of the singular count nouns. Now, let us focus on the formal and informal definitions of definiteness.

Definiteness: A DP is definite if its referent is known to both speaker and hearer, and is unique in the contextually relevant domain. Otherwise, the DP is indefinite.

Definite: I read a book. The book was interesting.

Indefinite: I read a book yesterday.

(Fodor and Sag, 1982)

Specificity: An indefinite DP is specific if the speaker has its referent "in mind" and intends to refer to it. Otherwise, the DP is non-specific.

(Fodor and Sag, 1982)

Specific indefinite: I read an interesting book which my cousin gave me.

Non-specific indefinite: Mary read a book (but I do not know which one).

If a DP of the form [D NP] is [+ definite], the speaker assumes that the hearer shares the speaker's presuppositions of the existence of a unique individual in the set denoted by the NP.

If a DP of the form [D NP] is [+ specific], the speaker intends to refer to a unique individual in the set denoted by the NP, and considers this individual to possess some noteworthy property.

[+specific] indefinites: I'm visiting a friend from college- his name is Sam Brown, and he lives in Cambridge now.

[-specific] indefinites: I don't really know [where Jonathan is]. He's staying with a friend- but he didn't tell me who that is. He didn't leave me any phone number and address.

[+specific] definites: I would like to meet the author of that book some day- I saw an interview with her on TV, and I really liked her!

[-specific] definites: I would like to meet the author of that painting- unfortunately, I have no idea who it is, since the painting is not signed.

(Ionin et al., 2003)

It is also commonly assumed that languages such as English make use of such adjectives like *certain*, *specific* and *particular* to express specificity. Indefinites without such adjectives (for example, a cactus, one chair, three flowers) can generally be interpreted as either specific or non-specific. The examples below contain specific indefinites especially due to the use of the adjective 'certain'.

Consider the following examples:

34.

(a) Sally wants to own a certain horse which used to belong to a famous businessman.

(b) Jim must speak to a particular surgeon who operated on his father.

(adapted from Enç, 1991)

3.4.2 Possessive Constructions in English

DP projection in English is given in (35) (see Abney, 1987):

35.

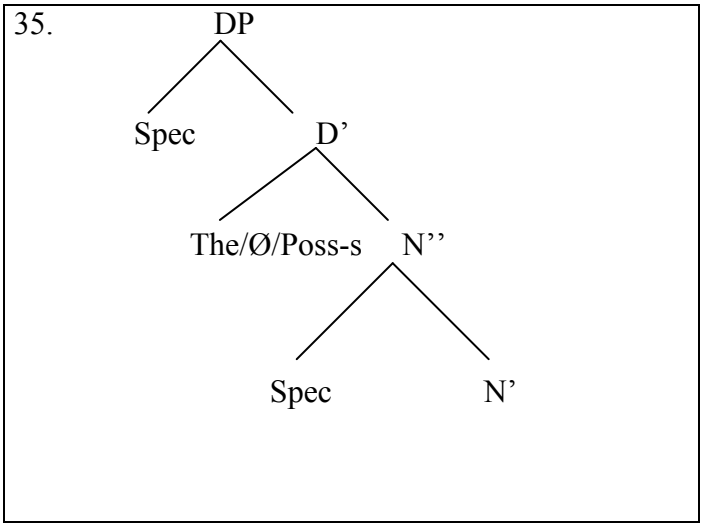


Figure 3.3 DP projection in English

Unlike Turkish, English only uses possessive constructions at the phrase level within the DP structure. It uses genitive '*s*' both in the subject and the object position. Consider the following examples:

36.

(a) Jane's toy is broken.

(b) I forgot to water Jane's flowers.

The following tree diagrams present the structure for definite 'the' and indefinite 'a' respectively.

37.

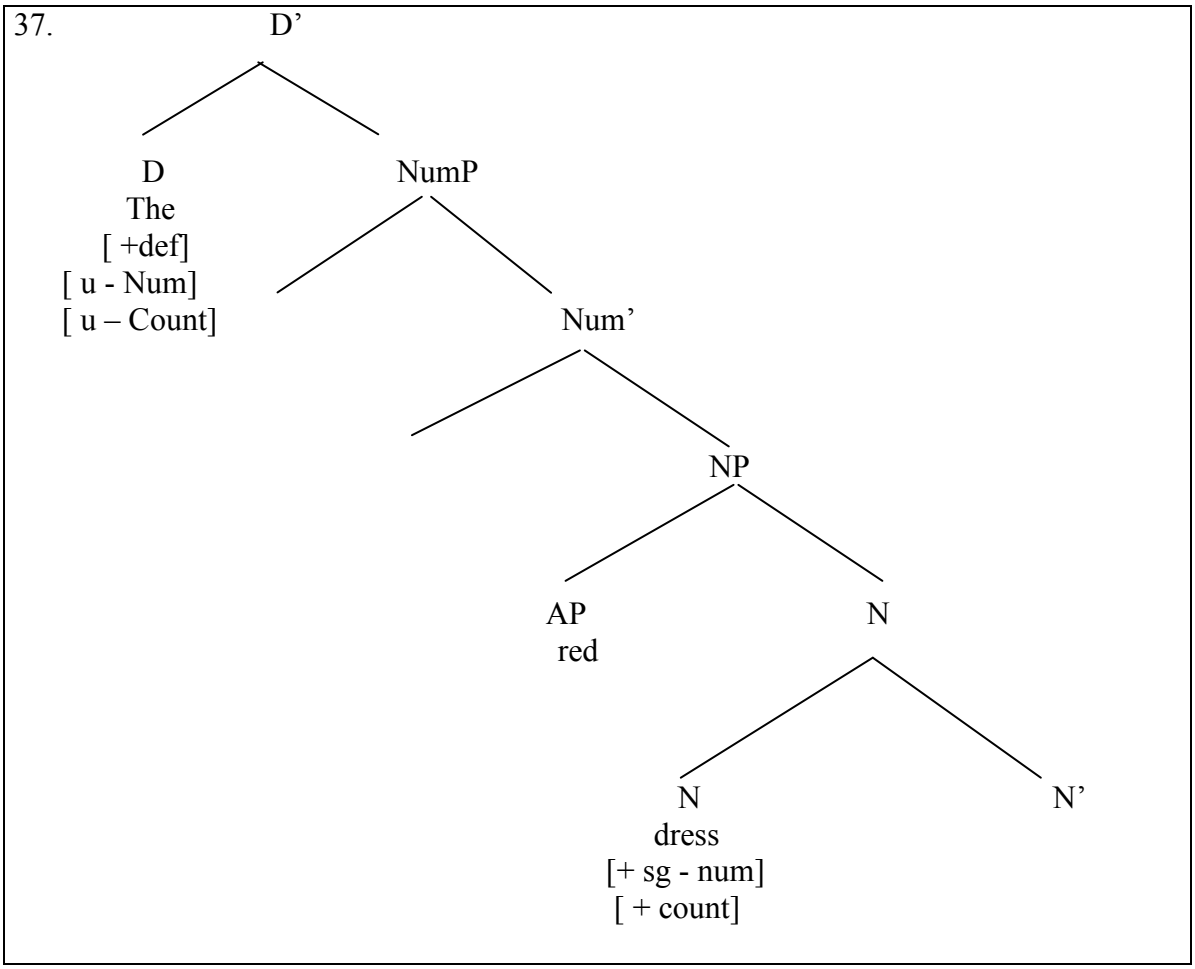


Figure 3.4 The tree structure of the English definite article

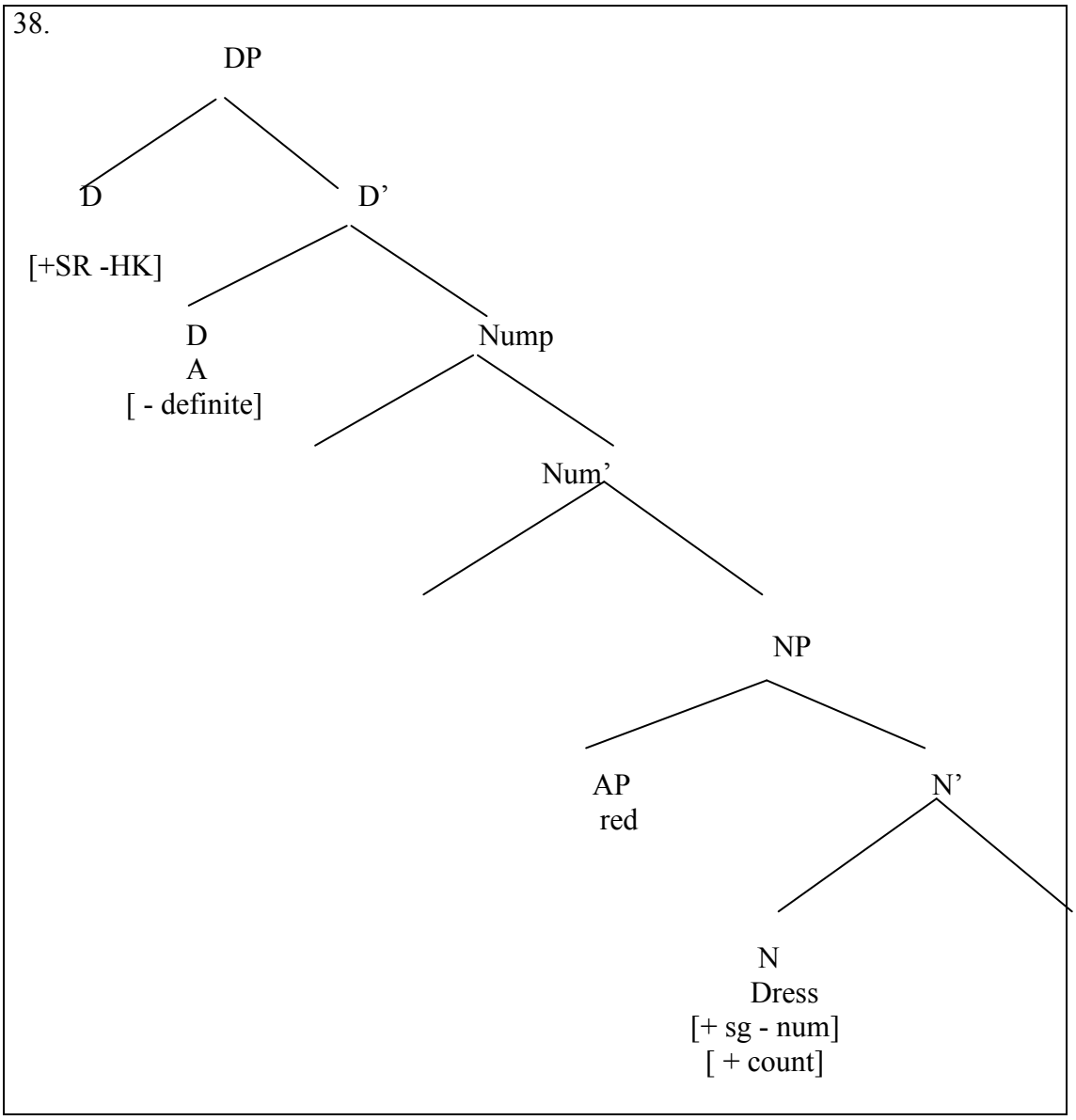


Figure 3.5 The tree structure of the English indefinite article

In the tree structures 37 and 38, definiteness is marked under the head D and the noun is checked for number and countability.

After discussing the morphosyntactic features of English and Turkish, the next chapter presents the methodology and the analysis of the data obtained.

CHAPTER 4

METHODOLOGY

4.0. Introduction

The following chapter is organized as follows: First, we start with the research questions regarding the acquisition of inflectional phrase (IP) and determiner phrase (DP). Verbal inflection will be examined in terms of suppletive (copula *be* and auxiliary *be)* versus affixal morphology (3sg *–s,* past tense forms) in this study. And then we present the methodology used in the analysis of the data and finally, we conclude with a discussion.

4.1. Research Questions

The following research questions will be addressed in the acquisition of functional categories in child L2 English:

1. Are functional categories (regarding the IP and DP related elements) fully accessible to child L2 learners of English?
2. Do the child L2 learners of English go through the Optional Infinitive Stage?
3. Do the child learners of English as an L2 mark "*the*" better than "*a*"?
4. Are the learners' errors in the use of "*a/an*" and "*the*" systematic or random?
5. What determines article choice in second language (L2) acquisition?

4.2. The Subjects of This Study

4.2.1. Data Collection

The subjects of the study were chosen after a long selection process among the children of the different international schools in Istanbul, Turkey. The permission of both the parents and the school administration was taken since data collection took place in the school. The subjects were similar in terms of their exposure to English and family backgrounds, and in addition, they were in the same reception class, taking English instruction for about six hours everyday.

Data were collected over a period of six to seven months from three girls: Nil, Ayda and Elif; 19, 22 and 17 samples were obtained, respectively. Their first exposure to English was at around age 3; 5. Data collection from Ayda and Elif started in December 2004, whereas it started in January 2005 with Nil. Data collection from all three subjects lasted until the last week of June 2005. Three to four sessions of on to two hours of data collection sessions per month during playing time were held with the subjects individually. None of the three children had reported speech, hearing or language disorders. All the sessions were audio taped accompanied by the notes of the investigator at the time of recording. All the subjects of this study attended kindergarten in an international school in Istanbul, Turkey, where they were exposed to minimum six hours of English in a class of 12 other children of different nationalities.

Data consisted of spontaneous production resulting from daily conversations about their friends, family and school, and picture elicitation tasks via reading and picture books. Tasks were organized based on the suggestions in Crain and Thornton

(1998). The subjects of the study are all from upper middle class families and all of their parents are university graduates.

Nil was 4 years 11 months old at the onset of the study, she was the only child of an upper middle class family and she was at the age of about 4; 0, at the time when I started data collection. A total of 19 samples were collected from her.

Ayda was 4 years 7 months old at the onset of the study and she too was the only child of an upper middle class family. Ayda's corpus consists of a total of 22 samples.

Elif was 4 years 6 months old at the onset of the study and she was the elder of two children of a Turkish upper middle class family. Due to a serious illness, she was absent from school for five weeks during the data collection period. Towards the end of May, Elif started to read in English. Elif's total number of samples collected and used is 17.

4.2.2. Data Transcription and Data Coding

Data collection, coding and transcription were done by the investigator herself, so special attention was paid to transcribing the data soon after they were collected, which was most likely to eliminate any problems associated with contextual matters. Following CHILDES conventions (MacWhinney and Snow, 1990), I developed my own codes for morphsyntax based on the CHAT coding system. In this study, I coded the transcripts for the use of the following items in obligatory contexts: as verbal domain: *copula be, auxiliary be*, subject-verb agreement (*3 sg-s*), irregular and regular tense marking, overt subjects, nominative subjects pronouns and as nominal domain: definite and indefinite articles, genitive possessive *'s* and possessive pronouns.

4.2.3 The Subjects' L1 Turkish at the Onset of the Study

Since the parents of the subjects were Turkish, the language spoken at home was Turkish. At the time of the study the children had a full command of Turkish, producing complex grammatical constructions such as causatives, passives and relative clauses. Before, during and after the study, no Turkish data were collected, only the Turkish conversations of the subjects between their Turkish peers were noted.

4.3. Analysis of the Data

4.3.1 IP- Related Elements in the Subjects' L2 English

This section is discussed under three sub-headings. First, utterances with the verb *be* (either as a *copula* or an *auxiliary*) are discussed. Second, overt subjects and nominative pronouns are analyzed. Finally, the utterances of verb inflections based on data from *3sg –s* and regular/irregular past forms are discussed. With respect to the use of *be* both as *copula be* and *auxiliary be*, we assume that in both cases *be* is related to INFL, and for that reason, the distinction between them is not a point of concern in this study.

4.3.1.1. Copula *be*

The development of *copula be* is investigated under four divisions; the correct use of *copula be*, the missing *copula be*, the faulty use of *copula be* and the use of uninflected '*be*' in the place of *copula be.*

When data regarding *copula be* are analyzed, it is seen that in the earlier samples the correct use of *copula be* is less in percentage. At the time of first recordings, *copula be* is among the first forms to appear. Starting with the very first utterances none of the utterances are unanalyzed chunks.

Method

In the analysis of *copula be*, utterances of the correct use are counted in obligatory past and present contexts. Here is the formula:

$$\frac{\mathbf{X}}{\mathbf{X+Y+Z+B}}$$

X is the number of the *copula be* produced in obligatory past and present tense contexts.

Y is the number of the cases where the *copula be* form in an obligatory context is not produced.

Z is the number where we counted the faulty use of *copula be* especially where the subjects switched to the past tense use even when the obligatory context required the present tense or vice versa.

Consider the following example of faulty use of *copula be:*

1. **Nil**: And when the teddy bear climb up to the cage # and the rabbit ran away from the… no said grandma # no said daddy.

   Investigator: Why?

   Nil: Because it was the lunchtime.

   Investigator: Why?

   Nil: Because they'**re** angry to eat our lunch. (S9 Apr 6)

2. **Ayda**: It **was** a long time ago.

   Investigator: You were very little then but you remember pandas.

   Ayda: Yeah # no # I was not little # I go little # and there **is** a giraffe # and I # I give a food to the giraffe. (S8 Mar 29)

3. **Investigator**: What happened to Amy?

   Elif: They**'re** afraid.

   (She means Amy and her family.) (S4 Feb 14)

B is the number of the cases where two of the subjects, Elif and Ayda used the uninflected form of the '*be*' in the obligatory contexts. Consider the following examples:

4. **Investigator**: Look, what happened in the end?

   Ayda: And that boy can swim.

   Investigator: Why?

   Ayda: Because that boy's swimming and that boy **be** happy.

   Investigator: Why?

Ayda: Because that boy is happy to swim.

(S10 Mar 15)

5. **Elif:** The clever cat want a note # they see a bed # they **be** hedgehogs.

(S9 Apr 29)

In this section, we will focus on the development of *copula be* over the corpora of Nil, Ayda and Elif, successively.

Nil's 'Copula be' Development

Figure 4.1 presents the development of copula *be* in Nil's interlanguage through Samples 1-19.

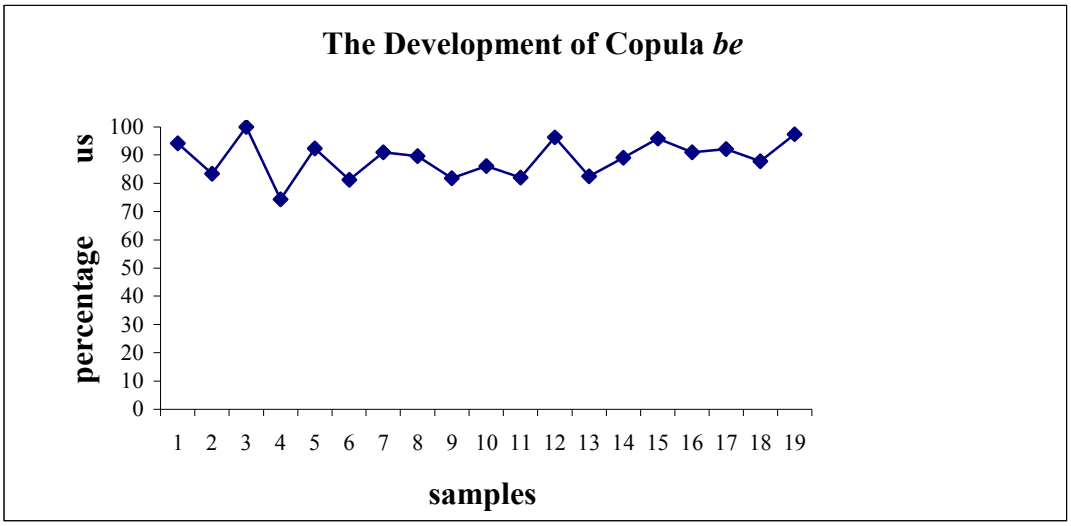


Figure 4.1 The development of copula *be* (Nil)

When Nil's interlanguage grammar is analyzed we see that there are 914 (89.52%) correctly used and 23 (2.35%) missing *copula be* utterances among a total number of 1021 obligatory contexts. From Sample 4 onwards there are high occurrences of *copula be* in obligatory contexts (see also Appendix A-1). Consider the following examples in 6:

6.

(a)	I**'m** very tired today.	(S5 Feb 18)
(b)	Because he**'s** angry so much.	(S6 Feb 25)
(c)	Sonic **is** a hedgehog.	(S7 Mar 15)
(d)	Because they **are** so sleepy.	(S7 Mar 15)
(e)	The grandma, where **is** the cat?	(S7 Mar 15)
(f)	Because he**'s** dead.	(S8 Mar 29)
(g)	But this **is not** my.	(S10 Apr12)
(h)	I'**m not** small.	(S12May3)
(i)	The sun **was** a little.	(S12 May 3)
(j)	And once upon a time the baby snail **was not** scared.	(S12 May 3)
(k)	Where **is** shiny purple?	(S15 May24)
(l)	What **are** these colors?	(S15 May 24)
(m)	Which one **was** the sister?	(S16May 31)

As can seen from the examples the child uses *copula be* correctly and productively in both the affirmative and negated as well as *wh*- questions in both present and past contexts. It should be noted that Nil is able to use both contracted and uncontracted forms as in (6.c, f, g).

We also found an unexpected phenomenon in the data: the overgeneralization of *'be'*, which was also observed in Ionin and Wexler (2002).

Consider the following examples:

7.

(a)	She**'s** like to buy glasses.	(S4 Feb 14)
(b)	She**'s** know something.	(S6 Feb 25)

(c) How **are** you feel? (S6 Feb 25)

(d) She**'s** loves the sea. (S7 Mar 15)

(e) You **were** tell me that. (S17 Jun 7)

(f) She doesn't know where she **is** go. (S19 Jun 22)

There were 25 such instances in Nil's interlanguage out of 1021 obligatory contexts. Some of these seemingly generalizations were due to the omission of the modal 'gonna' and some were used in the place of auxiliary 'do' or modal 'would'.

However, when we examine the development of copula *be* with different subjects, except for five utterances in the whole corpus, subject-verb agreement morphology was used correctly in the data.

Next we discuss the development of *copula be* in Ayda's interlanguage.

Ayda's 'Copula be' Development

Figure 4.2 presents the development of *copula be* in Ayda's interlanguage through Samples 1-22.

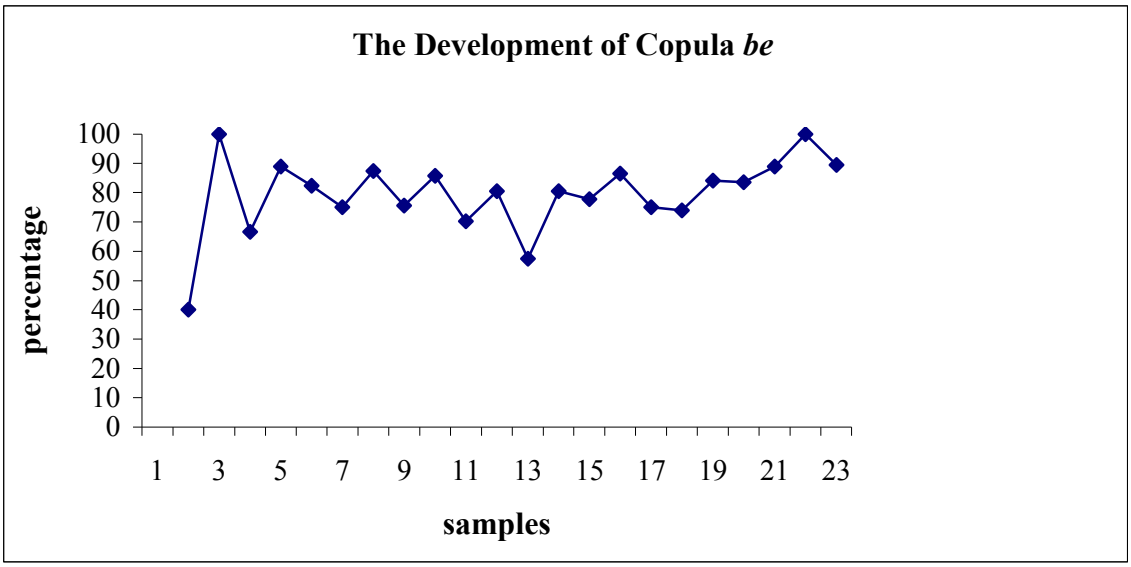


Figure 4.2 The development of copula *be* (Ayda)

Ayda has 802 (81.1%) correctly inflected and 76 (7.7%) missing *copula be* utterances among a total number of 988 obligatory contexts. From Sample 3 onwards the occurrences of *copula be* are higher than 70% in obligatory contexts (see also Appendix A-2).

Consider the following examples:

8.

(a)	I'**m** wet.	(S8 Febr 25)
(b)	It**'s** her hat.	(S9 Mar 8)
(c)	The dog **was** in the mud.	(S11 Mar 22)
(d)	I **was** all day in the bed.	(S13 Apr 6)
(e)	Which one **is** your favorite?	(S18 May 24)

Yet when we examine Sample 12, the omission of *copula be* is rather high; there are 13 missing *copula be* instances out of a total of 40 obligatory contexts and that brings about a decline to 67.13% of suppliance which is the second lowest percentage after the first sample.

We also found 25 overgeneralized *copula be* in Ayda's interlanguage as well. Consider the following:

9.

(a)	Helen **is** woke up.	(S5 Jan 27)
(b)	The boy **is** not swim.	(S10 Mar 15)
(c)	It**'s** look like a girl.	(S14 Apr 12)
(d)	They'**re** have a dance.	(S17 May 17)

(e) **Ayda:** Look like me # I'**m** funny #Oh# I look funny # Look at me I'**m** look funny #Look at me # I'm funny as well.

Investigator: What are you doing?

Ayda: I want to be funny as well # Look at me. (S22 June 22)

We were able to start collecting data with Ayda the earliest, that is why we were in a way closer to her initial stage of *copula be* utterances, which might explain the relatively higher percentage of missing copula *be* (see Appendix A-2).

Finally, we focus on the development of copula *be* in Elif's L2 English.

Elif's 'Copula be' Development

Figure 4.3 presents the development of *copula be* in Elif's interlanguage through Samples 1-17.

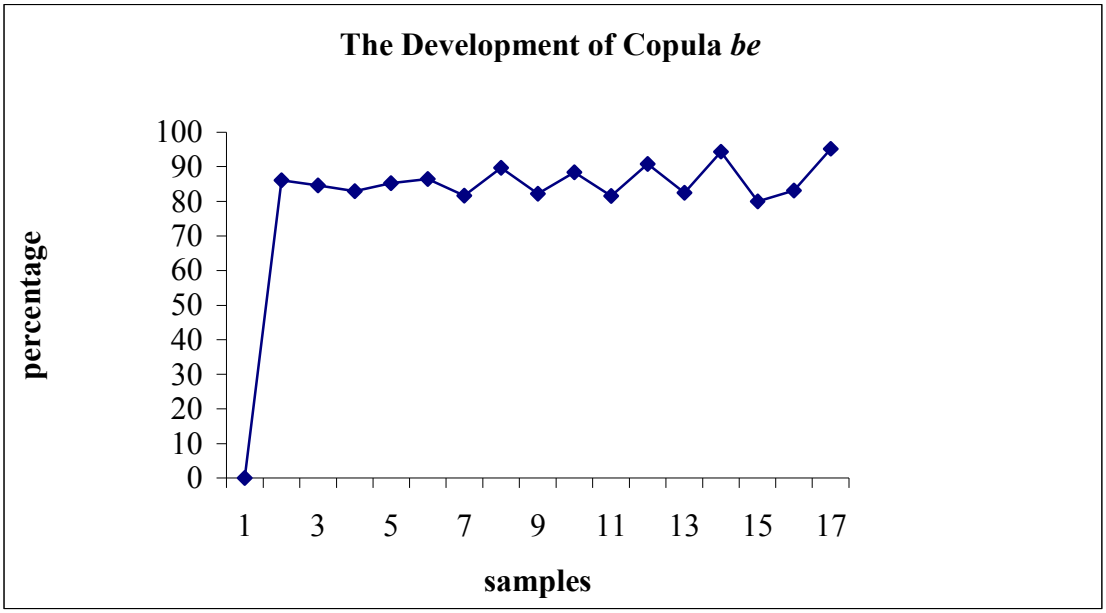


Figure 4.3 The development of copula *be* (Elif)

Finally, Elif has 752 correctly inflected *copula be* utterances out of her total 855 obligatory contexts. At the onset of the study if we disregard the first sample where there were no copula contexts, she started off with a suppliance percentage of 97.22% (35/1)

and ended with 100% (see Appendix A-3). She had 26 instances with the missing *copula be.* This shows that *copula be* is acquired rather early, which suggests that an INFL-related category should be available to the learner.

Consider the following examples in 10:

10.

(a) I**'m** a children. (S6 Mar 8)

(b) Whose **is** that? (S6 Mar 8)

(c) What'**s** up mouse? (S7 Mar 15)

(d) Garfield's friends **are** happy. (S7 Mar 15)

(e) Once upon a time there **were** three girls looking at the giant's house. (S9 Apr 29)

(f) Nil **was** scared of the giant? (S9 Apr 29)

(g) But this **isn't** cute. (S14 June 1)

(h) But they'**re not** big circles. (S16 June 14)

The overgeneralized *copula be* utterances in Elif's interlanguage are considerably less when compared with Nil's (25/1046) and Ayda's (25/1013) corpora. There are six such utterances out of 861 contexts.

Consider the following examples:

11.

(a) Amy **is** not take off her clothes. (S4 Jan 26)

(b) Now the birdie **is** like to eat. (S6 Mar 8)

(c) The Garfield **is** rest. (S7 Mar 15)

(d) That'**s** makes you germs. (S13 May 24)

(e) This one **is** growed up. (S16 June 14)

(f) Jack **is** marry. (S17 June 24)

Finally, we present the development of the *copula be* over three corpora as a whole.

Nil's, Ayda's and Elif's 'Copula be' development

Figure 4.4 presents the developmental suppliance of *copula be* in the interlanguage of Nil, Ayda and Elif through Samples 1-22.

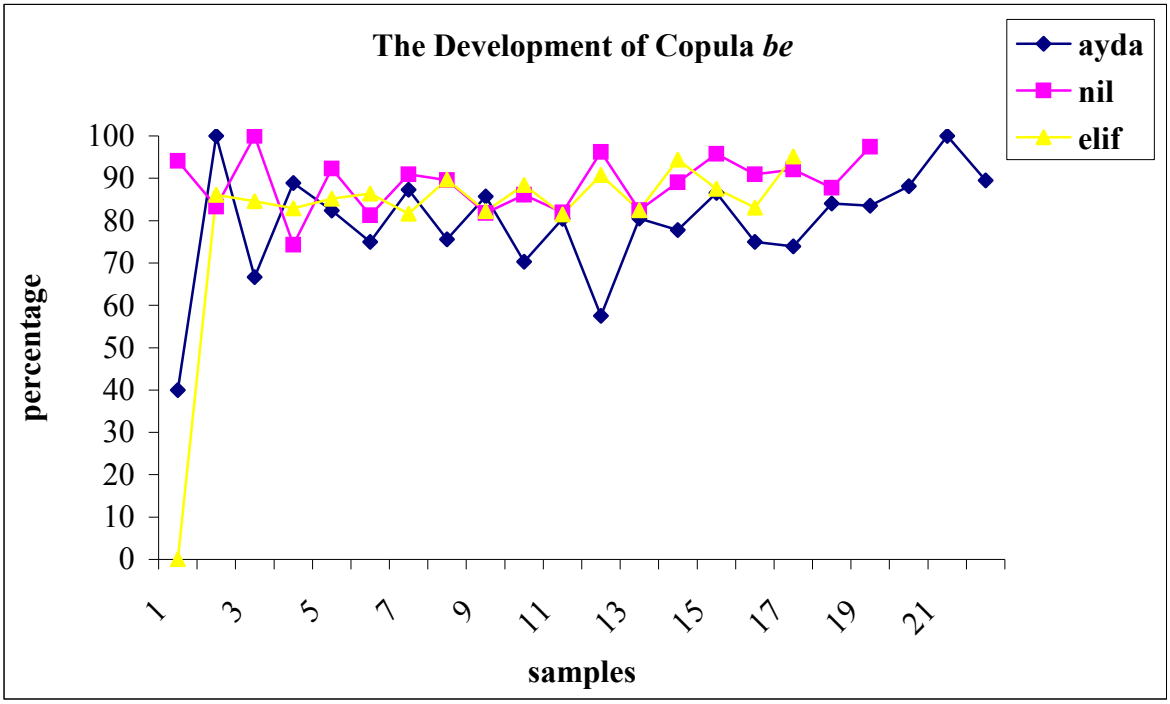


Figure 4.4 The developmental suppliance of copula *be*

In the first three samples, the less percentage of the correct use of *copula be* is related to the limited context in that the subjects did not need to use the copula form. Since

the total percentage of the use of faulty *copula be* and *'be'* do not constitute more than 8% and 2.3%, respectively, we do not want to extend our discussion on their use.

The total percentage of the faulty use and the correctly used forms corresponding to the supplied percentage of the copula *be* in obligatory contexts within all the corpora exceeds 90%. As can be seen in Figure 4.4, it can be concluded that although the suppliance of *copula be* is above 90%, which can be viewed as the *copula be* being acquired and used productively (Brown, 1970), its development in Elif's and Nil's interlanguage goes hand in hand. However, Ayda seems to be following Nil and Elif in the correct use of the *copula be* even though the difference is not huge. This difference can be due to individual differences (Richards and Robinson, 1993).

Consider the following table, which compares the suppliance and omission rates of the three children.

Table 4.1 Suppliance and Omission of Copula *be*

	# *copula be* utterances	# missing *copula be* utterances	Total	*copula be%*	missing *copula be%*
Nil	997	24	1021	97.65%	2.35%
Ayda	912	76	988	92.31%	7.69%
Elif	829	26	855	96.96%	3.04%

Although early work in the acquisition of copula indicates that the full emergence of copula *be* is acquired later (Brown, 1973; Hyams, 1986; Wilson, 2003) in the acquisition of child L2 English, it has been found in a series of studies that *copula be* is acquired early (Lakshmanan, 1993/1994; Haznedar, 1997; Ionin and Wexler, 2002, among many others). Thus, the high instances of *copula be* in this study and among all the three subjects is compatible with the findings in the literature.

Haznedar (2001) reports that Erdem's suppliance of *copula be* is 96.43% (2296/2381) in obligatory contexts. When Erdem's suppliance of *copula be* is compared

with the subjects of the present study, it can be concluded that all four subjects had similar percentages of suppliance of the *copula be* with a percentage of more than 92%.

One of the predictions of Wexler (1996) regarding the stage of Optional Infinitives was the optionality in the use of *copula be.* However, we see that all the subjects in the present study supplied *copula be* higher than 95%.

4.3.1.2. Auxiliary *be*

Verb-ing forms are considered to be the first verbal inflection in early English (Brown, 1973; de Villiers & de Villiers, 1973; Kuczaj, 1978). As the second INFL- related element the occurrences of *auxiliary be* in obligatory contexts are examined across the data.

Method

Present progressives are defined as clauses with *–ing* on the verb which have progressive reference in a given context. These were coded for the presence or absence of the auxiliary. In parallel with the procedure used in the analysis of the distribution of the *copula be*, utterances of correct use are counted in the obligatory past and present contexts. However, there are also some counts of faulty uses within the corpora so they are counted separately. Here is the formula:

$$\frac{\mathbf{X}}{\mathbf{X+Y+Z}}$$

X is the number of the *auxiliary be* produced in obligatory past and present tense contexts.

Y is the number of the cases where the *auxiliary be* form in an obligatory context is not produced.

Z is the number where we counted faulty use of *auxiliary be* especially where the subjects switched to the past tense use even the obligatory context required the present tense or vice versa.

However, in my discussion, I will focus mainly on the suppliance and omission of target utterances, since we find few instances of faulty use similar to the findings reported in the literature (e.g. Gavruseva and Lardiere, 1996).

We start with the development of the auxiliary *be* in Nil's interlanguage first.

Nil's "Auxiliary be" Development

Figure 4.5 shows the development of *auxiliary be* in Samples 1-19 in Nil's corpus.

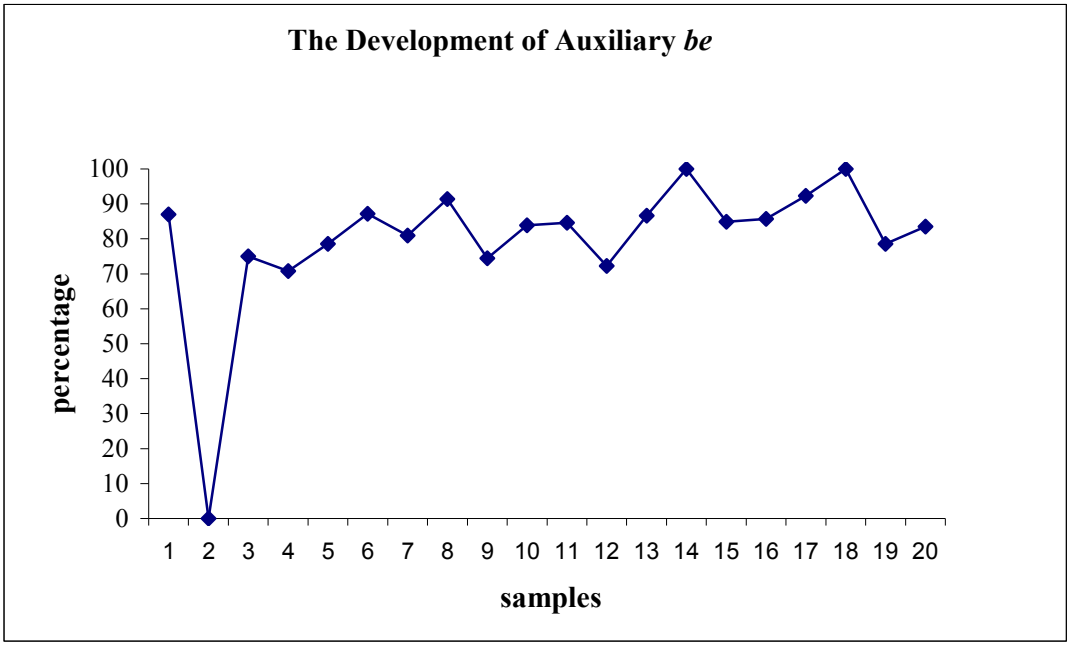


Figure 4.5 The development of auxiliary *be* (Nil)

Sample 2 can be somewhat misleading since there are only two obligatory contexts of *auxiliary be* and in both contexts *auxiliary be* are missing in the subject's production. Among the 19 samples, out of 479 obligatory contexts, there are 400 (83.51%) instances of supplied *auxiliary be* with 79 (16.49%) missing *auxiliary be*.

Consider the following examples:

12.

(a) **The investigator**: Ok what's she doing?

Nil: She **is dropping** the milk. (S6 Feb 25)

(b) The chicken **was going** to the park # and the fox eat the chicken.

(S7 Mar 15)

(c) **Investigator**: What was wrong with the cat here?

Nil: The cat wake up # He **was sleeping** # and the cat scratch.

(S8 Mar 29)

(d) Ratty **washing** her face. (S9 Apr 9)

(e) Because I **choosing** you out. (S9 Apr 9)

Interestingly, within the same corpus, there are two stative verbs, which are used in the progressive form in four utterances. Consider the following examples where the context requires the use of the simple present tense:

13.

(a) *She'**s loving.** (S1 Jan 6)

(b) *She'**s having** no one. (S4 Feb 14)

(c) *She **was having** a kite. (S4 Feb 14)

(d) *She'**s having** the key. (S6 Feb 25)

We assume that such errors are due to the misinterpretation of the context and over generalizing the progressive aspect for all verb types, whether they are stative or non-stative. We continue with Ayda's *auxiliary be* development.

Ayda's 'Auxiliary be' Development

Figure 4.6 presents the development of auxiliary *be* in Ayda's interlanguage through Samples 1-22.

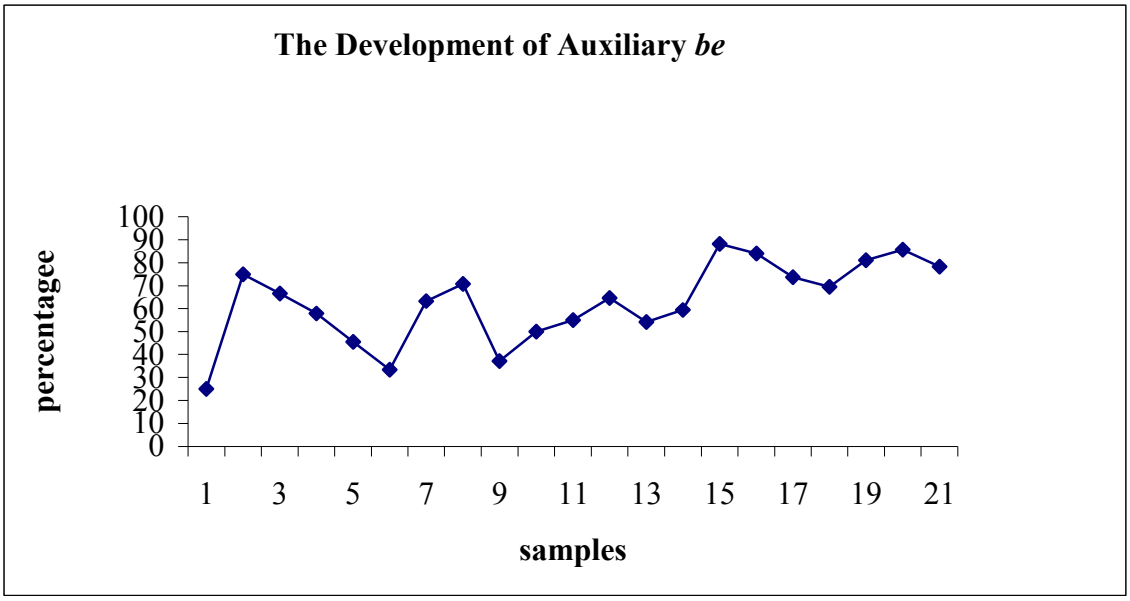


Figure 4.6 The development of auxiliary *be* (Ayda)

Out of 514 obligatory contexts, there were 322 (62.65%) instances with supplied *auxiliary be* and there were 192 (37.35%) missing *auxiliary be* utterances. Consider the following examples:

14.

(a) **Investigator**: These are all friends; can you tell me what they are doing?

Ayda: They **Playing.**

Investigator: Playing what?

Ayda: I think about washing their clothes.

Investigator: And here?

Ayda: They **are playing** food # and # they have an idea # they **watching.** (S8 Feb25)

(b) **Investigator**: Why did she fall down?

Ayda: Because I don't know # and the witch go down # and down #and down # and a people **looking up** in the witch. (S5 Jan 27)

(c) **Investigator**: Who's the present for?

Ayda : I don't know.

Investigator: Turn the page and see?

Ayda: For Garfield.

Investigator: Does he like his present?

Ayda: Yes.

Investigator: How do you understand?

Ayda: Because Garfield **is laughing.**

Investigator: What's the rabbit doing?

Ayda: Rabbit sit down # and watch her daddy.

Investigator: What's mummy doing?

Ayda: Looking the boy. (S10 Mar 15)

(d) **Investigator**: What happened to the snails?

Ayda: The snails **were sleeping.** (S21 Jun 16)

(e) **Investigator**: She'**s wearing** her pajama.

Ayda: I sawed something.

Investigator: Have a seat.

Ayda: I **wearing** my boots.

Investigator: Again?

Ayda: I **wearing** some boots # I **am going** out to the garden too.

Investigator: I'm going out to the garden to?

Ayda: To do….

Investigator: To do what? To count the money?

Ayda: No

Investigator: Oh to swing?

Ayda: To swing.

Ayda: I see a man **counting** the money. (S22 Jun 22)

In Ayda's interlanguage there was only one utterance of overgeneralization of the stative verbs:

15.

(a) I**'m having** this in my big house. (S15 Apr 29)

Now, we continue with the development of *auxiliary be* in Elif's corpus.

Elif's 'Auxiliary be' Development

Figure 4.7 presents the development of *auxiliary be* in Elif's interlanguage through Samples 1-17.

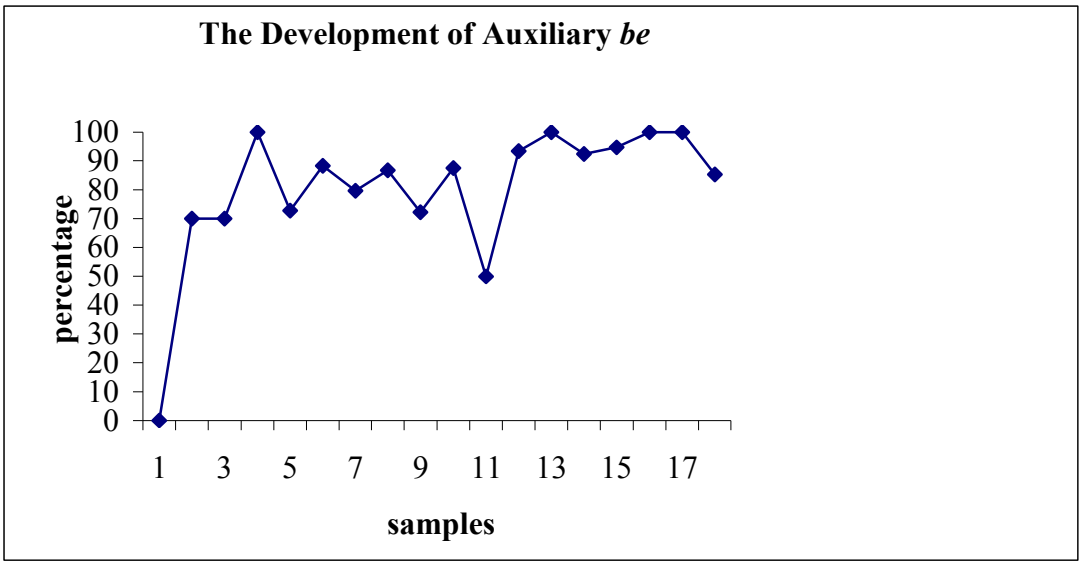


Figure 4.7 The development of auxiliary *be* (Elif)

Elif provided inflected *auxiliary be* instances 243 (85.26%) times out of 285 obligatory contexts. Sample 11 could be somewhat misleading since there were only four obligatory contexts for *auxiliary be* utterances and two of them were uninflected. Consider the following examples:

16.

(a) **Investigator**: What's the grandma doing? What's the grandma telling to Garfield?

Elif: I don't know.

Investigator: Ask the dog why he isn't singing.

Elif: Why you **are not singing**?

Investigator: Ok ask the mum what she is playing.

Elif: What **are you** playing? (S7 Mar 15)

(b) **Elif:** He**'s looking** somewhere to dog # they **drinking** something # Garfield **is going** box # it's a surprise.

Investigator: What's the dog doing with it?

Elif: It'**s sticking** to the house. (S7 Mar 15)

(c) **Elif**: Once upon a time there were three girls looking at the giant's house # the giant **is coming** to eat the girls # then who's this? (S9 Apr 29)

(d) **Elif:** When he look # when he **was going** # he **is going** back to the her village. (S13 May 24)

(e) **Investigator**: What's your mummy going to do today?

Elif: She'**s going** to her # but my mummy is going to buy ballerina. clothes # because I don't have any.

Investigator: What happened to your ballerina clothes?

Elif: I lost them # I **wasn't looking** for them very well. (S17 Jun 24)

Elif, too, made use of stative verbs as progressive, yet with only one word in three utterances:

(a) ***Is** it **hurting**? (S12 May17)

(b) *Because my neck **is hurting.** (S12)

(c) *My bottom **is hurting.** (S 14 Jun 1)

As can be seen in the examples, both the contracted (16 *b* and *e*) and the non-contracted (16 *a, c, d*) forms of *auxiliary be* are observed in the data starting from the very early occurrences, which is parallel with the data discussed in Haznedar (1997).

Figure 4.8 presents the comparison of the suppliance of the *auxiliary be* in obligatory contexts in Nil's, Ayda's and Elif's interlanguage (for a detailed analysis see Appendices B-1, 2, 3).

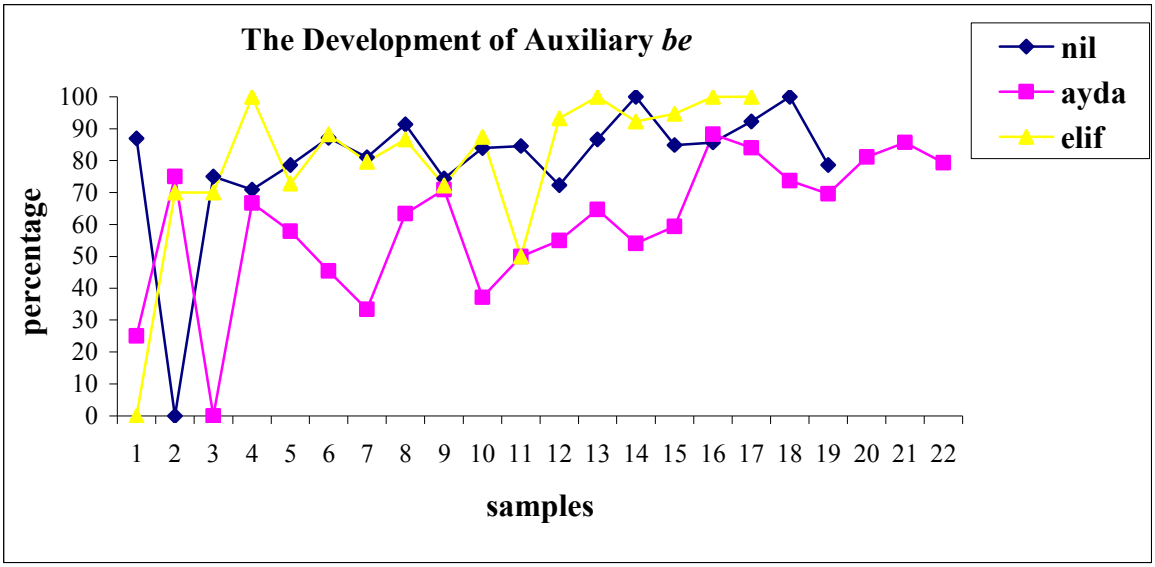


Figure 4.8 The developmental suppliance of auxiliary *be*

As can be seen in the previous examples, the children use and omit the target form even within the same context. However, we also should note that the development of *auxiliary be* in the corpora of Nil, Ayda and Elif is similar to the development of *copula be* utterances, since in the latter, there are barely any fluctuations and once its suppliance reaches at least 90%, it is stabilized, unlike the former where we observe numerous fluctuations. Overall, while the use of *be* in both copula and auxiliary contexts is productive in all the three corpora, the development of the *auxiliary be* appears to be more gradual than that of *copula be* especially in the case of Ayda.

Table 4.2 presents the distribution of *auxiliary be* utterances across three Turkish children and the missing *auxiliary be* is within the range of 14.74% and 37.35%.

Table 4.2 Suppliance and Omission of Auxiliary *be*

	# *aux be* utterances	# missing *aux be* utterances	Total	*aux be%*	missing *aux be %*
Nil	400	79	479	83.51%	16.49%
Ayda	322	192	514	62.65%	37.35%
Elif	243	42	245	85.26%	14.74%

The percentage of suppliance of *auxiliary be* ranges between 62.65% and 85.26%. In addition to the development of the *copula be*, Ayda follows Nil and Elif in the development of *auxiliary be* as well. When we compare the suppliance of *auxiliary be* reported in this study with Erdem's (Haznedar, 2001) percentage of suppliance, which is 75.92% (990/1304), we see that both the numbers and the percentages of the missing *auxiliary be* are similar to the exception of Ayda's production, which can be related to individual differences.

After working on the development of suppletive morphology, we now focus on the distribution of subjects before discussing the development of affixial morphology starting with subject-verb agreement *3 sg-s*.

4.3.1.3. The Distribution of Subjects

The distribution of subjects in all contexts including the copular, auxiliary and 3 *sg-s* and the regular and the irregular inflected contexts are examined in the obtained data of all the three subjects. In the analysis of the overt and null subjects, imperatives and coordinated constructions are excluded from the counts, as they are possible forms in the adult grammar. See the following:

17.

(a) **Investigator:** Can you tell me what they're doing in each picture?

Nil: The aeroplane is swimming.

Investigator: Here?

Nil: She's making bread # and **picking flowers** # just **swimming** # and **making** football. (S8 Mar 29)

(b) **Investigator**: Here? What's Tom doing?

Elif: Crying for the Tv. (S 4 Jan 26)

Method

The formula used to calculate the percentage of the null subjects is as follows:

$$\frac{\mathbf{X}}{\mathbf{X+Y}}$$

X is the number of null subjects in all obligatory contexts.

Y is the number of cases where overt subjects (pronominal and lexical) subjects, are provided.

Appendices C- 1, 2 and 3 demonstrate the breakdown of null vs. overt subjects in Nil's, Ayda's and Elif's corpora. Some representative examples of null subjects in these samples are given in (18):

18.

(a) **Nil:** and then eat the snails. (S16 May 31)

(b) **Context**: The child is describing some fish by looking at some pictures.

Investigator: With a long tail yeah.

Nil: Eating like a shark. (S16)

(c) **Context:** Reading a short story.

Ayda: This is her house?

Investigator: Yes, this is the mummy.

Ayda: And why is not angry with him? (S18 May 24)

(d) **Investigator**: I don't know you tell me why she's playing with it.

Ayda: Pulling her out.

Investigator: Yes, he's pulling the teddy bear out of the sack. (S 18)

(e) **Investigator:** What happened to granddad?

Elif: Wet.

Investigator: Why was he wet?

Elif: Because splash in the water. (S16 Jun 14)

In both Nil's and Elif's data the number and the percentage of the null subjects are relatively low (0.60% 1.15% respectively) and when compared to Ayda's sample (2.76%). In addition, in terms of the distribution of null subjects throughout the samples, the highest

numbers of null subjects are observed in samples 16, 18, and 16, respectively for Nil, Ayda and Elif.

Table 4.3 shows the number and the percentage of all the subjects across the data of the three subjects:

Table 4.3 Suppliance and Omission of Subjects

	The number and percentage of contexts that overt subjects were provided (*pronominal+lexical*)	The number and percentage of null subjects	The number and percentage of non-nominative subjects (*my,her,him,me)*
Nil	3648 (99.40%)	22 (0.60%)	--------
Ayda	5568 (97.10%)	158 (2.76%)	7 (0.14%)
Elif	2670 (98.85%)	31(1.15%)	--------
Total	11.886 (98.19%)	211(1.74%)	7 (0.07%)

As indicated in Table 4.3 in 11,886 utterances with overt subjects there were only seven non-pronominal subjects, which were uttered only by Ayda. These are given below:

19.

(a) **Investigator**: Did you see Elif?

Ayda: We go to take a photograph.

Ayda: and Elif had to take a photograph for everybodys and the teachers.

Ayda: Me draw my picture for him.

Ayda: And **me** got pictures for. (S 13)

(b) **Ayda**: What's **her** calling? (S 17)

(c) **Ayda: Me** first and then you read. (S 20)

(d) **Ayda: Her** just have one arm. (S 15)

(e) **Ayda**: And **her** quickly go. (S 14)

(f) **Ayda:** And **her** shut the door. (S 14)

Vainikka (1993/1994) claims that the presence of accusative and genitive subjects is an indication of impairment in the syntactic trees of children. However, in our data we only have seven instances of such subjects out of 11,886 obligatory contexts for all three of the children.

The method we use in the analysis of the overt subjects is the same as the one we used in order to find the number of null subjects. Next, we start analyzing the development of overt subjects of each child.

The Development of Overt Subjects in Nil's Interlanguage

Figure 4.9 presents the development of overt subjects in Nil's interlanguage in Samples 1-19.

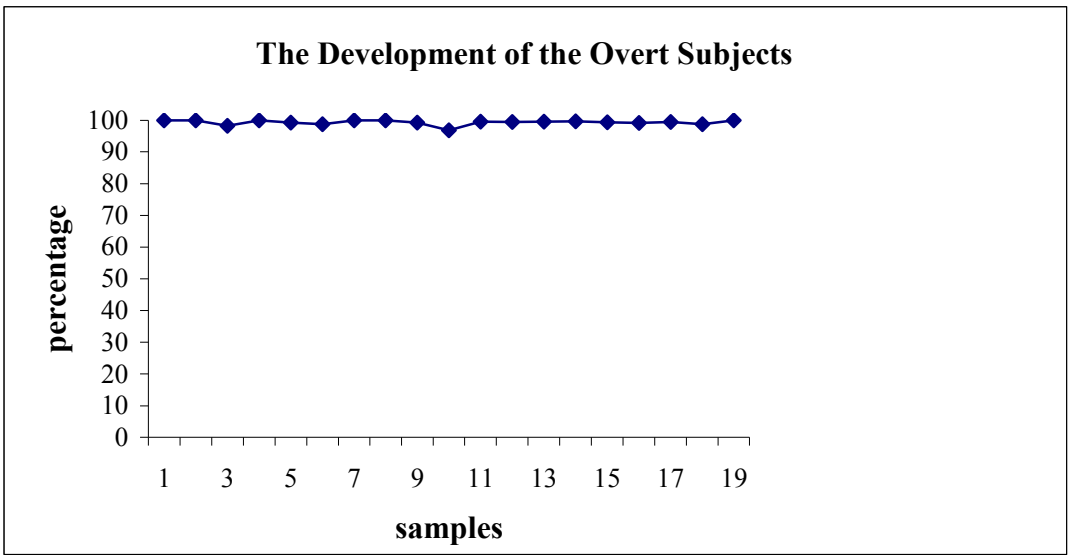


Figure 4.9 The development of the overt subjects (Nil)

As indicated in Figure 4.9, overt subjects are supplied consistently right from the beginning of the data collection, although Turkish is a pro drop language. Nil correctly supplies the case subjects with a percentage of 99.40% (3648/3670).

Consider the following examples:

20.

(a) **Nil**: **Dinosaur** wants more tree. (S4 Feb 14)

(b) **I** know penguins. (S8 Mar 29)

(c) And **the boy** was saying. # "mum # **I** want to go to bicycle".

(S10 Apr 12)

(d) Where is **your book**? (S16 May 31)

(e) When **it** is summer, **we**'re gonna swim. (S19 Jun 22)

The Development of Overt Subjects in Ayda's Interlanguage

Figure 4.10 presents the development of overt subjects in Ayda's data in Samples 1-22.

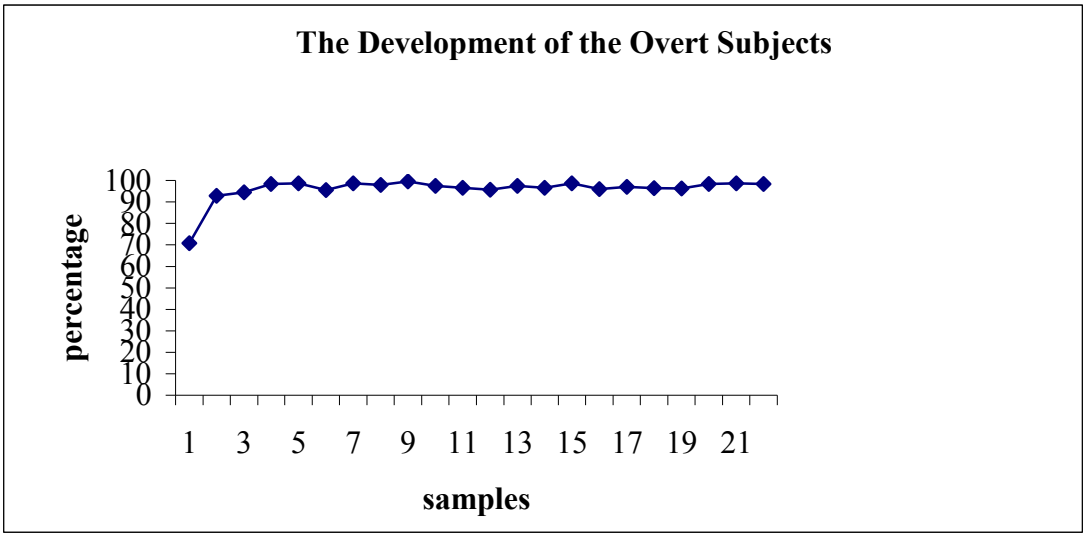


Figure 4.10 The development of the overt subjects (Ayda)

As can be seen in Figure 4.10, overt subjects are provided with a percentage of 97.10% (5568/5734) in Ayda's interlanguage grammar. Consider the following examples:

21.

(a) **Cat** sitting. (S1 Dec 2)

(b) **The mother** didn't see him. (S5 Jan 25)

(c) What are **you** doing? (S8 Feb 25)

(d) **I** will give some paint for you. (S14 Apr 12)

(e) Why are **you** here Sydney? (S19 May 31)

(f) **It** is a spider. (S22 Jun 22)

The Development of Overt Subjects in Elif's Interlanguage

Figure 4.11 presents the development of overt subjects in Elif's data in Samples 1-17.

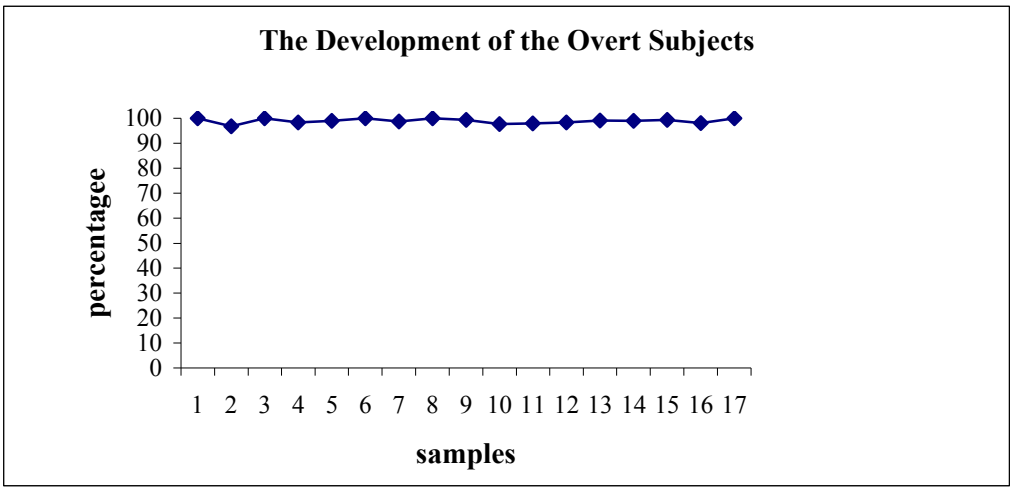


Figure 4.11 The development of the overt subjects (Elif)

Figure 4.11 indicates that Elif uses overt subjects with a percentage of 98.85% (2670/2701). Consider the following examples:

22.

(a) **They** putting hat in the snowman. (S 1 Dec 9)

(b) What are **you** reading? (S4 Jan 26)

(c) **Garfield** gives the certificates. (S7 Mar 15)

(d) Did **Nil** read that? (S9 Apr 29)

(e) When **I** close my eyes # **my eyes** are like this. (S13 May 24)

(f) **I** wasn't looking for them very well. (S17 Jun 24)

We continue with an overall figure which presents all of the three subjects' development of overt subjects.

Figure 4.12 reflects the overt subjects in the data.

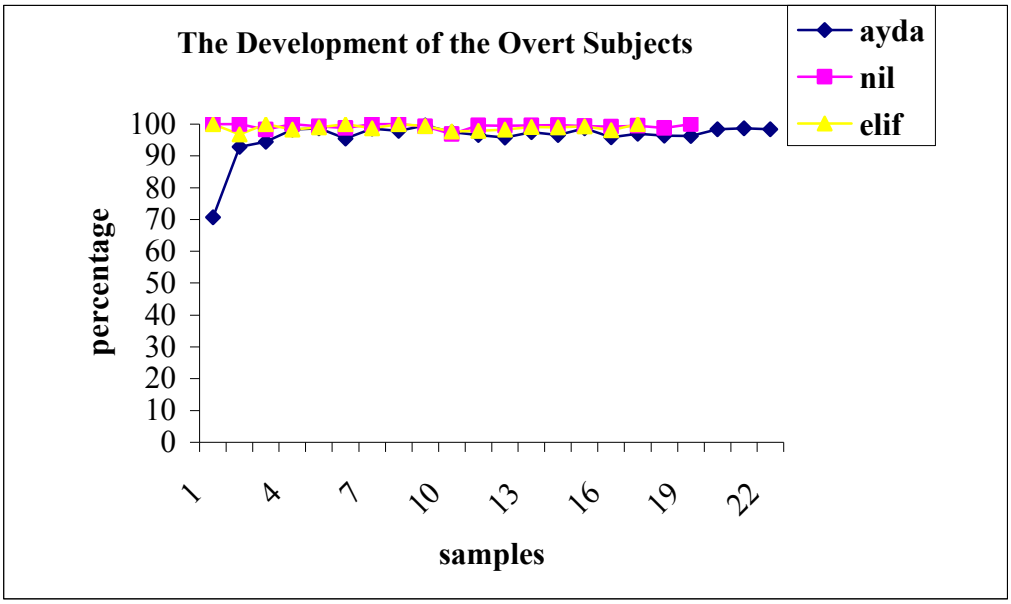


Figure 4.12 The developmental suppliance of the overt subjects

It seems that L1 Turkish learners of English have acquired the mechanisms underlying nominative case checking. As we will discuss in the following sections, the

consistent suppliance of overt subjects, virtually most of which are nominative, provides robust evidence for the projection of INFL.

4.3.1.4. Subject-verb Agreement (*3sg –s*)

As discussed in the previous chapter, agreement morphology is also associated with INFL. Next we will examine the development of the agreement marker, 3 sg *–s* in the data.

Method

In English overt marking for agreement is realized on the *copula be,* auxiliary *be, do*, and *have* and *3sg –s*. As indicated at the beginning of this chapter, *copula be, auxiliary be* and *do* appear rather early, which presents a dramatic contrast with respect to the development of the 3 sg *–s.* Missing auxiliaries may not equate with missing main verb inflection; and no utterances that require an auxiliary are included in the counts (Philips, 1995). Thus, related to the use of *3sg –s* the following are excluded;

i. utterances with the auxiliaries *be, do, have*

ii. yes/no questions

iii. *wh*-questions.

Similar to the formula utilized in the other counts, we calculated the percentage of verbs inflected with *3sg –s* as below:

$$\frac{\mathbf{X}}{\mathbf{X+Y}}$$

X is the number of verbs inflected with *3sg –s* in obligatory contexts.

Y is the number of cases where *3sg –s* is obligatory, but not produced.

We start presenting the development of *3sg –s* with Nil's corpus first.

The Development of 3sg –s in Nil's Interlanguage

Figure 4.13 presents the development of *3sg –s* in Nil's interlanguage through Samples 1-19.

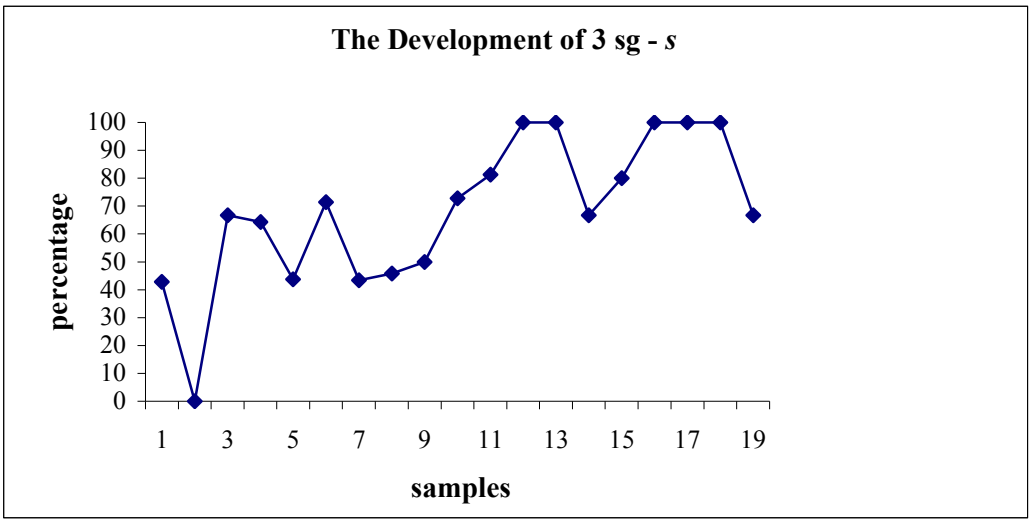


Figure 4.13 The development of 3 sg – *s* (Nil)

Sample 2 in the figure could be somewhat misleading since the sharp decline in the percentage of the inflected verbs is due to the non-existence of the obligatory contexts that require *3sg –s* inflection. Starting with Sample 10, there is a gradual increase in the percentage of the verbs inflected with *3sg –s*. Even in Sample 1 (January 6th) for example,

her suppliance of the agreement marker is 42. 86% as opposed to 57.14% for missing inflections.

The following examples present the inflected and uninflected forms in present contexts:

23.

(a) **Investigator**: What does he eat everyday? Her hand?

Nil: And the grandma **eats** to give a big hug #and # her father # She's good# grandma scare # grandma ***cut*** scary monster # because the mum ***cook*** # and they ***scare*** the wolf. (S1 Jan6)

(b) **Investigator**: That's the Little Red Riding Hood ha? What does a princess do before she goes to a party?

Nil: She **goes** to her house and # she **goes** sleep and # she ***say*** good night so… (S5 Feb 18)

The examples in (23) show that Nil fails to inflect the verbs, *cut, cook, scare, say, cough* with *3sg –s*, and hence, they are analyzed as uninflected forms. If these examples are carefully considered, it is obvious that most of the verbs are either inflected or uninflected without being classified as certain forms of verbs such as transitive or intransitive.

Regarding the development of *3sg –s*, Nil's corpus can be examined in two parts since there seems to be a difference between Samples 11 and 18 in that the percentage of supplied *3sg –s* is much higher after Sample 11. Table 4.4 presents the development of 3sg *–s* before and after Sample 11.

Table 4.4 Suppliance and Omission of 3 sg *–s*

	inflected	uninflected
Samples 1-10	79/ 149 (53.02%)	70/149 (46.98%)
Samples 11-19	74/89 (83.15%)	15/89 (16.85%)
Samples 1-19	153/238 (65.29%)	85/238 (35.71%)

Until Sample 10 the number and percentage of the inflected *3sg –s* verbs are less than the uninflected verbs. Starting with Sample 11 the inflected *3sg –s* verbs exceed the uninflected ones.

Another important point to be mentioned is that although *3sg –s* is omitted in many utterances, it is almost always used correctly. There are only three subject verb agreement errors out of 153 utterances with *3sg –s* regarding the first singular and the third plural subjects.

24.

(a) I **has** teletubbies TV programme. (S2 Jan 14)

(b) They're **loves** trees. (S7 Mar 15)

(c) They **has** a baby under pocket. (S15 May 24)

In addition, in Nil's corpus there is very little evidence regarding the wrong form of the inflection, adding *3sg-s* to the verb in the past tense, for example. There is only one error of such type, all with irregular past tense forms.

25.

(a) Then the robot **brokes.** (S10 Apr 12)

Apart from the three agreement errors and one example of incorrect past tense form, when *3 sg –s* is supplied it is virtually correct. Table 4.5 shows the number and the percentage of agreement errors in Nil's interlanguage.

Table 4.5 Errors 3sg – *s*

	Correct		incorrect	
Samples 1-19	150/153	98.04%	3/153	1.96%

Although it may seem at first sight that Nil uses the inflected and uninflected forms interchangeably, actually she is well aware of the fact that '*–s'* is a third person singular agreement marker.

Now we continue with Ayda's interlanguage with respect to the development of inflected and uninflected *3sg –s* verbs.

The Development of 3sg – s in Ayda's Interlanguage

Figure 4.14 presents the development of 3sg-*s* in Ayda's interlanguage through Samples 1-22.

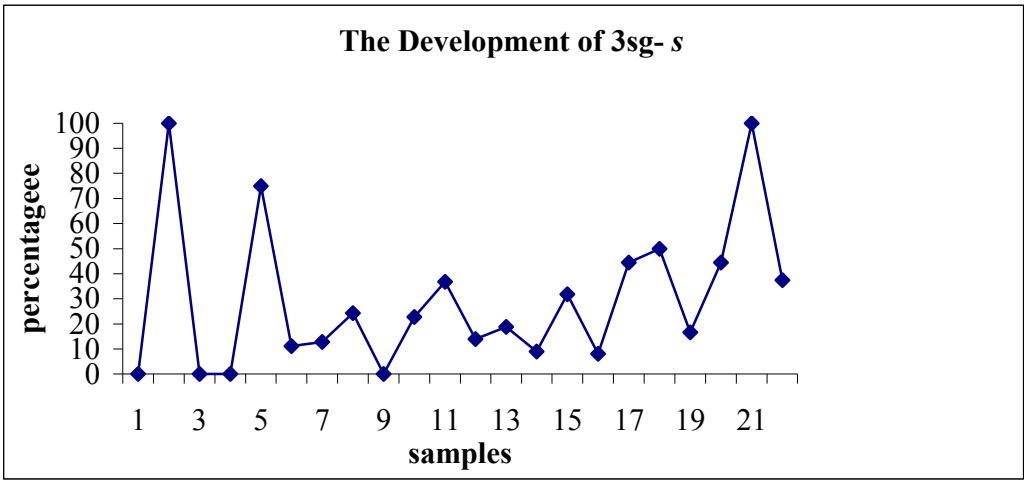


Figure 4.14 The development of 3 sg – *s* (Ayda)

It should be noted that the first four samples are in a way misleading since there are very few obligatory contexts for verb 3sg *–s*. And also in Sample 2, there is only one obligatory context and since Ayda inflected it correctly, it would be wrong to conclude that she has reached 100% of suppliance in her second sample. Consider the following examples:

26.

(a) **Context:** Talking about a favorite fairy tale character, Rapuntzel's and her hair.

Ayda: In the floor # he **gets** here and here legs # he **get** dressed like this # here. (S2 Dec 9)

(b) **Investigator**: What can you see in the garden?

Ayda: A flowers # the bee **wants** to have the flowers # and the #Bee **hear** a town and **see** another animal. (S11 Mar 22)

(c) **Ayda:** And the kitty **look** out in the window.

Investigator: Why does the kitty look out of the window?

Ayda: Because the kitty **wants** to listen # and the dog **want** to play with him. (S6 Feb 14)

(d) **Ayda:** This is the witch?

Investigator: Yes.

Ayda: And witch **comes** # hi # and the dog **yawn** # hooo #I'll take puppies and put in the forest. (S19 May 31)

(e) **Ayda**: Her name is Sally # Sally **sleeps** # and Sally **fall** down # Sally **visit** her mum. (S22 Jun 22)

In examples in (26) Ayda fails to inflect the verbs, *get, hear, see, look, want, yawn, fall,* and *visit,* thus they are calculated as uninflected forms. When inflection is supplied, it is supplied correctly, and the child uses both the inflected and the uninflected forms of the same verbs (see examples 26.a. and *c*.).

Starting from Sample 6 one could observe the gradual development of the verb *3sg-s* across the Samples 6-22. Table 4.6 presents the gradual development of the *3sg-s* before and after Sample 16.

Table 4.6 Suppliance and Omission of 3sg *–s*

	inflected	uninflected
Samples 6-16	41/258 (15.89%)	217/258(84.11%)
Samples 17-22	18/51(35.29%)	33/51(64.71%)
Samples 1-22	63/313 (20.13%)	250/313(79.87%)

Starting with Sample 17, the number of the uninflected items decline and the number of the inflected items increase. However, we should also note that there is a decline in the number of the obligatory contexts as well starting with Sample 17 (see Appendix D).

There are only two subject-verb agreement errors out of 63 utterances with *3sg-s* regarding the first singular and the third plural subjects.

27.

(a) I **takes** him. (S8 Febr 25)

(b) All the animals **sees.** (S11 Mar 22)

There are no errors of verb *3sg –s* in past contexts. Table 4.7 presents the number and the percentage of agreement errors in Ayda's corpus.

Table 4.7 Errors 3sg *–s*

	Correct		incorrect	
Samples 1-22	61/63	96.82%	2/63	3.17%

We start presenting the development of *3sg-s* with Elif's corpus first.

The Development of 3sg –s in Elif's Interlanguage

Figure 4.15 presents the development of *3sg –s* in Elif's interlanguage through Samples 1-17.

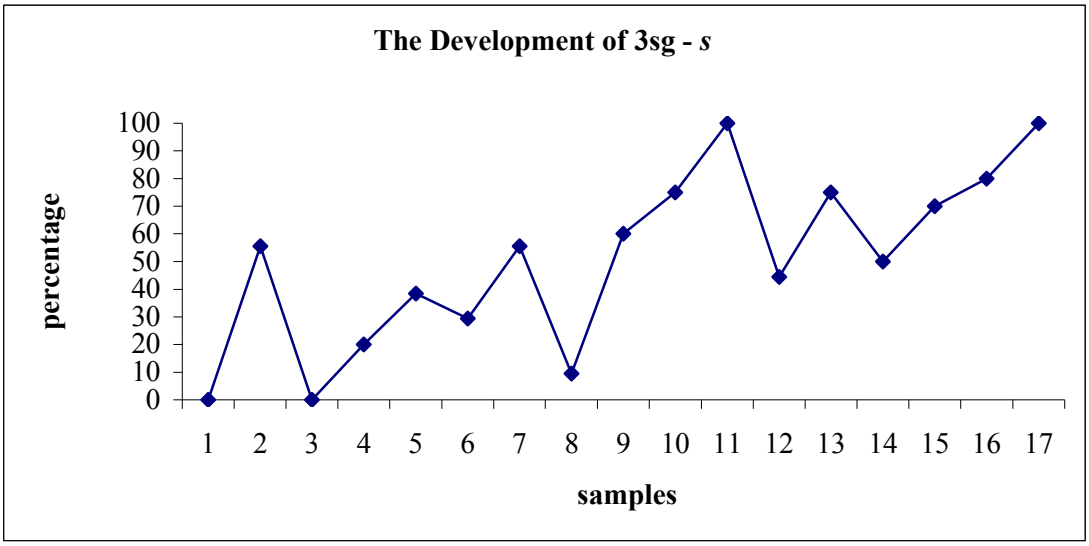


Figure 4.15 The development of 3 sg – *s* (Elif)

We need to highlight some of the misleading points in the figure above. In the first sample there are no obligatory contexts for *3sg –s*. In Sample 3 there are four obligatory contexts for 3sg *–s* inflection but none of them are inflected. Starting with Sample 4, there is a gradual increase in the suppliance of the agreement marker. In Sample 5, the

percentage of the 3sg *–s* inflection is 42.86% (6/14). However, in Sample 8, the percentage drops to 9.52% since only 2 utterances are inflected out of 21 obligatory contexts. Between Samples 9 (60%-3/2) and 11(100%-4/4), due to the limited number of the obligatory contexts, these rates should be handled carefully. Starting with Sample 14 (50%- 3/3), the gradual development continues with high rates of suppliance of the 3 sg *–s*.

Consider the following examples:

28.

(a) **Elif**: He **like** her clothes.

Investigator: And here?

Elif: He's very sad.

Investigator: Why?

Elif: Because she **wears** her dirty clothes. (S4 Jan 26)

(b) **Investigator:** What does he do in the morning?

Elif: He got a phone and he **smells**.

Investigator: What does he do at night?

Elif: And he **sleeps.** (S5 Feb 14)

(c) **Investigator**: Where does he jump into?

Elif: water and splash # the water **comes** out from the big splash # the lion **start** to cry. (S6 Mar 8)

(d) **Investigator**: What does he do?

Elif: He **works** so hard.

Investigator: What does he do?

Elif: He just **work** on the walls.

Investigator: He's an architect then?

Elif: No she's my dad. (S15 Jun 7)

(e) **Elif:** Sharks can eat this.

Investigator: Ok.

Elif: Whale **have** a long sticks in the mouth.

Elif: But it's # whale **has** sticks in its teeth # but whale can eat Nemo. (S16 Jun 14)

Starting with Sample 9 the number and the percentage of the inflected, *3sg-s* verb exceed their uninflected counterparts. Table 4.8 presents the development of *3sg –s* before and after Sample 9.

Table 4.8 Suppliance and Omission of 3sg *–s*

	Inflected	Uninflected
Samples 1-8	32/ 104 (44.44%)	72/104 (69.23%)
Samples 8-17	51/ 72 (70.83%)	21/72 (29.17%)
Samples 1-17	83/176 (47.16%)	93/176 (52.84%)

As far as the presence of agreement morphology is concerned, out of 83 *3sg-s* utterances, only three of them have agreement errors.

29.

(a) They **tells** a story. (S14 June 1)

(b) I **wants** to swim in the water. (S15 June 7)

(c) Their shells **makes** home (S15)

There are no errors of 3sg –*s* in past contexts. Here is the table that shows the number and the percentage of agreement errors in Elif's corpus.

Table 4.9 Errors 3sg –*s*

	Correct		incorrect	
Samples 1-22	79/82	96.34%	3/82	3.65%

As seen in Table 4.9, the agreement errors are low both in terms of numbers and percentages.

Table 4.10 presents the number and the percentage of the agreement marker –*s* across three Turkish children acquiring English.

Table 4.10 Total Number and Percentage of 3sg –*s* Errors

	correct		incorrect	
Nil Samples 1-19	150/153	98.04%	3/153	1.96%
Ayda Samples 1-22	61/63	96.82%	2/63	3.17%
Elif Samples 1-17	79/82	96.34%	3/82	3.65%

As can be seen in Table 4.10, agreement errors are low in this study. In Haznedar (1997), Erdem has 16 (3.66%) agreement errors out of 437 obligatory contexts. Below, we compare the development of *3sg-s* across the corpora of Nil, Ayda and Elif.

The Development of 3sg –s in Nil's, Ayda's and Elif's Corpora

Figure 4.16 The developmental suppliance of *3sg –s* in the interlanguage of the subjects through Samples 1-22.

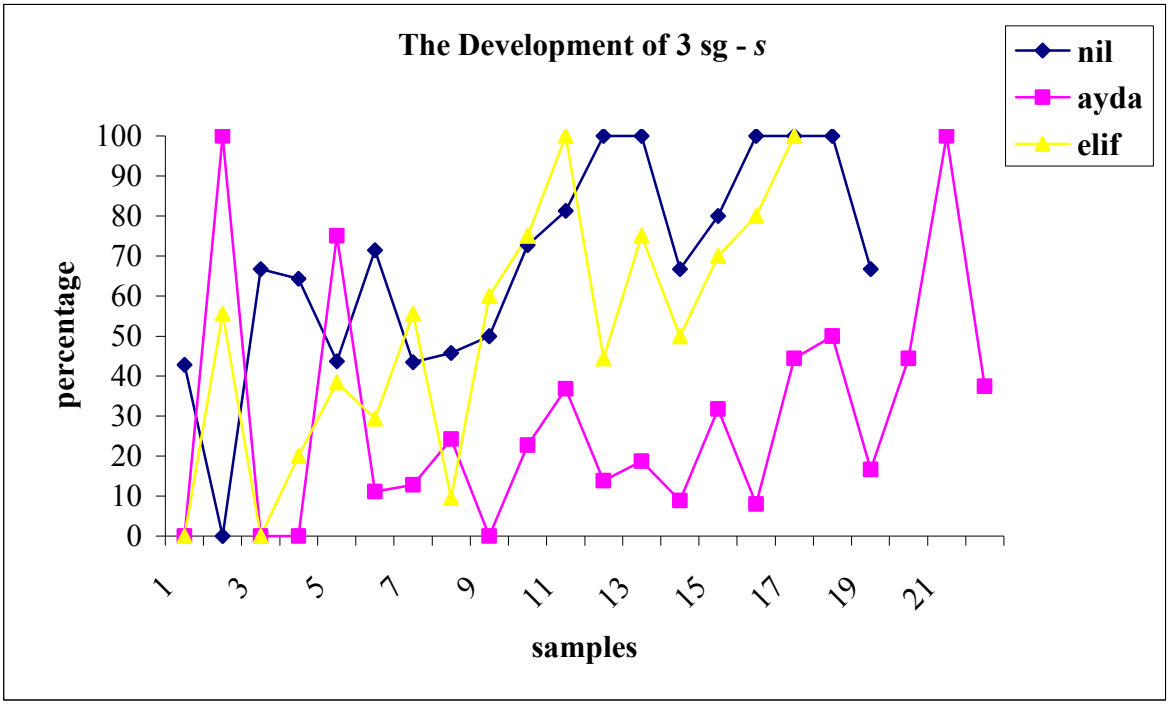


Figure 4.16 The developmental suppliance of 3 sg – *s*

Figure 4.16 presents the developmental suppliance of *3sg –s* by collapsing the whole corpora of the three subjects. As for affixal morphology, we can state that it takes time for it to be acquired and productively used. Suppletive forms are acquired more swiftly when compared to the gradual development of the affixal *3sg –s.* We will continue this discussion further after discussing tense marking.

4.3.1.5. Tense Marking

This section is dedicated to the analyses of the regular and irregular past tense forms. The distribution of irregular past tense forms is analysed at first.

4.3.1.5.1. Irregular Past Tense

In parallel with the procedure used in the analyses of the distribution of the 3sg *–s*, the target irregular verb forms are counted in the obligatory past contexts. Here is the formula:

$$\frac{X}{X+Y}$$

X is the number of the irregular verbs produced in obligatory past tense contexts.

Y is the number of the cases where an irregular verb form in an obligatory context is not produced.

Starting with the first data recording session while we find past forms in Nil's and Ayda's data, no past forms are attested in Elif's corpus, as there are no obligatory contexts for past forms in Elif's earliest sample. We start our discussion of irregular tense marking with Nil's corpora.

The Development of Irregular Past Forms in Nil's Corpus

Figure 4.17 presents the developmental suppliance of irregular past tense forms in the interlanguage grammar of Nil, through Samples 1-19.

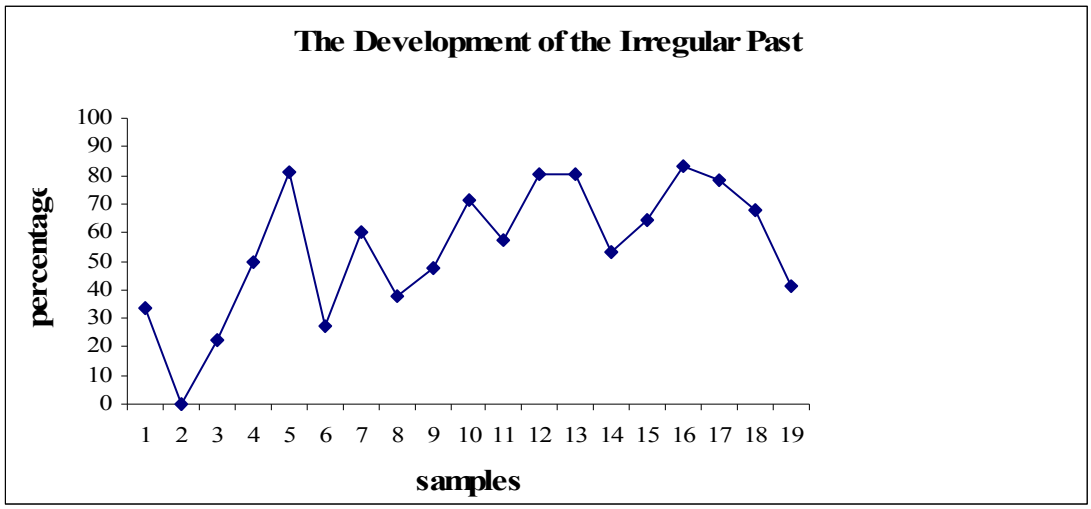


Figure 4.17 The development of the irregular past (Nil)

In the first sample (Sample 1 Jan 06) in 1 out of 3 cases Nil succeeds to produce the irregular form of the verb.

30.

(a) **Investigator**: What color is the crown?

Nil: Green.

Nil: And the crown **fall down.**

Nil: # and it **broke.**

In Sample 3 (Jan 18), Nil produces the irregular past form in 2 (22.22%) instances out of 9. In the remaining seven utterances the uninflected forms of the verbs are used. Consider the following examples:

(b) **Investigator**: Can you tell me the story by looking at these pictures?

Nil: The lion and the tiger **run.**

(c) **Nil:** The dog was taking her book.

Investigator: Why?

Nil: Because the girl **say** # I'm gonna tell my mummy"# the girl **said.**

(d) **Nil:** And once upon a time the baby snail was not scared # This is the daddy # we **seed** this big giant # the daddy snail you **saw** # yes we did see the daddy snail# but we didn't saw the eggs.

She also uses some of the words optionally both in the inflected and the uninflected form. For a detailed list, see Appendix (E-1). Appendix E presents a breakdown of the inflected and uninflected irregular forms. Inflected and uninflected forms are observed even within the same sample. Consider the following examples:

31.

(a) **Nil**: The chicken was going to the pas # and # the fox **eat** the chicken. (S7 Mar 15)

(b) **Nil**: and then he **ate** fish. (S7)

(c) **Nil**: Yeah # I **have** a star fish toy # too # but # I was a baby. (S8 Mar 29)

(d) **Nil**: Because she **had** a party. (S8)

For instance, in Sample 7 the verb *'eat'* is inflected only once whereas it is used uninflected for four times. In addition, in Sample 8, the verb '*have*' is inflected twice whereas it is used uninflected once.

Starting with Sample 5 (Feb 18) the instances of irregular past tense forms increase with a percentage of 80.77% (21/26). During the next months, we observe fluctuations in the development of the irregular past tense. Consider the following examples:

(e) **Investigator**: How do you understand that the dog understood the boy?

Nil: Because she **told** it to dog. (S5 Feb 18)

(f) **Nil**: I **had** a birthday.

Investigator: When? I didn't know that. Why didn't you call me?

Nil: Teachers didn't come.

Investigator: but my grandma **come.**

Nil: And my boyfriend **come.** (S8 Mar 29)

In Sample 8 (Mar 29), for instance the inflected forms constitute only 37.50% (9/24). In Sample 11 (Apr 29) the inflected forms go up to 57.38% (35/61). Consider the following:

(g) **Nil**: And she looked over here #She **saw** the bear and a kangaroo too #

She **told** it to mum # 'Mum mum, I was there' # 'and I **saw** a kangaroo too'.

(S11 Apr 29)

(h) **Nil:** I **did** the elephant.

Investigator: When did you do it?

Nil: In Mr. Richard's class.

Investigator: Ok

Nil: And Harish **did** a pig #and Ayda **did** a dog # and Esra **did** a flamingo # and Benedita **do** the octopus. (S14 May 20)

The percentage of inflected irregular past forms is 53.33% (16/30) with a slight decline in obligatory contexts in Sample 14 (May 20). In Sample 17 (June 07), the instances of the irregular past tense forms are the highest by 78.26% (54/69). Some utterances from this sample are given in (32):

32.

(a) We **went** to the slide with Benedita.

(b) It **had** eggs.

(c) When my mummy **said**: "You're five", I was five in here.

(d) Miss Polly, # I **did** a hat.

(e) Look # who **read** it?

(f) Daddy **had** a problem # he couldn't kill the snail.

(g) Mummy **saw** the monster coming me.

Next we continue with Ayda's irregular past tense development.

The Development of Irregular Past Forms in Ayda's Corpus

Figure 4.18 shows the percentage of the irregular past in Ayda's corpus through Samples (1-22).

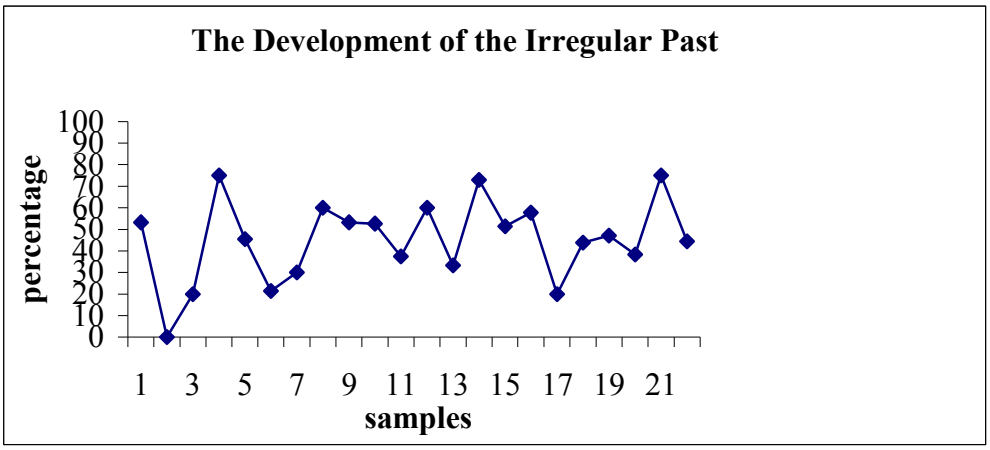


Figure 4.18 The development of the irregular past (Ayda)

In the first sample (Dec 09'04), Ayda produces the irregular form of the verb by 53.33% (8/15). Consider the following examples taken from the first sample:

33.

(a) **Ayda:** he **cried** # and someone eaten my food # and he **said** # somebody **slept** in my bed # mother **said**.

In Sample 5 (Jan 27) the instances of the production of the irregular past tense form is observed by 45.59% (31/68). Here is one of the utterances from Sample 5:

(b) **Investigator:** What did you do yesterday?

Ayda: I **saw** # lots of # baby ducks #and # big ducks.

In Sample 8, there is an increase in the production of the irregular verb forms with a percentage of 60% (24/40). In Sample 11 the correct utterances of irregular verb forms decrease to 37.50% (9/24). In Sample 14 (June 07), the instances of the irregular past tense forms are the highest with 77.92 % (35/48). Some utterances from this sample are given in (34):

34.

(a) The cat **said**: "Can I have more please?"

(b) They **went** and **thought** that maybe doing this mess again.

(c) Her mother **rode** and **rode** and **rode.**

(d) No water **came** in my head that's why.

(e) And the dad **read** in bed.

(f) They **took** the paint.

(g) I **forgot** it.

In Sample 17 the percentage drops to 20% (4/20), and it increases to 75% (9/12) in Sample 21 manifesting a gradual development with a number of fluctuations.

We continue our analysis with respect to the development of the irregular past forms with Elif.

The Development of Irregular Past Forms in Elif's Corpus

Figure 4.19 presents the development of the irregular past forms in Elif's interlanguage through Samples (1-17).

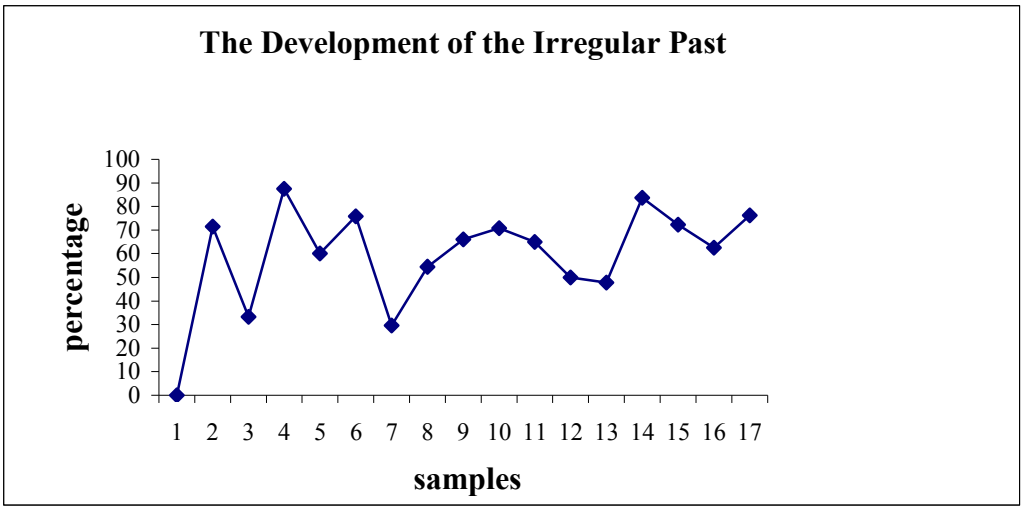


Figure 4.19 The development of the irregular past (Elif)

In the first sample, there are no utterances of irregular past tense forms since the context required no such utterances. Starting with the second sample (Jan 06), it is seen that there is a high number (20/28) and percentage (71.43%) of the irregular past tense forms. Consider the following examples:

35.

(a) **Investigator:** You were talking about the snowman, right?

Elif: Yes, I like snowmens.

Investigator: Now tell me the story of the snowman.

Elif: He **went** to make her snowman # he **ran** # then # he **went** to sleep quietly. (S2 Jan 6)

(b) **Elif**: Garfield pulled a dress # he **take** the certificate # and **give** it

to grandma. (S7 Mar 15)

In Sample 7 the inflected forms of the irregular past decreases to 29.63% (8/27). In Sample 12 the percentage of the inflected and uninflected forms are equalized at 50% (6/12). Consider the following example:

(c) **Elif**: And the terrible car **broke** # the terrible man **fall down.**

(S12 May 17)

In Sample 14 (June 01), the irregular past tense forms are the highest with 83.75% (67/80). Some utterances from this sample are given in (36):

36.

(a) I **said** already.

(b) But mother **told** it.

(c) Two mouses **went** to see the cat.

(d) The cat **saw** the girl.

(e) A cat **made** the cards over plate.

(f) Somebody **ate** me.

(g) Who **did** that?

As can be seen in Figure 4.19, despite varying rates, the development of tense marking appears to be gradual, a similar pattern observed in the other two children, Nil and Ayda. The development of the irregular past forms across Nil's, Ayda's and Elif's corpora are shown in Figure 4.20 for comparison reasons.

Figure 4.20 presents the developmental suppliance of irregular past tense forms in the interlanguage grammar Nil, Ayda and Elif through Samples 1-22.

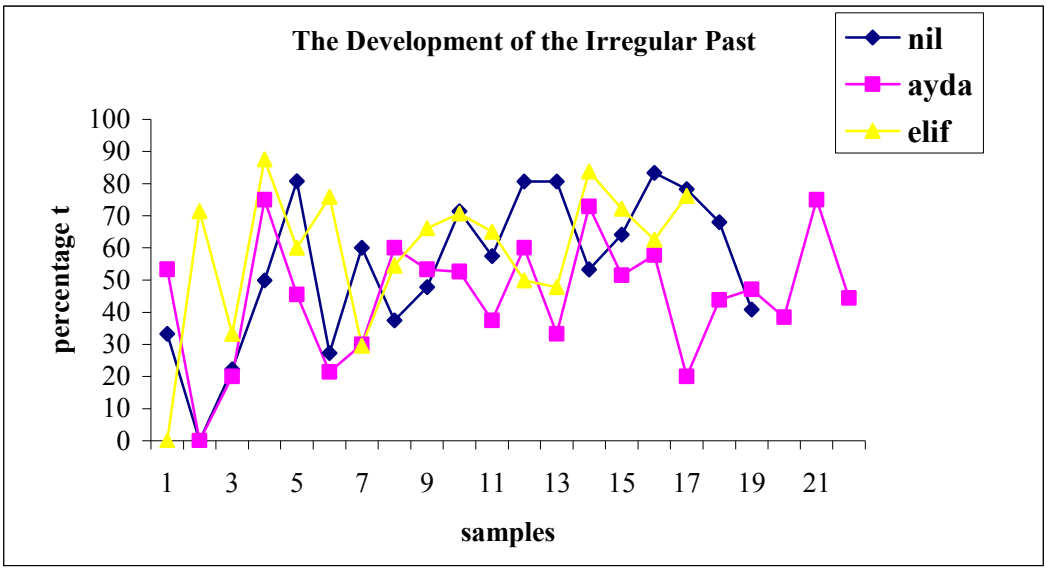


Figure 4.20 The developmental suppliance of the irregular past

As seen in the line graphs of the three children, there is a slow but a gradual development in the acquisition of the past tense irregular forms similar to the development of the *3sg –s*. Irregular past tense forms have various lexical forms that each of which must be learnt individually (Lakshmanan, 1994). Appendices E-1, 2, 3 show the breakdown of individual irregular verbs in past contexts sample by sample. The occurrences of inflected and uninflected irregular past tense forms are presented in bold. The overgeneralization errors will be discussed after viewing the development of regular past tense forms.

4.3.1.5.2. Regular Past Tense – ed

A similar method is used in order to obtain the counts of past regular forms. The corpus was examined for the presence and absence of the overt past tense marking in obligatory past tense contexts. The verb is counted as inflected if the overt past tense marking was supplied and it is counted as uninflected, if the overt past tense marking is missing. We start our analysis with the development of the regular past tense marking with Nil's corpus.

The Development of Regular Past – ed Forms in Nil's Corpus

Figure 4.21 presents the distribution of verbs inflected with regular past *–ed* in Nil's interlanguage.

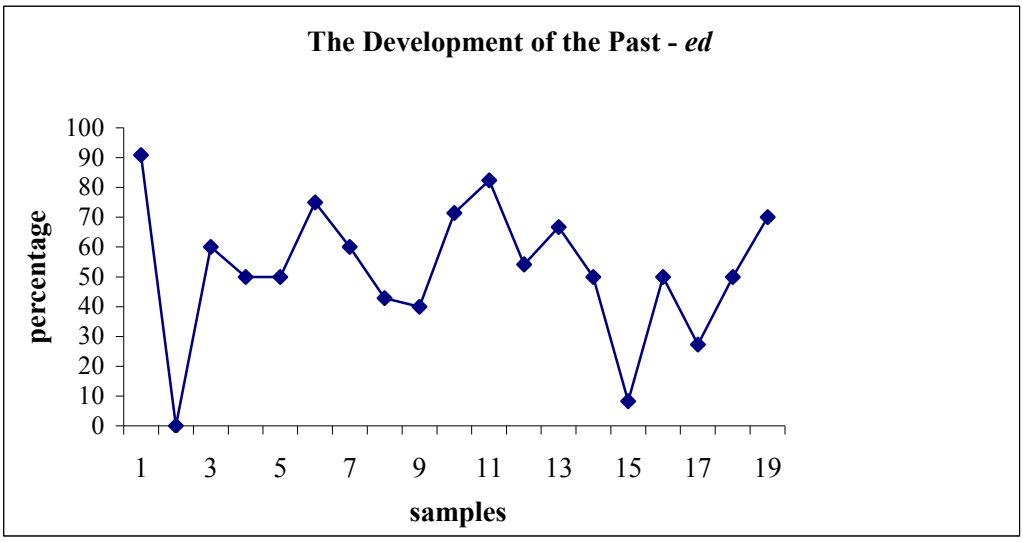


Figure 4.21 The development of the regular past (Nil)

While we find instances of regular past tense forms starting from early samples, the distribution of regular *–ed* is rather sporadic. The second sample is somewhat misleading, since there is only one context that requires past tense marking and that is

missing. As can be seen in Figure 4.21 we find fluctuations in the development of past tense *–ed* in particular starting with the third sample. Starting from the very first sample, the instances of overt regular past tense marking are observed. Consider the following examples:

37.

(a) **Investigator**: What did you do?

Nil: I love duckies # I **look** at it # but # I couldn't find it.

(S2 Jan 14)

In Samples 4 and 5 the past regular *–ed* was inflected with a percentage of 50% (S4: 3/6 and S5: 2/4). In Sample 9, the past-*ed* inflection was observed with a percentage of 40% (2/5). Consider the following examples:

(b) **Investigator**: Did you paint our eyebrows?

Nil: no, just eyes # I **dropped** my mummy's pencil of here.

(S9 Apr 6)

(c) **Nil:** it was snowing day # come on # wake up wake up # It's snowy day # said the dog, worf worf, # she **shout** # so she **jumped** at the bed # and the girl **laughed**. (S12 May 3)

In Sample 12 regular past *–ed* forms are inflected with a percentage of 54.17% (13/24). In Sample 13 (May 10) the percentage and the number of overt past tense marking reach 66.67% (14/21). Consider the following example:

(d) **Nil**: So Ms. Polly **closed** the eyes #and he **opened** # It was tidy up time # and they **tidy** all of them. (S13 May 10)

In the last sample, in Sample 19, the past –*ed* forms were inflected with a percentage of 70% (7/10). See the following example:

(e) **Nil**: The rocket **followed** him # the rocket **shoot** those. (S19 Jun 22)

We continue with the past –*ed* development of Ayda.

The Development of Regular Past – ed Forms in Ayda's Corpus

Figure 4.22 presents the developmental suppliance of regular past –*ed* forms in the interlanguage grammar of Ayda through Samples 1-22.

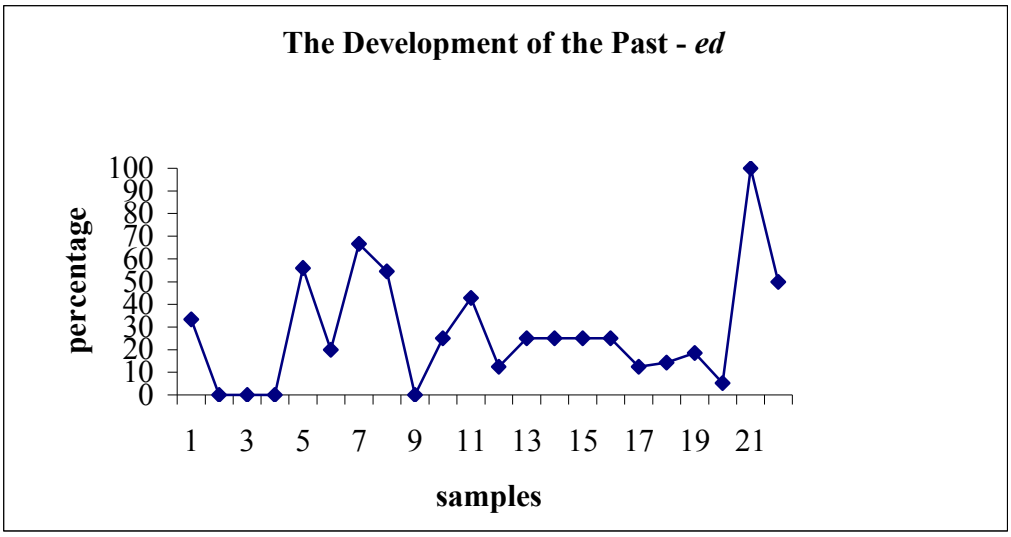


Figure 4.22 The development of the regular past (Ayda)

The distribution of regular past tense morphology in Ayda's L2 English appears to be less productive in comparison to Nil, as we find few instances of utterances inflected with regular past tense morphology. In the first sample
(Dec 09), Ayda produces the regular form of the verb with a percentage of 33.33% (1/3). In samples 2, 3, 4, no obligatory contexts for regular past tense morphology are found. Starting with Sample 5 a number of fluctuations in the production are observed. In Sample 5 (Jan 27), Ayda produces the regular form of the verb with a percentage of 56% (14/25). Consider the following examples:

38.

(a) **Ayda**: And the mother **open** the door # and everyone woke up # and the **mother have** her food # and the children **dress** up. (S5 Jan 27)

(b) **Ayda**: They **opened** the door # and # **moved** away # everyone **laughed**. (S5 Jan 27)

In Samples 13, 14, 15 and 16 the regular past *–ed* is inflected 25-30% of the time (2/8, 3/12, 8/24 and 3/12) respectively. Consider the following examples:

39.

(a) **Ayda:** and the cat **jumped** to the table # and **want** to eat that and these. (S14 Apr 12)

(b) **Investigator**: What happened?

Ayda: I hurt my... (Shows it.)

Investigator: Chin.

Investigator: What happened?

Ayda: I **go** to doctor.

Ayda: They **check** my bones. (S15 Apr 25)

(c) **Ayda:** Her dad **killed** him # and **want** to grab her. (S16 May 3)

By sample 22, we see that 50% (2/4) of the verbs are inflected by past– *ed* tense marking. Consider the following:

(d) Mummy **helped** to my friend. (S22 Jun 22)

(e) I **watch** in her film # yoga. (S22 Jun 22)

We continue with Elif's regular past –*ed* marking.

The Development of Regular Past – ed Forms in Elif's Corpus

Figure 4.23 presents the percentage of regular past-*ed* in Samples 1-17

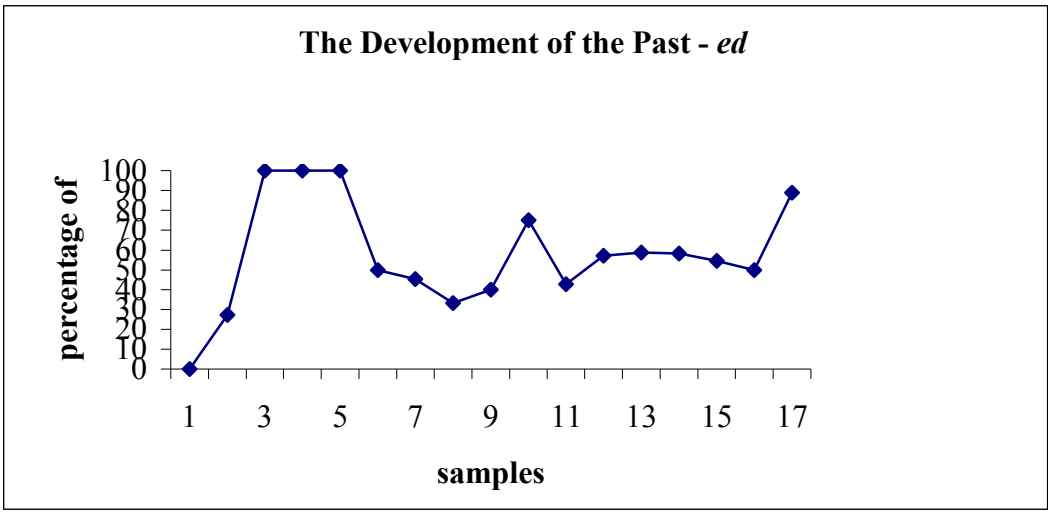


Figure 4.23 The development of the regular past (Elif)

In Figure 4.23 Samples 3 and 4 are somewhat misleading since there is only one obligatory context each for regular past *–ed* and both of them are inflected. Here are some of the instances of the missing past *–ed* inflections:

40.

(a) **Elif**: **Did** you like it?

Investigator: Which one?

Elif: This purple one! (S9 Apr 29)

(b) **Elif**: Look! He's making a mess.

Investigator: Why? What happened?

Elif: He **paint** all of his sock.

Elif: He **paint** all of the mens. (S13 May 24)

And here are the instances of inflected past tense *–ed* forms in (41):

41.

(a) But what **happened** to her mum? (S2 Jan 6)

(b) Somebody **pushed** him. (S4 Jan 26)

(c) And they **asked** the mummy. (S5 Feb 14)

(d) They **scared** the cat. (S8 Apr 12)

(e) Daddy **laughed** hahaha. (S12 May 17)

(f) And I **finished** a little bit. (S16 Jun 14)

(g) The traffic still **stopped.** (S17 Jun 24)

(h) I **watched** tellitubies. (S17 Jun 24)

(i) I **learned** it. (S17 Jun 24)

Now we collapse the percentage of regular past *–ed* in Figure 4.24 to pave way for comparison among the learners. Now we collapse all our findings on one figure to discuss the development of regular past *–ed.*

Figure 4.24 presents the developmental suppliance of regular past *–ed* forms in the interlanguage grammar of Nil, Ayda and Elif through Samples 1-22.

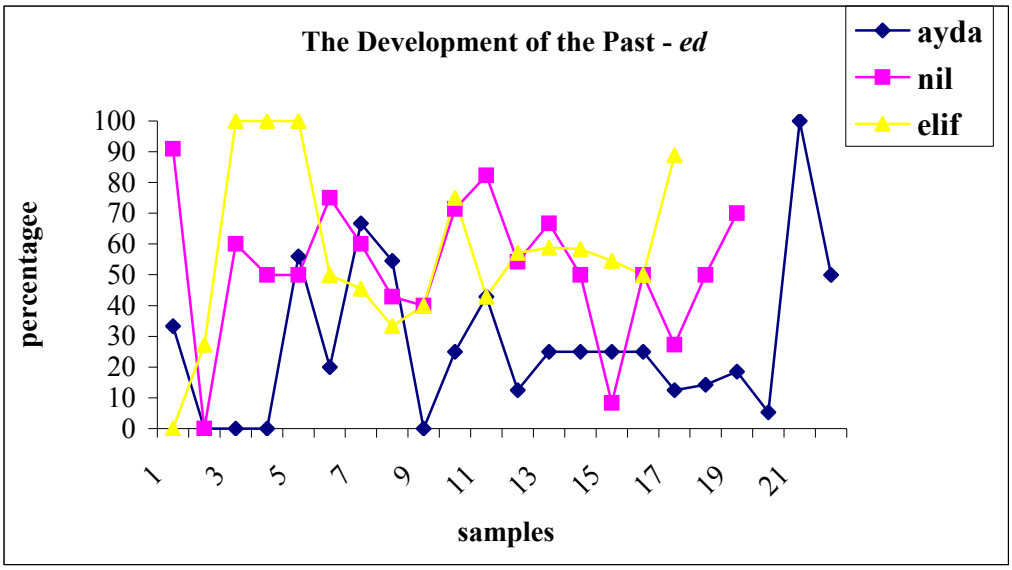


Figure 4.24 The developmental suppliance of the regular past

When we examine the figure above, we see that children follow a gradual development in producing regular past *–ed*. All the children manifest fluctuations in their developmental data. Nil and Elif seem to be following a similar path in their development of the regular past *–ed,* however, Ayda's development can be viewed as more gradual when compared to Nil and Elif.

Table 4.11 presents the percentages of the inflected and uninflected *3sg-s*, irregular past and regular past-*ed*.

Table 4.11 Suppliance and Omission of the Affixal Morphology

	3 sg-s		*Irregular past*		*Regular past*	
	inflected	uninflected	inflected	Uninflected	inflected	Uninflected
Nil (S1-19)	66.67%	33.33%	63.84%	36.16%	56.98%	43.02%
Ayda (S1-22)	20.13%	79.87%	48.25%	51.75%	28.32%	71.68%
Elif (S1-17)	47.13%	52.87%	66.74%	33.26%	56%	44%

As indicated in Table 4.11, L2 acquisition of affixal morphology improves more gradually, taking a longer time than the suppletive forms such as the *copula be* or the *auxiliary be*.

The average inflection rate of the 3 sg *–s* agreement marker is 66.67%, 20.13% and 47.13% for Nil, Ayda and Elif, respectively. In contrast, the average suppliance of copula *be* is 89.52%, 81.1% and 85.9% for Nil, Ayda and Elif, respectively (see Appendix A 1, 2 and 3).

In Ayda's and Elif's interlanguage the development of the irregular past forms seems to be more productively used than the *3sg –s* forms. However, in Nil's corpus the development of the *3sg –s* seems to be leading the regular past *–ed* and the irregular past forms. It is interesting to note that Ayda's development in all affixal forms is slower than Nil's or Elif's development. With respect to past *–ed* marking and the irregular forms, Nil and Elif manifest similar inflection rates. Nil uses the irregular past forms with a percentage of 63.84%, similar to Elif, who uses these forms 66.74% of the time. Likewise, the regular past *–ed* is inflected with 56.98% in Nil's corpus and with 56% in Elif's corpus. In Haznedar (1997), Erdem inflects *3sg –s* and regular past *–ed* by 43% and uses the irregular past forms by 51.44% in obligatory contexts. His development of affixal forms seems to be similar to the three children in this study since the development of irregular forms leads the development of the other affixal morphology.

Figures 4.25, 4.26 and 4.27 present the comparison of suppliance of *3sg –s*, irregular past and regular past-*ed* across Nil's, Ayda's and Elif's interlanguage. We start with Nil's interlanguage of the development of the affixal morphology.

The Comparison of the Suppliance of 3sg –s, Irregular Past and Regular Past –ed in Nil's Corpus

Figure 4.25 presents the comparison of the suppliance of 3sg *–s*, irregular past forms and the regular past *–ed* in Nil's corpus.

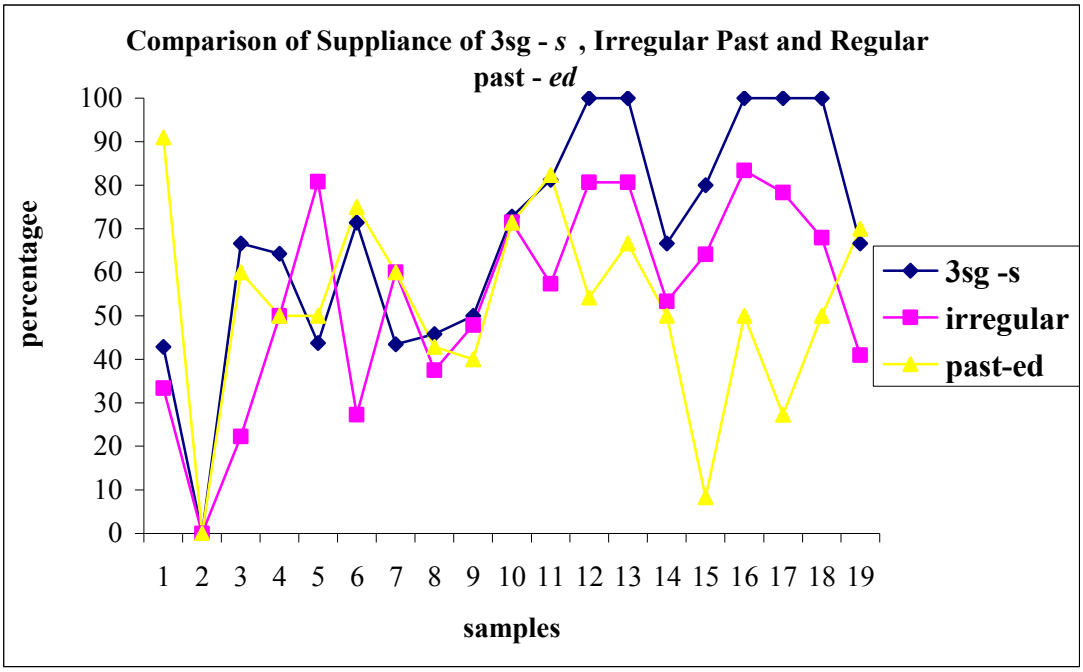


Figure 4.25 The comparison of the suppliance of the affixal morphology (Nil)

In Nil's interlanguage, the development of the affixal morphology is gradual but parallel to each other. After Sample 11, there seems to be a gradual increase for all the affixal forms. However, in sample 16 although there is an increase in the development of the irregular past forms and the *3sg –s* forms, there is a decline in the regular past *–ed* forms. We continue with Elif's development of the affixal forms.

The Comparison of the Suppliance of 3sg – s, Irregular Past and Regular Past –ed in Elif's corpus

Figure 4.26 presents the comparison of the suppliance of *3sg-s*, irregular past forms and the regular past *–ed* in Elif's corpus.

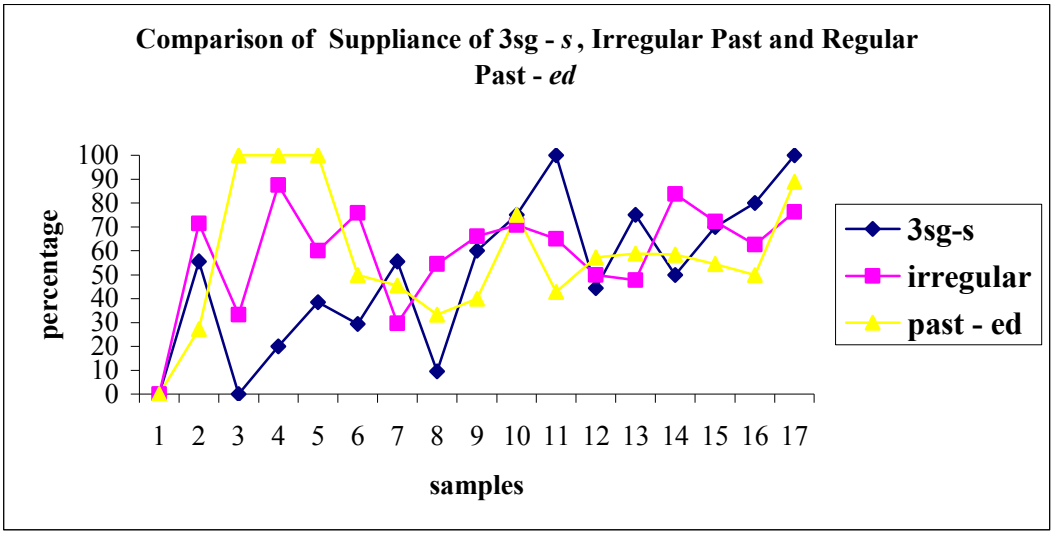


Figure 4.26 The comparison of the suppliance of the affixal morphology (Elif)

What's common in Figure 4.25 and Figure 4.26 is the faster acquisition of the *3sg –s*, which is followed by the irregular past. In addition, affixal morphology does not emerge at a high rate with a sudden increase. In Sample 2, for instance, there is an increase in the suppliance of all the three forms. After Sample 9, the trend of development continues with an increase in all the forms with mild fluctuations when compared to the samples before Sample 9.

Figure 4.27 presents the comparison of the suppliance of *3sg –s*, irregular past forms and the regular past *–ed* in Ayda's corpus.

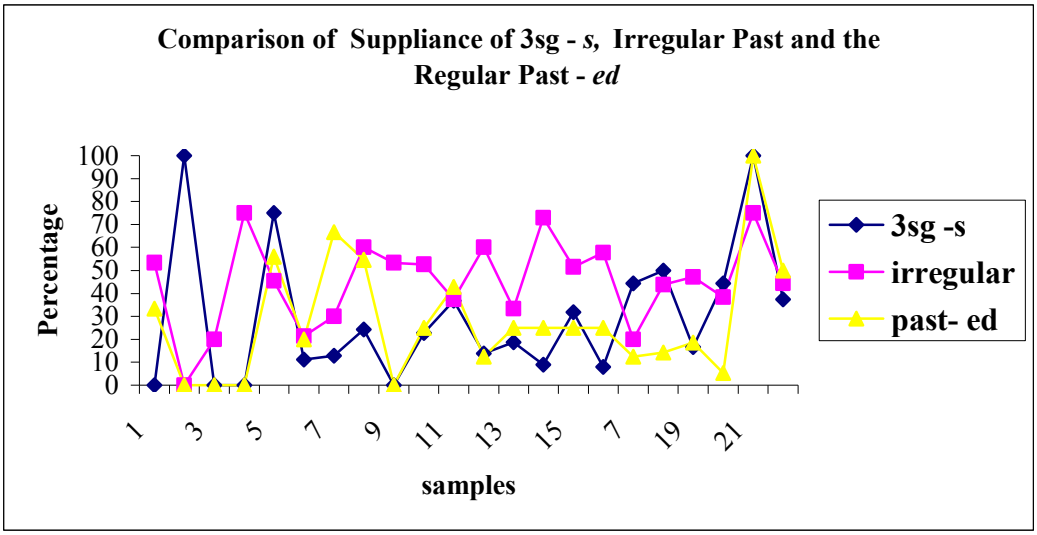


Figure 4.27 The comparison of the suppliance of the affixal morphology (Ayda)

In Ayda's interlanguage, the development of all the three affixal forms is highly gradual when compared to the other two children. However, the analysis of Ayda's corpus indicates that her development of irregular and regular past is faster than the development of verb 3sg *–s*. In the last sample (June 22), the suppliance of verb 3sg *–s*, irregular past and past-*ed* is 37.50%, 44.44% and 50%, respectively.

In this section the development of the affixal morphology was discussed and it was concluded that all the three children exhibited similar gradual patterns. We continue our discussion with the overgeneralised past forms.

4.3.1.5.3. Overgeneralized Past Forms

Another point to be discussed is the use overgeneralised past regular inflection forms in the interlanguage of the subjects. As is known, past tense overgeneralization is among the most cited type of grammatical error in child English (Brown 1973; Brown and Bellugi, 1964; Kuczaj, 1977). Regular verbs are formed by attaching *–ed* to the suffix, whereas the formation of irregular verb forms require substitution of different forms (break-*broke, see-saw)* or no change (hurt-*hurt, cut-cut*). Marcus, Pinker, Ulman, Hollander, Rohen & Xu (1992) show that overgeneralization of *–ed* occurred with only a small percentage of children's irregular verbs (2.5%). That is to say, overgeneralization errors are rather rare. Similar to previous studies both in L1 and L2 acquisition of English, we also find instances of overgeneralization errors in the child L2 data analyzed in this study.

The list of overgeneralised past forms for all the three subjects are presented in Appendices F-1, 2 and 3 some examples of the overgeneralized past tense forms are given in (42):

42.

(a) **Nil:** She **waked** up. (S4 Feb 14)

(b) The rocket **flied** and **flied.** (S9 Apr 6)

(c) You **buyed** another one. (S13 May 10)

(d) **Ayda:** And the kite **flewed.** (S6 Feb 14)

(e) **Investigator**: What happened to Humpty Dumpty?

Ayda: Falled. (S13 Apr 6)

(f) Why they **putted** out clothes on them? (S16 May 3)

(g) **Elif:** The boy **weared** a cat. (She wants to say a cat mask.)

(S9 Apr 29)

(h) They **haved** their nails like this. (S14 Jun 1)

(i) And he **blowed** all the candles. (S15 Jun7)

In Nil's corpus, the percentage of the overgeneralized past forms constitutes 8.96% (68/759) in obligatory past context. Ayda exhibits a percentage of 1.08 % (9/836) of overgeneralized past forms. Elif produces overgeneralized past forms with a percentage of 5.94 % (38/640). While the rate of overgeneralized past forms appears to be higher than that of others in Nil's data, we cannot make any conclusive judgements in regard to when these forms stabilize in her L2 English, as further data are needed.

Having presented verbal morphology data from the three child L2 learners of English in this section, next we move onto the discussion of the issue of the availability of functional categories as expressed in the first research question in Section 4.1. As was discussed in Chapter 2, the absence of lexical forms associated with functional categories in surface representations is regarded as syntactic impairment. In other words, in the absence of past tense *–ed*, or complementizer '*that*', for example, IP and CP are argued to be missing from the learners' interlanguage grammars (e.g. Vainikka and Young-Scholten, 1994). The findings reported in this study, however, present counter evidence for this argument in that this perspective fails to account for 90% acquisition of overt subjects and the consistent suppliance of pronominal subjects, along with the early production of INFL related elements such as *copula be*, all of which falling under the functional category IP. Thus, we propose that not the absence rather the presence of correct mastery of INFL - related elements show that these categories are fully available to the young L2 learners examined in this study.

We conclude that these data give support to the Missing Surface Inflection Hypothesis, because while affixal morphology is largely gradual and not consistent in early samples, the associated syntactic correlates such as the presence of overt subjects and case checking are all completely accurate, and hence, suggesting no underlying impairment to functional categories or features.

Recall that our second research question is concerned with whether L2 learners go through a stage of optional infinitives as proposed for L1 children. We argue that Turkish children do not go through the Optional Infinitive Stage. Recall the predictions made for the presence of the Optional Infinitives in Chapter 2 section 2.1.1.4.1. It is predicted that children will not use null subjects in finite contexts and this stage will end once the past forms appear. In our data we argue that even though past forms are present in the interlanguage of all the three children since the first data collection session, they still use non-finite forms in finite contexts. In addition, Nil supplies verbal inflection in 16 contexts out of 20 null subject contexts. Ayda inflects the verb in 124 contexts where there is no overt subject out of a total of 158 null subject contexts. Elif also applies verbal inflection in 25 subjectless utterances out of total of 29 null subject contexts. In short, our data reveal that child learners of L2 do not go through an Optional Infinitive Stage.

We propose that morphological variability is due to the mapping problems since L2 learners sometimes do not match the abstract forms with their surface presentations. Thus, we propose that there is no impairment in the underlying structure of the child learners in the present study.

4.3.2. Methodology in the DP Related Elements

This section deals with the analysis of the development of the definite and the indefinite articles, and the development of the possessive constructions. The taxonomy we

used in the analysis of the definite and the indefinite environments is similar to the taxonomy used by Robertson (2000) and also Liu and Gleason (2002) derived from Hawkins' (1978). While a number of taxonomies are identified in the literature (e.g. Bickerton, 1981; Huebner, 1983[2]).

4.3.2.1. The Development of the Definite Article

Following Robertson (2000) we do not exclude reformulations and repetitions from our frequency counts, since they might give us an insight in terms of the repair mechanisms of the subjects. I did the frequency count of the categories mentioned as definite and indefinite uses in our analysis.

In recent research two different hypotheses can be identified in regard to the article choice of L2 learners. As was discussed in Chapter 2, section 2.1.3.1, according to **the Fluctuation Hypothesis,** L2 learners of English are predicted to fluctuate in their use of the articles if a binary target article system is being acquired. The learners will have access to both the definite and the indefinite article, manifesting frequent fluctuations.

The Prosodic Transfer Hypothesis, on the other hand, predicts that functional material may be omitted in the production if prosodic structures necessary in the L2 cannot be transferred from the L1. Therefore, omission rates are predicted to be high.

Table 4.12 presents the summary of definite and indefinite NP environments and omission and substitution errors in the corpora:

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[2] Bickerton (1981) categorises the English articles –a(n) /the/zero- according to the semantic functions they carry. The classification of the semantic function of an NP is determined by whether a noun is a specific referent (henceforth +/-SR) and whether the hearer knows the referent (henceforth +/-HK). Huebner (1983) developes a taxonomy based on Bickerton's (1981) depending on the referentiality distinction in addition to the generic use. Ionin and Wexler (2003) use the de re/ de dicto distinction and the referentiality distinction which we have also focused on Chapter 2, section 2.1.3.

Table 4.12 Suppliance, Omission and Substitution of Articles

	The definite article	*The indefinite article*	*Substitution errors*	*Omission Errors*
Nil	70.89%(911/1866)	56.28%(327/1866)	1.50%(28/1866)	32.15%(600/1866)
Ayda	81.7%(1146/2207)	78.51%(632/2207)	1.22%(27/2207)	18.21%(402/2207)
Elif	78.0%(895/1592)	21.4%(316/1592)	1%(16/1592)	22.93%(365/1592)

When Table 4.12 is examined closely, we see that the percentage of the definite article is higher than the percentage of the indefinite article. The kinds of errors made by the child learners indicate that they are more likely to omit both the definite and the indefinite articles.

In Nil's corpus, for instance, the definite and the indefinite articles are supplied 70.89% and 56.28% of the time, whereas omission errors in both the definite and the indefinite contexts were 32.15%. Substitution errors, on the other hand are less than 2%. Consider the following examples:

43.

(a) **Nil**: He is looking at **the** monster # monster eats frog. (S7 Mar 15)

(b) **Investigator**: What's the fox doing?

Ayda: Want to eat **the** chicken.

Investigator: Why?

Ayda: Because fox is hungry # that fox go in her grandma house.

(S10 mar 15)

(c) **Elif**: You cannot be **a** cat # oh **cats** more better than that # because **the** cat learn more words, not you! (S14 Jun 1)

As has been mentioned previously, the Prosodic Transfer Hypothesis predicts that functional material may be omitted in the production if prosodic structures necessary in

the L2 cannot be transferred from the L1. Therefore, omission rates will be high and L2 output will not be target-like, which is what is found in this study. We will continue with the development of the definite article across the corpus of each child.

The Development of the Definite Article in Nil's Corpus

Figure 4.28 indicates the development of the definite article of the first Child, Nil.

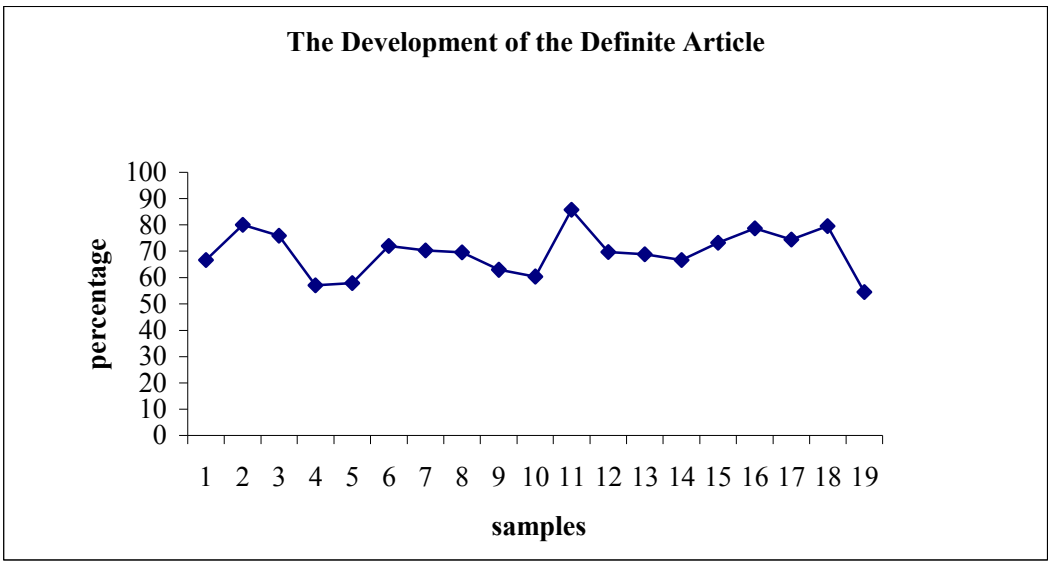

Figure 4.28 The development of the definite article (Nil)

First of all, it should be noted that at the time of the first recording all the participants in the study are able to produce DP related elements. As can be seen in Figure 4.28 Nil's production of the definite article '*the*' is around 66.67% (37/55) in the first sample. Despite the fact that the learner makes use of '*the*' with varying degrees, samples 4 (57.14%), 5 (42.03%) and 19 (46.45%) indicate high percentages of omission rates. Consider the following examples:

44.

(a) **Nil**: There was a man # he saw a prince # and prince was very very tall.

(S4 Feb 14)

(b) **Investigator**: Choose a sticker.

Nil: I choose # I choose # I want to choose chicken. (S5 Feb 18)

(c) **Investigator:** Look at the space monster.

Nil: Yes # space monster # space monster has a leg # space monster goed fast # space monster was not there. (S19 Jun 22)

In the first sample, the correct use of the definite article is 66.67% (37/55) yet in sample 4 there is a drop and the correct use of the definite article is 54.14% (16/28). In sample 11 the correct use is 85.71% (72/84). Overall among 1285 obligatory contexts of the definite article 911 of them are used correctly in the target form (70.89%). Consider the following examples:

45.

(a) **Investigator**: And what is the teacher doing?

Nil: She's showing **the** letters. (S4 Feb 14)

(b) **Nil**: She was playing with **the** toys again. (S11 Apr 29)

(c) **Nil**: Where is **the** snail book? (S16 May 31)

Next we examine the development of the definite article in Ayda's L2 English.

The Development of the Definite Article in Ayda's Corpus

Figure 4.29 indicates the development of the definite article of the second child, Ayda.

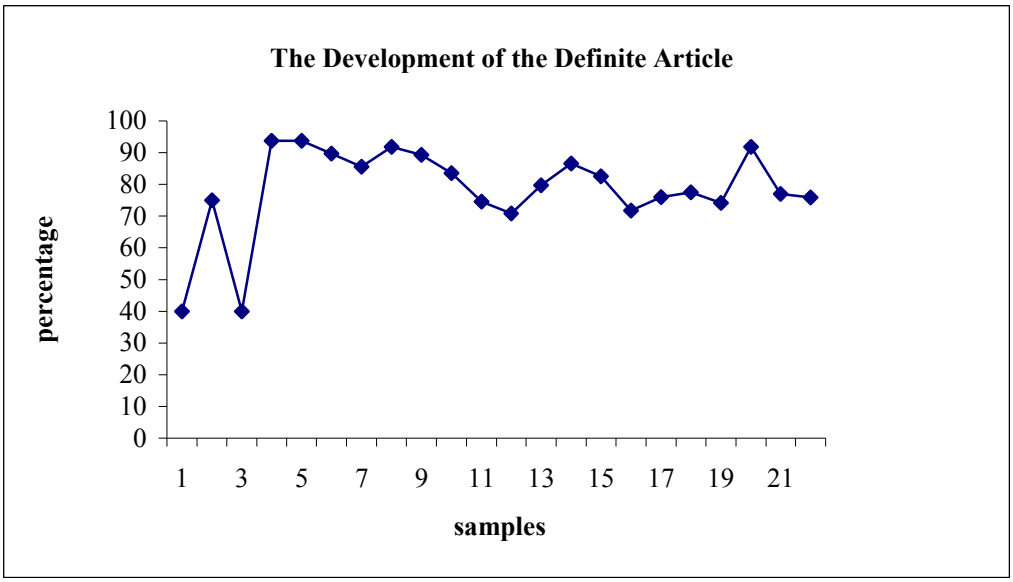

Figure 4.29 The development of the definite article (Ayda)

When Figure 4.29 is examined, it is seen that Ayda omits the definite article with a percentage of 60% (6/15) in the first sample. In sample 3, the omission rate is as low as the first sample with a percentage of 60% (2/5). However, due to the limited number of obligatory contexts for the definite article, the high rate of omission could be misleading. If we study samples 12 (71.6% -43/60) and 16 (28.3%-17/60), we also see a slight decline in the use of the definite articles. Consider the following examples:

46.

(a) **Investigator**: What happened to this car?

Ayda: Car was broken.

(b) **Ayda**: **The** clever man hit and hit and hit # look at snowman # just turn her eyes.

We can observe the same stability in the second child as well, especially after the fourth sample.

Consider the examples below:

47.

(a) **Investigator**: Is a farmer riding every donkey?

Ayda: No.

Investigator: Why not?

Ayda: Maybe **the** donkey run away. (S3 Jan 6)

(b) **Investigator**: What is the boy doing?

Ayda: Playing with **the** bricks # and **the** cat want to play too.

(S7 Feb 18)

(c) **Investigator**: This is a telescope.

Ayda: He is looking off **the** telescope to **the** pirates. (S14 Apr 12)

(d) **Ayda**: I wish the giant is gonna eat **the** people in **the** story.

(S17 May 17)

(e) **Ayda**: I want to look in **the** pictures first. (S20 Jun 7)

In Sample 4, the correct use of the definite article is 93.8% (15/16). In Sample 12, the percentage of the correct use of the definite article drops to 71.6% (43/60). In the last sample, the correct use of the definite article increases with a percentage of 75.9% (22/29).

Overall, among 1402 obligatory contexts of the definite article 1146 of them are used correctly in the target form with an average of 75.86%.

Finally, we examine the development of the definite article in Elif's interlanguage grammar.

The Development of the Definite Article in Elif's Corpus

Figure 4.30 indicates the development of definite article of the third child, Elif.

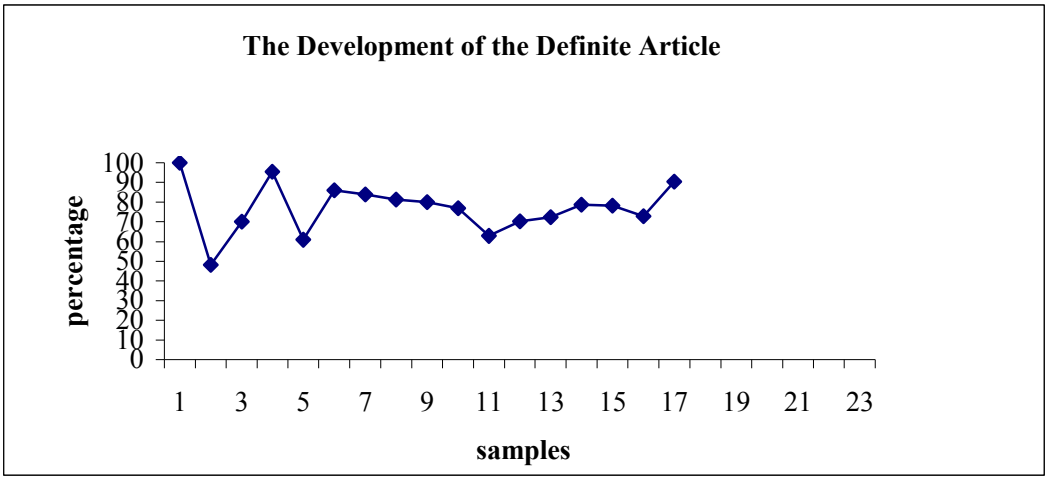

Figure 4.30 The development of the definite article (Elif)

In the first sample, the correct use of the definite article is 100% and in Sample 4, it is realized with a percentage of 93.8%. However, the first sample might somewhat be misleading, since there are only two obligatory contexts and the definite article is correctly supplied in both.

While Elif is able to produce the definite article, she has varying degrees of omission in her production. While in Sample 2 the rate of the omission of the definite article is 43.3% (13/30), in Sample 4, the omission rate decreases to 4.54% (1/22) and in Sample 11 the omission rate increases to 37.14% (13/35).

All in all, among 1147 obligatory contexts of the definite article 895 (76.23%) of them are used correctly in the target form. Consider the following examples:

48.

(a) **Elif**: Who was children?

Investigator: These are the children. The mother isn't with them now.

Elif: Who's mother? (S 2 Jan 6)

(b) **Elif**: But the gingerbreadman can't stay near dog. (S11 May 10)

Starting with the sixth sample, there seems to be a stabilization in the development of the definite article. Starting with Sample 11 we observe a gradual increase in the correct use of the definite article. In Sample 12, the definite article is used with a percentage of 70.2% (40/57), in Sample 16, the percentage is 72.7% (32/44) and in the final sample, Sample 17, it is 90.3% (28/31).

Consider the following examples:

49.

(a) **Investigator:** Which boy is playing football?

Elif: The third boy. (S3 Jan 14)

(c) **Elif:** Grandma was sitting; # **the** pirates came # who did this?

(S10 May 3)

(d) **Investigator:** Who saw Cindrella?

Elif: The little mice # and Cindrella saw little mice # and **the** little mice said # Cindrelli # and Cindrella saw # **the** fat mouse is girl # and **the** girl mouse is Marry # and **the** boy mouse is Jack.

(S17 June 24)

Figure 4.31 indicates the development of the definite article across the three children.

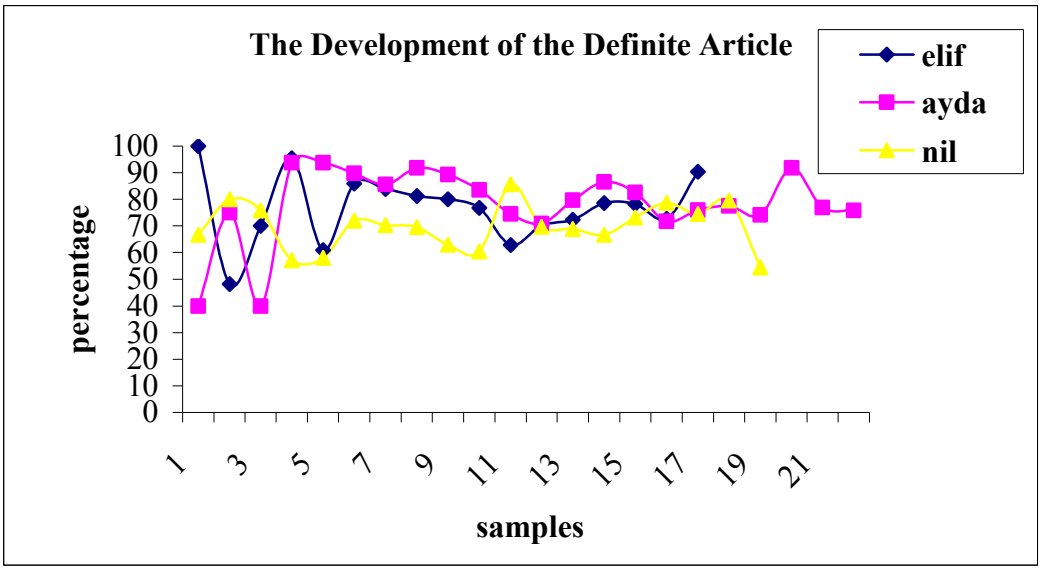

Figure 4.31 The developmental suppliance of the definite article

In accordance with the previous studies conducted by Thomas (1989), White (2003) and Snape (2005), omission errors are high in all the three corpora examined in this study.

When we examine Figure 4.31, we see that the development of the definite article across the corpora of the three children continues in a stabilized way. Although we cannot comment on the initial stages of the development, we observe that Nil, Ayda and Elif have reached an average level of proficiency of 70% in the target use of the definite article, 70.89%, 75.86% and 78% respectively. The development of 3sg *–s*, regular and irregular tense marking exhibit much more fluctuations when compared to the development of the definite article.

4.3.2.2. The Development of the Indefinite Article

The Development of the Indefinite Article in Nil's Corpus

Figure 4.32 indicates the development of the indefinite article in the speech of the first child, Nil.

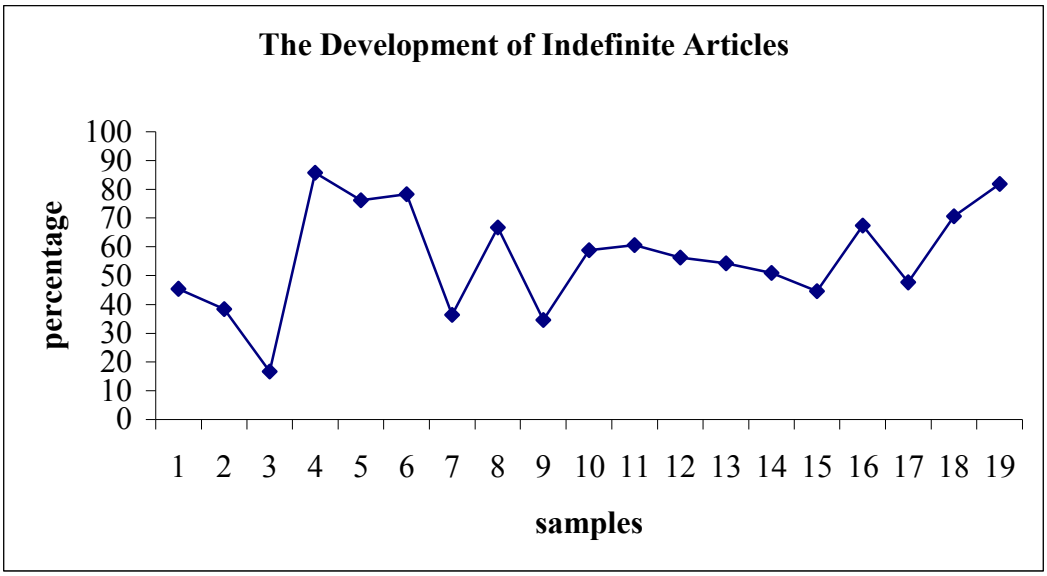

Figure 4.32 The development of the indefinite article (Nil)

If we examine Figure 4.32, in the first sample, the correct use of the indefinite article is 45.45 % whereas the percentage in the last sample is 47.67% with an average of 56.28%. Nil provides the indefinite article with a percentage of 38.46% in Sample 2 and it increases to 85.71% in Sample 4. When we look at Sample 15, the percentage of the correct use of the indefinite article is 44.62% but in Sample 19, the percentage goes up to 81.82%. In short, out of 581 obligatory contexts of the indefinite article 327 (56.28%) of them are used correctly in the target form.

Consider the following examples:

50.

(a) **Investigator:** What was there in the ball?

Nil: She's **a** fish.

Investigator: Did she eat the fish?

Nil: yes she is # she said # that's not **a** food # that's **a** fish.

(S6 Febr 25)

(b) **Nil:** Is the dog here? # is this **a** dog? # No it's **a** bird # is this **a** dog? # No it's **a** fish # so there was **a** frog in there # and they saw this is **a** cat # But this is **a** dog running.

(S13 May 10)

The Development of the Indefinite Article

Figure 4.33 indicates the development of the indefinite article of the second child, Ayda.

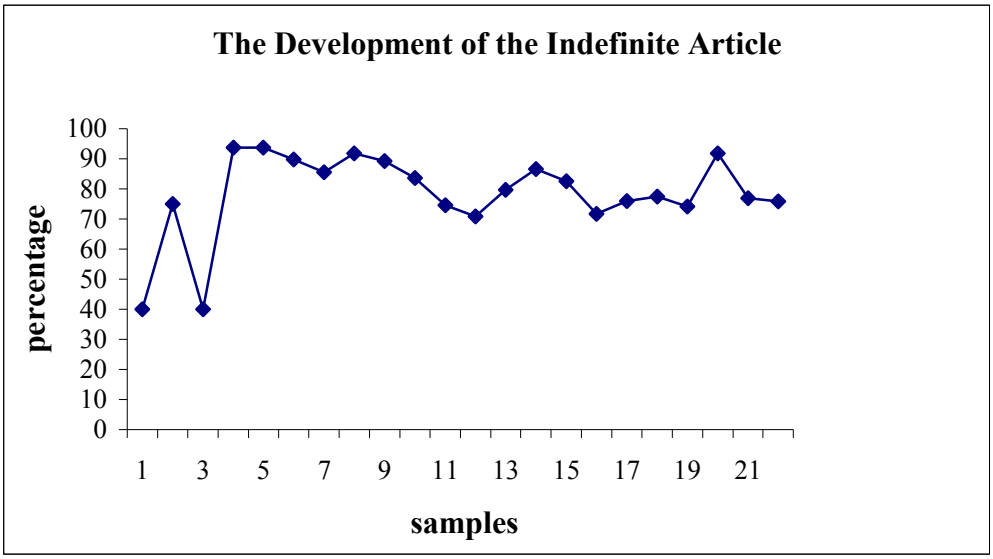

Figure 4.33 The development of the indefinite article (Ayda)

In the corpus of the second child, out of 805 obligatory contexts for the indefinite article, 632 (78.50%) of them are used correctly in the target form, with 153 (31.50%) indefinite articles missing. Ayda provides the indefinite article in obligatory contexts with a percentage of 29.41% in the first sample. In Sample 3, the percentage of the correct use goes up to 87.50%. Especially starting with the fourth sample there is an increase in the percentage of the use of the indefinite article. In Sample 17 the indefinite article is provided with a percentage of 58.06%, which is followed by a sharp increase in the final sample, Sample 22, with a percentage of 88.89%.

Consider the following examples:

51.

(a) **Investigator:** What's the weather like?

Ayda: Sunny #writing **a** message for her friend # **a** teddy bear.

Investigator: What were they doing?

Ayda: Buying **a** ice-cream. (S5 Jan 27)

(b) **Ayda:** What's this animal?

Investigator: **A** Hedgehog.

Ayda: Rosie make **a** hedgehog.

Investigator: Ok This is Sam.

Ayda: Sam make **a** fox.

Investigator: How about Tilak?

Ayda: Tilak read **a** book. (S15 Apr 29)

(c) **Investigator:** What are they doing?

Ayda: I gonna make **a** egg # It can be **a** surprise # Sydney said # It can be **a** egg for me # I'm doing **a** egg # oh for me? # Yes it is.

Investigator: No that's their class. (S20 Jun 7)

(d) **Investigator**: What is it?

Ayda: It's **a** spider # Look at it! # this is **a** real spider? (S22 Jun 22)

The Development of the Indefinite Article in Elif's Corpus

Figure 4.34 indicates the development of the indefinite article of the last child, Elif.

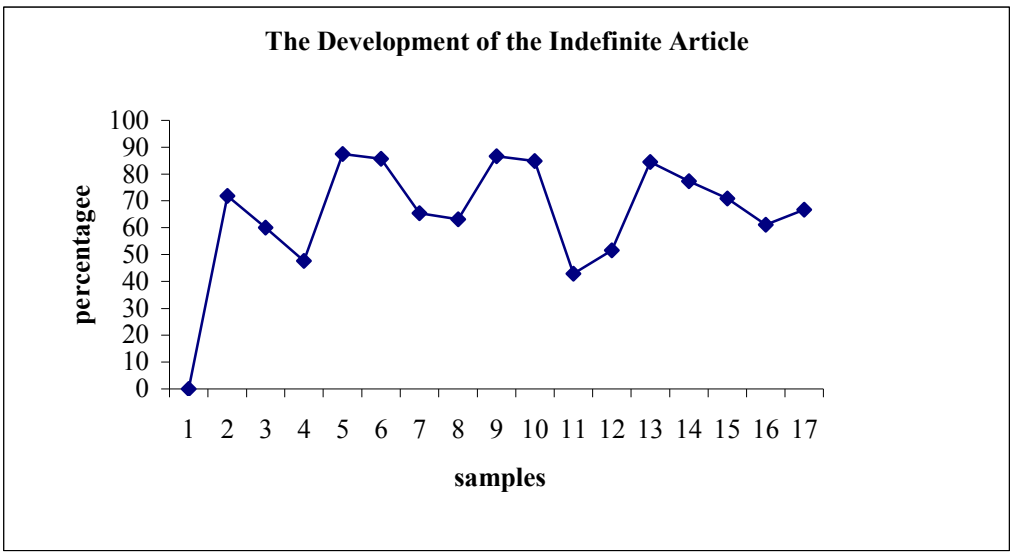

Figure 4.34 The development of the indefinite article (Elif)

In the corpus of the third child, out of 445 obligatory contexts for the indefinite article 245 (55.05%) of them are used correctly in the target form, in 200 occurrences the indefinite articles are missing. In Sample 2, Ayda has a percentage of 71.9% of the correct use of the indefinite article, but in Sample 4, this percentage drops to 47%. In Sample 14,

the percentage goes up to 77.3% and in the last sample, Sample 17 (34.45%), it slightly decreases to 66.7% (8/12).

Consider the following examples:

52.

(a) **Investigator:** What does he think?

Elif: A chicken.

Investigator: Garfield wakes up.

Elif: Garfield read **a** book.

Investigator: What's this?

Elif: It's **a** mouse. (S 7 Mar 15)

(b) **Investigator:** You have earrings too, which one is your favorite?

Elif: Butterfly # I have **a** bracelet and **a** ring # And I like # look # I have **a** heart necklace. (S12 May 17)

(c) **Elif:** He likes me # Because she wants me to be **a** princess.

Investigator: You want to be a princess in the future?

Elif: Yes.

Investigator: A mother princess?

Elif: no not **a** mother princess # I'm not gonna be **a** mother princess.

(S15 Jun 7)

Figure 4.35 indicates the development of the indefinite article across the three children.

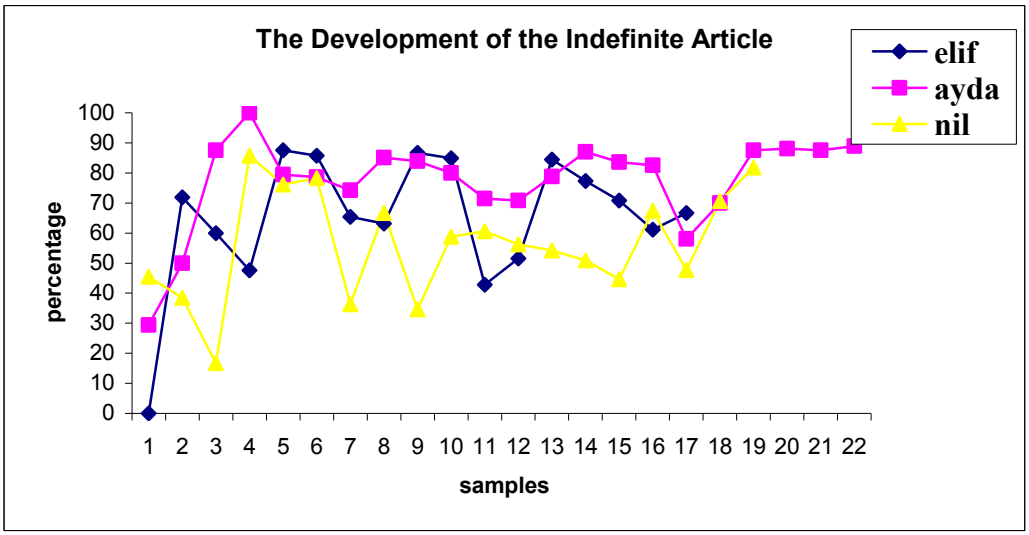

Figure 4.35 The developmental suppliance of the indefinite article

When we consider the figure above we observe that the percentage of the correct use of the indefinite article is 56.28%, 87.50%, 66.67% for Nil, Ayda and Elif respectively. When compared to the development of the definite article, the indefinite article seems to be more gradual and slow, in a way, it follows the development of the definite article. And these results support our third research question, that Turkish child learners of L2 mark '*the*' better than *'a'*.

Up to now, we have examined both the definite and the indefinite article separately in the corpus of each child. In the next section, we collapse the suppliance rate of the definite and indefinite articles and present the overall results in terms of the development of articles in each child.

The Development of Articles in Nil's Corpus

Figure 4.36 indicates the development of suppliance of the articles in Nil's data

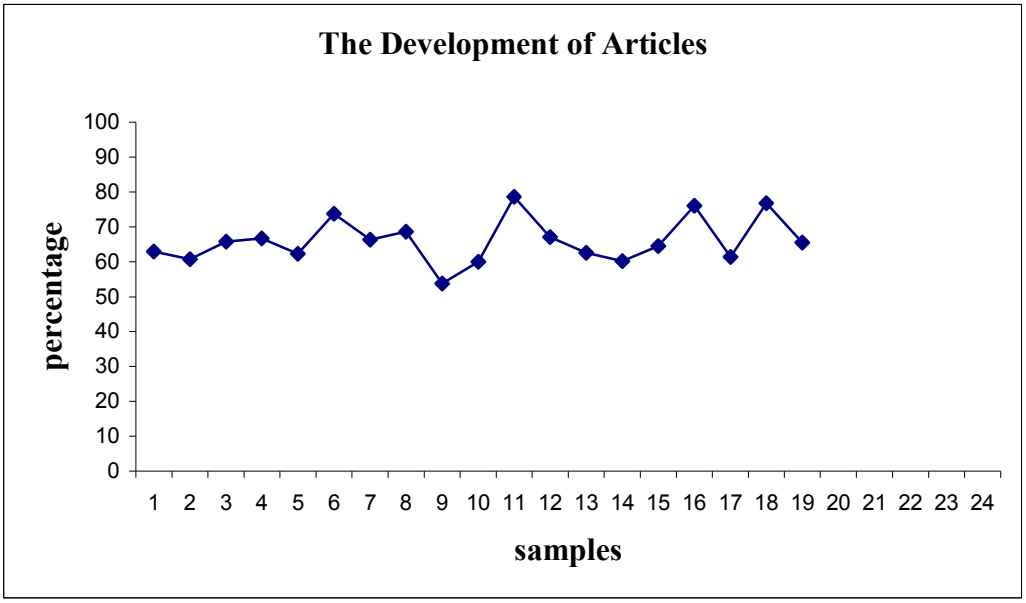

Figure 4.36 The developmental suppliance of the definite and the indefinite article (Nıl)

In Nil's data the correct suppliance of the articles is 66.35%, whereas the percentage of the omission errors is 32.15% and the substitution errors is only 1.50%. In Sample 2, the suppliance of an article in obligatory contexts is 60.71%. The percentage increases to 73.75% in Sample 6. And in Sample 9, there is an abrupt decline with a percentage of 53.75%. When we observe Sample 16, we see that there is an increase with a percentage of 76.02% and a slight decline with a percentage of 65.45% takes place in the final sample, Sample 17. The percentage of the omission errors is still high. However, it should also be pointed out that substitution of the definite in the place of the indefinite or vice versa is very low.

The Development of Articles in Ayda's Data

Figure 4.37 indicates the development of suppliance of the articles in Ayda's data.

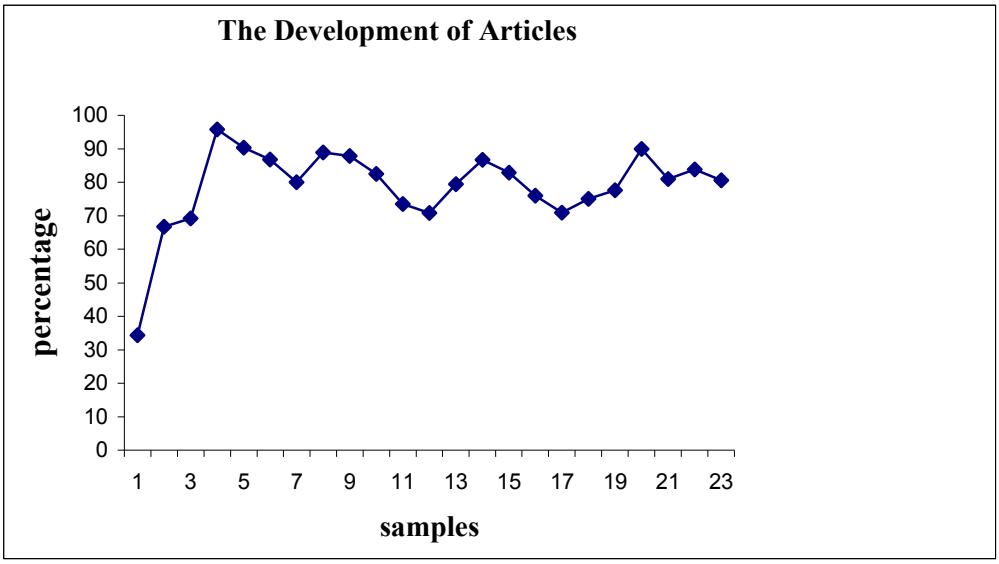

Figure 4.37 The developmental suppliance of the definite and the indefinite article (Ayda)

In Ayda's data the correct suppliance of the articles is 80.56%, whereas the percentage of the omission errors is 18.21% and substitution errors covers only 1.22%. In the first sample the suppliance of articles is very low, at 34.38%. Starting with Sample 4, we observe an increase of 95.83%, however, in Sample 12, the percentage falls down to 70.83%. In Sample 14, a percentage of 86.67% takes place. However, when compared to the other subjects, the percentage of the omission errors is rather low.

The Development of Articles in Elif's Data

Figure 4.38 indicates the development of suppliance of the articles in Elif's data.

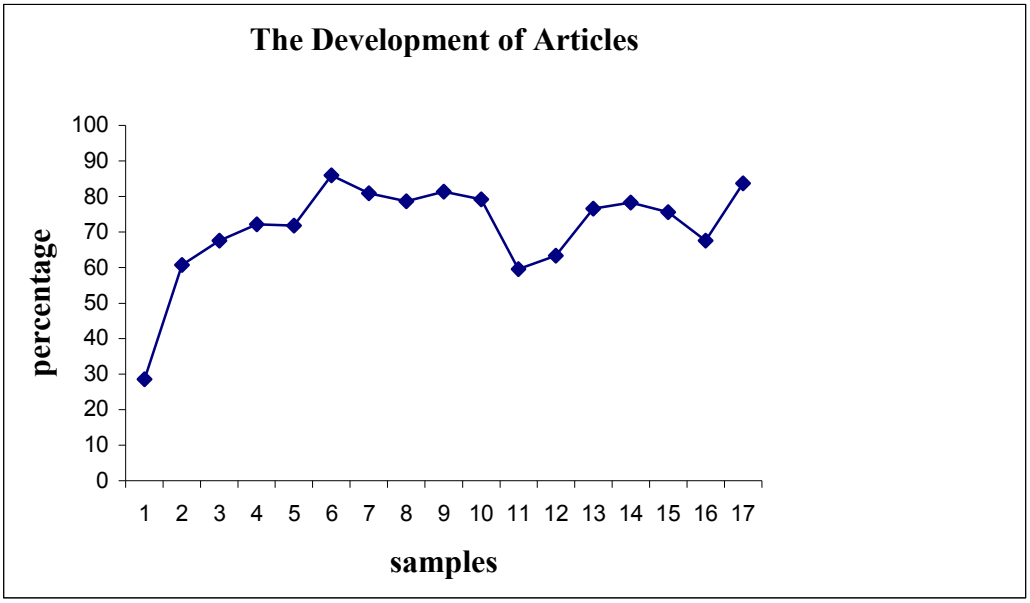

Figure 4.38 The developmental suppliance of the definite and the indefinite article (Elif)

In Elif's data the correct suppliance of articles is 76.07 %, whereas omission errors are 22.93% and substitution errors are only 1.01%. In Sample 1, the suppliance of articles is low (28.57%). In Sample 6, the percentage of the suppliance reaches to 85.90%, but in Sample 11, we observe a sudden decline to 59.52%. In Sample 16, there is a slight increase to 67.50% and in Sample 17, the percentage continues to increase to 83.72%. In accordance with the first two children Elif also displays a high rate of omission errors when compared to the substitution errors.

Figure 4.39 shows the development of the definite and the indefinite article across the three children.

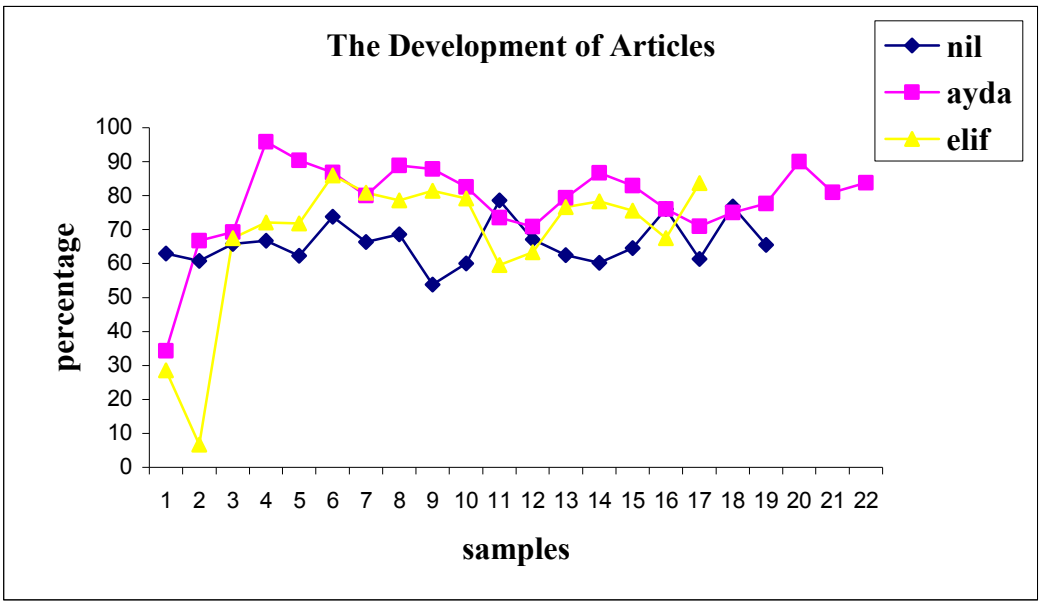

Figure 4.39 The developmental suppliance of the definite and the indefinite article (Nil, Ayda and Elif)

Different from the analysis of the affixal morphology discussed in the verbal domain, as seen in Figure 4.39, the suppliance of the articles is highly similar among the three subjects.

It should be noted that at the onset of the study, with one of the subjects, Nil, the percentage of the supplied articles is above 60% which does not give us an idea about the very initial stages of the subject's acquisition of the English Article system as an L2. In addition, substitution errors of the article distribution are very low, being 1.50%, 1.22% and 1% for Nil, Ayda and Elif, respectively. Thus, the learners are well aware of the definiteness and specificity distinction, and they do not fluctuate between the two articles despite the fact that their L1 does not mark definiteness and specificity in the same manner as in English.

4.3.2.2.1 The Use of the Indefinite Article in Existential Predicates

Next, to have a clear idea about whether our subjects represent definiteness appropriately in their utterances, following White (2003a), we also analyzed existential contexts where well-known indefinite effects are observed. It should be noted that definite DPs are not allowed in existential contexts following *there*, as shown in (53) and (54):

53. There is **a** boy in the pool.

54. *There is the boy in the pool.

Nil, Ayda and Elif produce similar numbers of utterances regarding *there* constructions; we find the following instances of *there* constructions in each child's data, 90, 93 and 74, respectively. Examining existential *there* constructions gives us the possibility to observe whether the subjects in question differentiate +/- definiteness, since *there* constructions must be indefinite by definition. Consider the following table:

Table 4.13 The Number and the Percentage of the Distribution of Articles in Existential *There* Constructions

	Nil	Ayda	Elif
Indefinite article	56 (62.22%)	44 (47.31%)	24 (35.62%)
*Missing article	3 (3.33%)	9 (9.68%)	2 (2.74%)
Bare NPs (plural/mass)	28 (31.11%)	33 (35.48%)	28 (18.49%)
*The	2 (2.22%)	3 (3.23%)	2 (1.37%)
Other determiners	1 (1.11%)	4 (4.30%)	18 (41.78%)
Total	90	93	74

In Table 4.13, the substitution of the definite article in place of the indefinite is rather low by 2.22%, 3.23% and 1.37% for Nil, Ayda and Elif, respectively. The indefinite article is used appropriately in existential predicates. Consider the following examples:

55.

(a) **Nil:** So **there was a** frog in there. (S13 May 10)

(b) **Ayda**: **There was a** rabbit playing with the snow. (S13 Apr 6)

(c) **Ayda:** Look out! **There is a** ghost. (S14 Apr 22)

(d) **Elif: There is a** plate for the milk. (S13 May 24)

(e) **Elif**: One day **there was a** leaf on a frog egg. (S 16 Jun 14)

The acquisition patterns found in this section can be summarized as follows:

(i) In accordance with White's (2003) findings, the use of definite DPs is practically non-existent in existential predicates. White finds that only 1.7% of SD's DPs is incorrectly definite. Our findings provide support for White's study since Nil, Ayda and Elif have 2.2%, 2.7% and 3.2% of definite use of indefinite DPs respectively. Consider the following examples:

56.

(a) **Ayda:** I want to look at the pictures first # look # *there is the bossy cat in a castle. (S 17 May 17)

(b) **Ayda**: There was dog with spot. (S 19 May 31)

The percentage of the missing indefinite article in existential predicates is similar to the percentage of SD's discussed in White (2003a). The percentage of incorrect use is

still low, SD being 5%, Nil 5.5%, Ayda 12.9% and Elif 5%. Consider the following examples:

57.

(a) **Nil**: But there is story. (S13 May 10)

(b) **Ayda**: Maybe there is the mud. (S19 May 31)

(c) **Elif:** And there was the duck goes in the house. (S7 Mar 15)

(ii) When the three corpora are examined, omission of the indefinite article in existential *there* contexts is lower than the overall omission of the indefinite articles in the data (2.22% as opposed to 40%), which is another parallel finding that supports the findings of White.

To sum up, our analysis suggests that all the three subjects in this study have unconscious knowledge of the definite/indefinite distinction and the article use is appropriate in obligatory contexts. After examining the existential predicates, we present the overall suppliance, omission and substitution of the definite and the indefinite article.

Table 4.14 The Distribution of the DP Structure of Each Subject in Number and Percentage

	Nil	Ayda	Elif
Definite article	911 (48.82%)	1146 (51.93%)	895 (56.22%)
Indefinite article	327 (17.52%)	632 (28.64%)	316 (19.85%)
Missing definite	371 (19.88%)	249 (11.28%)	245 (15.39%)
Missing indefinite	229 (12.27%)	153 (6.93%)	120 (7.54%)
Substitution errors	28 (1.50%)	27 (1.22%)	16 (1%)
Total	1886	2207	1592

4.3.2.3. The Development of Possessive Constructions

Finally, we will focus on the development of the possessive constructions, since possessive constructions are a part of the determiner phrase. See Appendices I (1, 2, 3) and J (1, 2, 3) for a detailed breakdown of the possessive pronouns, possessive' *s* and missing possessive' *s*. Here is the methodology used in the calculation of the number of the possessive constructions in the corpus:

We did the frequency count of the categories mentioned as definite and indefinite along with the frequency counts of the possessive constructions. In other words, we also added the counts of the possessive '*s* constructions, missing possessive'*s* and possessive pronouns (my, your, his, her, its, our, their) in our analysis. Consider the following examples:

58.

(a) **Nil**: The dog name is Pully. (S11 Apr 29)

(b) **Ayda:** Benedita picture very nice. (S13 Apr 6)

(c) **Elif:** And some boy hair is white in the snow. (S9 Apr 29)

The following formula gives the number of the frequency count in the development of the possessive constructions:

Method

$$\frac{X}{X+Y+Z}$$

X is the number of the possessive'*s* constructions in obligatory contexts.

Y is the number of the possessive pronouns in obligatory contexts.

Z is the number of the missing possessive'*s* constructions in obligatory contexts.

The Development of Possessive Constructions in Nil's Corpus

Figure 4.40 indicates the development of possessive constructions in Nil's data.

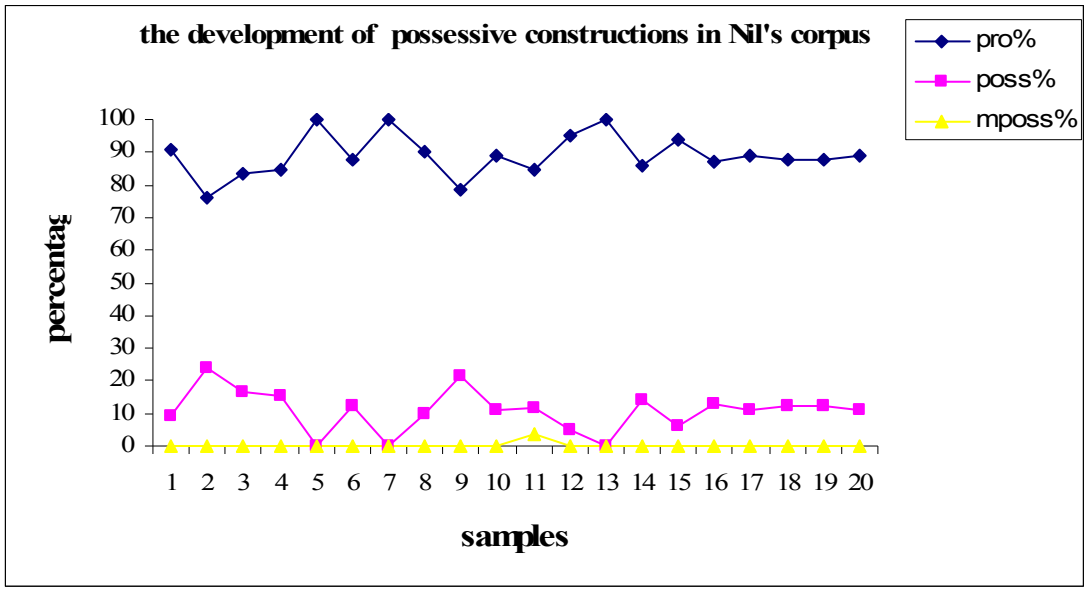

Figure 4.40 The development of the possessive constructions (Nil)

In Figures 4.40, 4.41 and 4.42, 'pro%' refers to the percentage of the possessive pronouns used, 'poss%' refers to the percentage of the possessive *'s* constructions used and mposs% refers to the percentage of the missing possessive *'s* constructions. Nil uses 421 (89.01%) possessive pronouns, 51 possessive *'s* constructions (10.78%) and she fails to supply the possessive *'s* only once out of 473 obligatory contexts. Consider the following examples:

59.

(a) I'm gonna tell **my** mummy. (S3 Jan 18)

(b) What is **your** mummy doing? (S6 Feb 25)

(c) But **its** name is Benedita. (S8Mar 29)

(d) **She** sees hand. (S11 Apr 29)

(e) **Their** car was broken. (S16 May 31)

(f) **Our** mummy is gonna come. (S18 Jun 16)

(g) This is the **baboon's** bottom. (S19 Jun 22)

The Development of the Possessive Constructions in Ayda's Corpus

Figure 4.41 indicates the development of possessive constructions in Ayda's data.

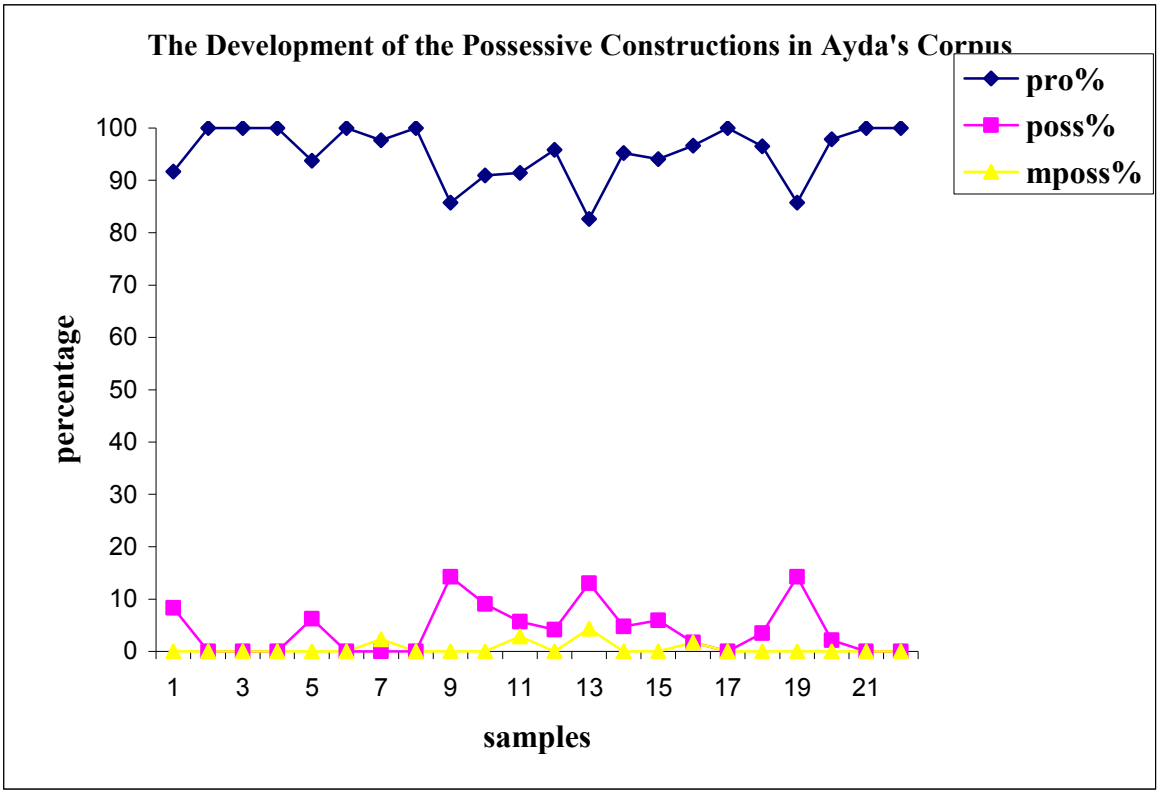

Figure 4.41 The development of the possessive constructions (Ayda)

Similar to Nil's development, Ayda also exhibits high percentages of suppliance of the possessive constructions. Specifically, she uses 569 (94.83%) possessive pronouns, 27 (4.50%) possessive*'s* constructions, yet she fails to use 4 (0.67%) possessive'*s* constructions out of 600 obligatory contexts. Consider the following examples:

60.

(a) I eat with **my** hands. (S4 Jan 26)

(b) I think about washing **their** clothes. (S8 Feb 25)

(c) I don't know **your** class. (S11 Mar 22)

(d) Seda picture very nice. (S13 Apr 6)

(e) **Its** space is in here. (S15 Apr 29)

(f) The wind blow **her** mummy's hat. (S18 May 24)

(g) **Her** name is Sally. (S22 Jun 22)

The Development of the Possessive Constructions in Elif's Corpus

Figure 4.42 indicates the development of possessive constructions in Elif's data.

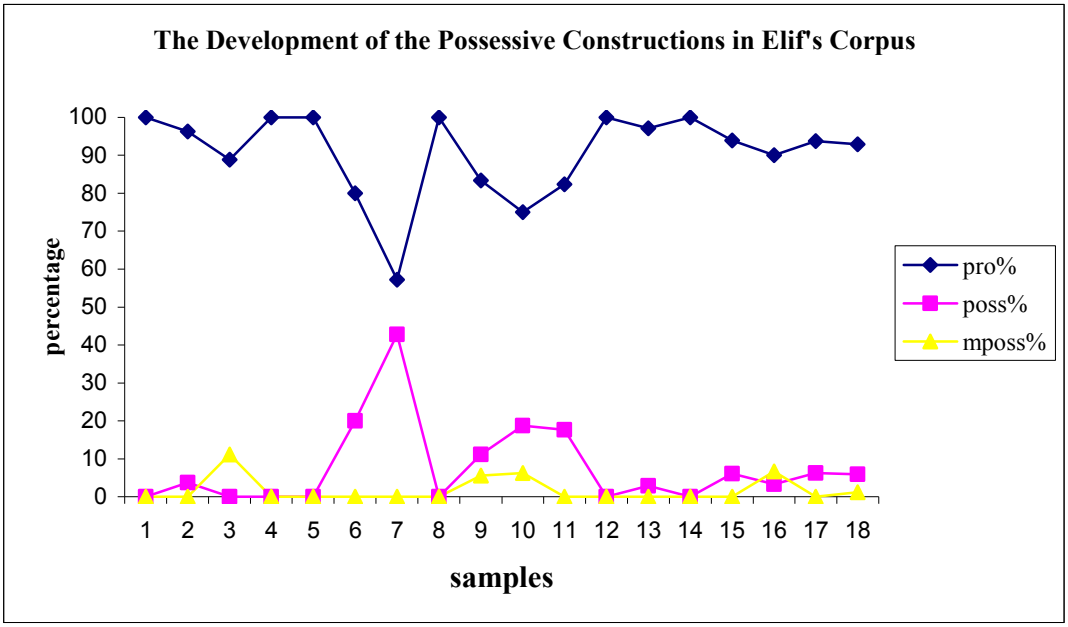

Figure 4.42 The development of the possessive constructions (Elif)

In *Figure* 4.42, we see that Elif is also successful in providing possessive constructions in obligatory contexts. She supplies the possessive pronouns in 368 (94.69%) contexts, possessive *'s* in 18 (3.50%) contexts, yet she fails to use possessive *'s* in seven obligatory contexts with a percentage of 1.18%. Consider the following examples:

61.

(a) **My** brother got a big bear. (S2 Jan 6)

(b) They come in **their** houses. (S5 Feb 14)

(c) No! There is a ghost on **your** back. (S8 Apr 12)

(d) And some boy hair is white in the snow. (S9 Apr 29)

(e) You can't take **our** frog. (S11 May 10)

(f) **Ahmed's** birthday was in Bodrum. (S15 Jun 7)

(g) Whale has sticks in **its** teeth. (S16 Jun 14)

When we consider the three figures above, we find that suppliance of the possessive pronouns is higher than the percentage of the possessive' *s* constructions. The percentage of the missing possessive' *s* is very low indeed being 0.21%, 0.67% and 1.18% for Nil, Ayda and Elif, respectively.

4.4 Conclusion and Discussion

What we can conclude from the data presented here is that all three children have an unconscious knowledge of when to use definite and indefinite articles. However, it should be noted that despite high rates of omission when they are used, they are used correctly. In addition, the surface manifestations of the articles used are highly accurate. The basic problem with the acquisition of the article system of English as an L2 appears linked to the omissions of the articles and in particular the omissions of indefinite articles. As can be recalled from section 4.1, the following research questions are examined in this study regarding the acquisition of DP related elements:

i. Do the child learners of English as an L2 mark "*the*" better than "*a*"?
ii. Are the learners' errors in the use of "*a/an*" and "*the*" systematic or random?
iii. What determines article choice in second language (L2) acquisition?

As indicated in Chapter 2 section 2.1.3.1, the Fluctuation Hypothesis holds that definiteness and specificity are two settings of the Article Choice Parameter. The FH

predicts that L2 learners of English fluctuate between the two settings, using *a* and *the* interchangeably.

The results obtained in this study reveal that there is no systematicity in the errors that children exhibit in this sense. It is not that '*the*' is systematically used in '*a*' contexts or '*a'* in '*the*' contexts in a systematic way. In addition, Turkish young learners of L2 English mark '*the*' better than '*a*', since the overt use of '*the*' is used more correctly than indefinite '*a*'. Nil, Ayda and Elif mark the definite article with 70.89%, 81.7% and 78%, respectively. However, the suppliance of the indefinite article is low, since Nil, Ayda and Elif mark the indefinite article with 56.28%, 78.51% and 21.4%, respectively. Our data reveal that the subjects do not fluctuate between the two article systems, on the other hand their errors were mostly of omission. If child L2 learners in this study used *a* and *the* interchangeably, in line with the predictions of the Fluctuation Hypothesis, we would predict to have found higher rates of substitution errors. For Ionin et. al, if the target parameter for article setting is available to the learner, then those parameters will be transferred. If the parameter is not instantiated in L1, the L2 learners may have access to universally possible parameter settings. Moreover, our learners do not manifest systematicity in their errors. That is to say, the child learners neither sytematically make errors in the same contexts, nor do they fluctuate the articles between the same contexts. Nil, Ayda and Esra use the definite and the indefinite interchangeably with 1.50%, 1.22% and 1%, respectively. Thus, the article choice of the young learners cannot be explained by the Fluctuation Hypothesis, since they neither fluctuate between the two-article system nor do they manifest other possible UG parameters.

As can be recalled from Chapter 2 section 2.1.3.1. The Prosodic Transfer Hypothesis, on the other hand, predicts that if L1 provides the learner with the necessary prosodic structures, the L2 learner will transfer them. If the necessary prosodic structures

in the L2 can not be built from the L1, underlyingly present functional material can be omitted in production. Goad and White (2004) associate SD's low suppliance of the definite and indefinite article to the minimal adaptation of L1 prosodic structures to the L2. Goad and White (2004) also attribute the high rate of verbal inflections to the newly constructed prosodic structures, since Turkish PWd and English PWd are different, thus allowing to minimal adaptation to take place.

Although the prosodification of determiners are on the left edge for both English and Turkish, the Turkish indefinite article 'bir' is an affixal clitic, whereas the English indefinite article is a free clitic. In other words, in Turkish articles are attached to words, but in English they are attached to phrases. Thus, The PTH predicts that high omission rates of articles will be observed due to the different prosodic structures the two languages possess. In our study, we also observe high omission rates of especially the indefinite article. For instance in Nil's corpus the suppliance of the definite article is 70.89%, but the suppliance of the indefinite article is 56.28%.

In the next section, we would like to compare briefly the developmental patterns of the nominal and verbal domains found in this study. If one differentiates between suppletive versus affixal morphology in the verbal domain, it is fair to say that, the development of the nominal domain seems to be higher when compared to that of affixal inflection such as 3sg-*s* and regular-*ed* and irregular past forms. As we have seen previously, at a time the development of copula *be*, the distribution of overt subjects and pronominal subjects is faster and consistent, we have found a gradual development in the suppliance of affixal morphology.

Consider the following table:

Table 4.15 The Developmental Suppliance of the Overt Subjects, Articles and the Affixal and Suppletive Morphology

Verbal Domain	***Copula be***		***Auxiliary be***		***Nominative case on pronouns***	
Nil (S 1-19)	89.52%		83.51%		99.45%	
Ayda (S 1-22)	81.1%		62.65%		97.24%	
Elif (S 1-17)	85.9%		85.26%		98.9%	
Verbal Domain	***3 sg-s***		***Irregular past***		***Regular past***	
	Inflected	*Uninflected*	*inflected*	*Uninflected*	*inflected*	*uninflected*
Nil (S1-19)	66.67%	33.33%	63.84%	36.16%	56.98%	43.02%
Ayda (S1-22)	20.13%	79.87%	48.25%	51.75%	28.32%	71.68%
Elif (S1-17)	47.13%	52.87%	66.74%	33.26%	56%	44%
Nominal Domain	***The definite article***	***The indefinite article***	***Substitution Errors***		***Omission errors***	
Nil (S1-19)	70.89%	56.28%	1.50%		32.15%	
Ayda (S1-22)	81.7%	78.51%	1.22%		18.21%	
Elif (S1-17)	78.0%	21.4%	1.0%		22.93%	

As can be seen in Table 4.15, the development of the copula be is rather high when percentages of Nil (89.52%), Ayda (81.1%) and Elif (85.9%) are compared. However, when we examine the development of the regular past, the percentages of the inflected forms decrease in Nil's (56.98%), Ayda's (28.32%) and Elif's (56%) interlanguage grammar. The suppliance of 3sg *–s* also seems problematic as Nil (66.67%), Ayda (20.13%) and Elif (47.1%) inflect the subject verb agreement marker at low percentages. When we examine the definite and the indefinite article contexts, we see that all the three subjects manifest a difference between the definite and the indefinite article.

It is obvious that L2 learners are much more accurate in the case of free function morphemes (e.g. tense and agreement on auxiliaries, copula and nominative case on pronouns than with bound morphology (e.g. 3sg *–s* and past tense marking). According to Goad, White and Steele (2003), since free function morphemes build their own PWds, there should be no problem representing them in outputs (p: 19).

It should be noted that concerning the acquisition of suppletive versus affixal morphology in child L2 English, Ionin and Wexler (2002) argue that there is a small number of omission of *be* forms as opposed to main verb inflection on 3sg *–s* and tense marking in past contexts. The explanation for morphological variability is referred to as the relationship between verb raising and the use of inflection (Lardiere, 1999; Guasti and Rizzi, 2001; Ionin and Wexler, 2002). Although suppletive forms can be raised, thematic verb forms are not raised, therefore, verb-raising facilitates the acquisition of the target form. Since thematic verb forms are not raised, they are frequently omitted. In yes/no questions and *wh*- questions copula *be* and auxiliary *be* have to be raised to check the relevant tense and agreement features. However, 3 sg *–s* and past tense *–ed* remain in situ, manifesting a weaker inflectional paradigm in English when compared to French, a language with a rich inflection paradigm.

What seems to determine morphological variability is a mapping problem, which indicates that due to prosodic constraints young learners of L2 English cannot make use of functional elements associated with functional categories and omit them. We would like to conclude that the analysis of our data fully supports The Prosodic Constraints Hypothesis.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0. Introduction

The main objective of the study is to examine the presence or absence of the functional categories in the verbal and nominal domain of the Turkish child L2 learners of English. We searched whether the variable use of verbal and nominal inflection suggests syntactic impairment, or it refers to problems associated with surface morphology. The study was a longitudinal one searching for the development of functional categories of IP, and DP in child L2 acquisition.

Based on the results presented in detail in the previous chapter, this chapter will discuss the findings regarding the morphosyntactic variability in child L2 English. Second, pedagogical implications of the findings will be discussed. Finally, the limitations will be presented, and recommendations for future research will be provided.

5.1. Discussion

Recall from Chapter 4 that the first two research questions dealt with whether INFL-related and DP- related elements are available in child L2 English. In an attempt to find answers to these questions, we specifically investigated affixal (i.e. 3 sg *–s*, regular and irregular past forms) and suppletive morphology (auxiliary and copula *be),* the definite and the indefinite articles as well as possessive constructions. With respect to the verbal domain, we found that suppletive forms associated with the INFL projection are acquired quicker than earlier than affixal forms.

Secondly, we looked at whether L2 child learners of English go through the Optional Infinitive stage, which has received considerable attention in both child L1 and

child L2 acquisition in recent literature. In Chapter 2 we discussed the predictions made in regard to the presence of an optional stage where child learners use both finite and non-finite forms in obligatorily finite contexts. In contrast to the predictions made, there is no systematicity in the learners' use of non-finite forms in finite contexts. For instance, in child L1 language the use of non-nominative subjects and null subjects are frequent in non-finite contexts. However, in child L2 English grammars, the percentage of null subjects is rather low and all pronominal subjects are virtually nominative, suggesting that the proposed prediction of the Optional Infinitive stage is not supported in the data analyzed in this study. Overall, data from the distribution of overt subjects and nominative pronouns lead us to conclude that INFL is available to the child L2 learners.

These findings are consistent with the Haznedar (2001) study, which examines the relationship between null subjects and finiteness. On the basis of evidence from a Turkish-speaking child, Erdem, Haznedar (2001) also reports nearly zero non-nominative case errors with only three examples of isolated incorrect non-nominative pronouns in subject position. Similarly, Ionin and Wexler (2002) find a very low percentage (1.8%) of omission of subjects which differentiates the language development of the L2 learner of English from that of L1 and present counter evidence for the existence of the Optional Infinitive Stage for L2 learners of English.

With respect to the development of the child L2 English article system, we have seen that the L2 learners mark '*the*' better than '*a*'. Moreover, the child learners manifest no systematicity in the errors that they make in the use of the definite and the indefinite article. As opposed to what Ionin et al. (2005) claim, the child L2 learners in this study do not exhibit large numbers and percentages of substitution errors, but rather their errors occur mostly in the form of omissions. As discussed in Chapter III the prosodic structure of Turkish and English are different, therefore, as Goad and White (2004) explain it costs

more for the learners to adapt the existing mechanisms to a different paradigm of inflections. However, learning something totally new and untransferrable from L1 is viewed as more economical for the learner. In addition, no fluctuation is observed regarding the use of the definite article for the indefinite or vice versa, suggesting that the child learners in our study are unconsciously aware of the distinction between definiteness and indefiniteness. In the present study, we follow Goad and White (2004) and suggest that the rate of omission of articles is due to phonological differences between Turkish and English, which results in omissions rather than fluctuations in child L2 English.

5.2. Pedagogical Implications

In recent years, English language teaching has been popular in many kindergartens in Turkey where English is taught as a foreign language. This will certainly exert influence on the way languages are taught to young children at an early age. Despite the fact that various researchers hold different perspectives, there appears to be a general consensus that child L2 learners are better learners, especially in terms of the notion of ultimate attainment in second language acquisition (e.g. Felix, 1985, Johnson and Newport, 1989; Long, 1990). We believe that the findings reported in this study will provide useful implications for the teaching of English in classroom settings. It can be argued, for example, that if child L2 learners tend to make use of omissions in their production both in the suppliance of verbal and nominal inflectional morphology, (i) classroom teachers can be urged to review their teaching methods and techniques, (ii) they can also reflect upon the way they approach students' mistakes in regard to the suppliance of verbal and nominal morphology, (iii) and are perhaps urged to find alternatives for providing feedback, rather than mere correction, which has been rather popular especially in classroom settings. Due to the linguistic complexity of the English article system, L2

learners of English, especially if they have a non-articled L1, have difficulty while acquiring it even if they are provided with long years of exposure and instruction of English (e.g. Pica, 1985; Master, 2002; Yılmaz, 2006). Thus, teachers should be aware of such facts and develop their feedback system accordingly.

5.3. Limitations and Suggestions for Further Research

This study poses certain limitations; therefore, in the next section we will highlight some of these limitations so that further research avoids them.

First, at the onset of the study none of the subjects were in their initial stages of development, thus, we could not make any comments on their initial stages of development. Moreover, despite the fact that we have examined longitudinal data, which are usually rare in the literature, the number of subjects is limited in this study. For further research the number of the children should be increased. A related issue here concerns the form of the data analyzed in this study, namely spontaneous production data. Given that the age of the children studied in this study has been rather young, on average age 4.5, it was not possible to administer tests with them. However, more controlled tasks might provide evidence for the phenomena that do not occur in spontaneous speech of young children.

Second, in terms of the acquisition of the DP projection, in addition to the analysis of the articles and possessive *'s*, other determiners and quantifiers should also be analyzed. Moreover, the analysis of the CP structure can be suggested for further research.

More research needs to be conducted with learners in different age groups to find out what actually determines morphological variability in learners' interlanguage.

APPENDIX A-1

Number and Percentage of Copula *be* (NİL)

Sample Recording date	#be	#mbe	#fbe	Total	*Be*%	mbe%	fbe%
S1 6 jan'05	16	1	0	17	94.12	5.88	0.0
S2 14 Jan'05	20	2	2	24	83.33	8.33	8.33
S3 18 Jan'05	8	0	0	8	100.0	0.0	0.0
S414 Feb'05	26	2	7	35	74.29	5.71	20.0
S5 18 Feb'05	24	0	2	26	92.31	0.0	7.69
S6 25 Feb'05	26	1	5	22	81.25	3.12	15.63
S715 Mar'05	30	1	2	33	90.91	3.03	6.06
S8 29 Mar'05	43	0	5	48	89.58	0.0	10.42
S9 6 Apr'05	18	1	3	12	81.82	4.55	13.64
S10 12 Apr'05	31	2	3	36	86.11	5.56	8.33
S11 29 Apr'05	50	1	10	61	81.97	1.64	16.39
S12 3 May'05	77	0	3	80	96.25	0.0	3.75
S1310 May'05	61	6	7	74	82.43	8.11	9.46
S1420 May'05	73	2	7	82	89.02	2.44	8.54
S15 24 May'05	114	0	5	119	95.80	0.0	4.20
S16 31 May'05	100	1	9	110	90.91	0.91	8.18
S17 7 Jun'05	116	3	7	126	92.06	2.38	5.56
S18 16 Jun'05	43	1	5	49	87.76	2.04	10.20
S19 22 Jun'05	38	0	1	39	97.44	0.0	2.56
Total	914	24	83	1021	89.52	2.35	8.13

[3]

[3] # and % be: The number and percentage of copula *be*
and % mbe: The number and percentage of missing copula *be*
and % fbe: The number and percentage of faulty copula *be*
and % cbe: The number and percentage of *be* utterances as in 'They **be** happy'

APPENDIX A-2

Number and Percentage of Copula *be* (AYDA)

Sample Recording date	#be	#mbe	#fbe	#cbe	Total	*be*%	mbe%	fbe%	cbe%
S1 2 Dec'05	2	2	1	0	5	40.0	40.0	40.0	0.0
S2 9 Dec'05	1	0	0	0	1	100.0	0.0	0.0	0.0
S3 6 Jan'05	2	0	1	0	3	66.7	0.0	33.7	0.0
S4 26 Jan'05	8	0	1	0	9	88.9	0.0	1.11	0.0
S5 27 Jan'05	28	0	6	0	34	82.4	0.0	17.6	0.0
S6 14 Feb'05	12	1	3	0	16	75.0	6.3	18.8	0.0
S718 Feb'05	62	4	3	2	71	87.3	5.6	4.2	2.8
S8 25 Feb'05	34	4	7	0	45	75.6	8.9	15.6	0.0
S9 8 Mar'05	30	1	4	0	35	85.7	2.9	11.4	0.0
S10 15 Mar'05	26	4	4	3	37	70.3	10.8	10.8	8.1
S11 22 Mar'05	37	4	4	1	46	80.4	8.7	8.7	2.2
S12 29 Mar'05	23	13	1	3	40	57.5	32.5	2.5	7.5
S13 6 Apr'05	33	1	7	0	41	80.5	2.4	17.1	0.0
S14 12 Apr'05	35	5	3	2	45	77.8	11.1	6.7	4.4
S15 29 Apr'05	77	6	6	0	89	86.5	6.7	6.7	0.0
S16 3 May'05	66	5	13	4	88	75.0	5.7	14.8	4.5
S17 17 May'05	34	5	5	2	46	73.9	10.9	10.9	4.3
S18 24 May'05	79	8	6	1	94	84.0	8.5	6.4	1.1
S19 31 May'05	66	4	5	4	79	83.5	5.1	6.3	5.1
S20 7 Jun'05	104	9	2	2	118	89.9	7.7	1.7	1.7
S21 16 Jun'05	9	0	0	0	9	100.0	0.0	0.0	0.0
S22 22 Jun'05	34	0	4	0	38	89.5	0.0	10.5	0.0
Total	802	76	86	24	988	81.1	7.7	8.7	2.5

APPENDIX A-3

Number and Percentage of Copula *be* (ELİF)

Sample Recording date	#be	#mbe	#fbe	#cbe	Total	*be*%	mbe%	fbe%	cbe%
S1 9 Dec'05	0	0	0	0	0	0.0	0.0	0.0	0.0
S2 6 Jan'05	31	1	3	0	36	86.1	2.8	8.3	2.8
S3 26 Jan'05	11	2	0	1	13	84.6	15.4	0.0	0.0
S414 Feb'05	34	1	6	0	41	82.9	2.4	14.6	0.0
S5 8 Mar'05	23	0	4	0	27	85.2	0.0	14.8	0.0
S6 25 Feb'05	51	2	5	0	59	86.4	3.4	8.5	1.7
S715 Mar'05	31	2	5	1	38	81.6	5.3	13.2	0.0
S8 12 Apr'05	52	2	2	0	57	91.2	3.5	3.5	1.8
S9 29 Apr'05	37	0	5	1	42	88.1	0.0	11.9	0.0
S10 3 May'05	38	0	4	0	42	92.5	0.0	9.5	0.0
S11 10 May'05	22	2	2	0	26	84.6	7.7	7.7	0.0
S12 17 May'05	69	1	4	0	74	93.2	1.4	5.4	0.0
S13 24 May'05	99	5	13	0	117	84.6	4.3	11.1	0.0
S14 1 Jun'05	101	3	1	2	107	94.4	2.8	0.9	1.9
S15 7 Jun'05	84	3	9	0	96	87.5	3.1	3.4	0.0
S16 14 May'05	49	2	7	1	59	83.1	3.4	11.9	1.7
S17 24 Jun'05	20	0	1	0	21	95.2	0.0	4.8	0.0
Total	752	26	71	6	855	85.9	3.0	8.1	0.7

APPENDIX B-1

Number and Percentage of Auxiliary *be* (NİL)

Sample Recording date	#auxbe	#mauxbe	Total	auxbe%	mauxbe%
S1 6 jan'05	20	3	23	86.96	13.4
S2 14 Jan'05	0	2	2	0.0	100.0
S3 18 Jan'05	3	1	4	75.0	25.0
S414 Feb'05	17	7	24	70.83	29.17
S5 18 Feb'05	22	6	28	78.57	21.43
S6 25 Feb'05	34	5	39	87.18	12.82
S715 Mar'05	34	8	42	80.95	19.05
S8 29 Mar'05	53	5	58	91.38	8.62
S9 6 Apr'05	32	11	43	74.42	25.58
S10 12 Apr'05	26	5	31	83.87	16.13
S11 29 Apr'05	33	6	39	84.62	15.38
S12 3 May'05	13	5	18	72.22	27.78
S1310 May'05	13	2	15	86.67	13.33
S1420 May'05	17	0	17	100.0	0.0
S15 24May'05	28	5	33	84.85	15.15
S16 31May'05	24	4	28	85.71	14.29
S17 7 Jun'05	12	1	13	92.31	7.69
S18 16 Jun'05	8	0	8	100.0	0.0
S19 22 Jun'05	11	3	14	78.57	21.43
Total	400	79	479	83.51	16.49

4

[4] # and % auxbe: The number and percentage of auxiliary *be*
and % mauxbe: The number and percentage of missing auxiliary *be*

APPENDIX B-2

Number and Percentage of Auxiliary *be* (AYDA)

Sample Recording date	#auxbe	#mauxbe	Total	auxbe%	mauxbe%
S1 2 Dec'05	1	3	4	25.0	75.0
S2 9 Dec'05	3	1	4	75.0	25.0
S3 6 Jan'05	0	0	0	0.0	0.0
S4 26 Jan'05	4	2	6	66.67	33.33
S5 27 Jan'05	11	8	19	57.89	42.11
S6 14 Feb'05	5	6	11	45.45	54.55
S718 Feb'05	16	32	48	33.33	66.67
S8 25 Feb'05	19	11	30	63.33	36.67
S9 8 Mar'05	34	14	48	70.83	29.17
S10 15 Mar'05	13	22	35	37.14	62.86
S11 22 Mar'05	7	7	14	50.0	50.0
S12 29 Mar'05	11	9	20	55.0	45.0
S13 6 Apr'05	11	6	17	64.71	35.29
S14 12 Apr'05	20	17	37	54.05	45.95
S15 29 Apr'05	19	13	32	59.38	40.63
S16 3 May'05	15	2	17	88.24	11.76
S17 17 May'05	21	4	25	84.0	16.0
S18 24 May'05	42	15	57	73.68	26.32
S19 31 May'05	16	7	23	69.57	30.43
S20 7 Jun'05	30	7	37	81.08	18.92
S21 16 Jun'05	6	1	27	85.71	14.29
S22 22 Jun'05	18	5	23	78.26	21.74
Total	322	192	514	62.65	37.35

APPENDIX B-3

Number and Percentage of Auxiliary *be* (ELİF)

Sample Recording date	#auxbe	#mauxbe	Total	auxbe%	mauxbe%
S1 9 Dec'05	0	3	3	0.0	100.0
S2 6 Jan'05	14	6	20	70.0	30.0
S3 26 Jan'05	7	3	10	70.0	30.0
S414 Feb'05	17	0	17	100.0	0.0
S5 8 Mar'05	8	3	11	72.73	27.27
S6 25 Feb'05	30	4	34	88.24	11.76
S715 Mar'05	39	10	49	79.59	20.41
S8 12 Apr'05	13	2	15	86.67	13.33
S9 29 Apr'05	13	5	18	72.22	27.78
S10 3 May'05	7	1	8	87.50	12.50
S11 10May'05	2	2	4	50.0	50.0
S12 17 May'05	14	1	15	93.33	6.67
S13 24 May'05	20	0	20	100.0	0.0
S14 1 Jun'05	12	1	13	92.31	7.69
S15 7 Jun'05	18	1	19	94.74	5.26
S16 14 May'05	20	0	20	100.0	0.0
S17 24 Jun'05	9	0	9	100.0	0.0
Total	243	42	285	85.26	15.74

APPENDIX C-1

Number and Percentage of Null Subjects vs Overt Subjects (NİL)

Sample Recording date	# null	#overt	Total	null%	overt%
S1 6 jan'05	0	78	78	0.0	100.0
S2 14 Jan'05	0	71	71	0	100.0
S3 18 Jan'05	1	56	57	1.75	98.25
S414 Feb'05	0	86	86	0.0	100.0
S5 18 Feb'05	1	146	147	0.68	99.32
S6 25 Feb'05	2	164	166	1.20	98.80
S715 Mar'05	0	189	189	0.0	100.0
S8 29 Mar'05	0	240	240	0.0	100.0
S9 6 Apr'05	1	138	139	0.72	99.28
S10 12 Apr'05	2	126	128	1.56	98.44
S11 29 Apr'05	1	233	234	0.43	99.57
S12 3 May'05	1	190	191	0.52	99.48
S1310 May'05	1	224	225	0.44	99.56
S1420 May'05	1	281	282	0.35	99.65
S15 24 May'05	2	330	332	0.60	99.40
S16 31 May'05	3	348	351	0.85	99.15
S17 7 Jun'05	2	417	419	0.48	99.52
S18 16 Jun'05	2	171	173	1.16	98.84
S19 22 Jun'05	0	160	160	0.0	100.0
Total	20	3648	3668	0.55	99.45

5

[5] # and % null: The number and percentage of the null subjects

and % overt: The number and percentage of the overt subjects

APPENDIX C-2

Number and Percentage of Null Subjects vs Overt Subjects (AYDA)

Sample Recording date	#null	#overt	Total	null%	overt%
S1 2 Dec'05	12	29	41	29.27	70.73
S2 9 Dec'05	1	13	14	7.14	92.86
S3 6 Jan'05	1	17	18	5.56	94.44
S4 26 Jan'05	1	59	60	1.67	98.33
S5 27 Jan'05	4	312	316	1.27	98.73
S6 14 Feb'05	6	126	132	4.55	96.45
S718 Feb'05	6	426	432	1.39	98.61
S8 25 Feb'05	6	272	278	2.16	17.84
S9 8 Mar'05	1	235	236	0.42	99.58
S10 15 Mar'05	6	231	237	2.53	97.47
S11 22 Mar'05	10	282	292	3.42	96.58
S12 29 Mar'05	10	225	235	4.26	95.74
S13 6 Apr'05	5	197	202	2.48	97.52
S14 12 Apr'05	12	339	351	3.42	96.58
S15 29 Apr'05	7	517	524	1.34	99.66
S16 3 May'05	14	328	342	4.09	95.91
S17 17 May'05	9	287	296	3.04	96.96
S18 24 May'05	20	534	554	3.61	96.39
S19 31 May'05	15	383	398	3.74	96.23
S20 7 Jun'05	8	498	506	1.58	98.42
S21 16 Jun'05	1	75	76	1.32	98.68
S22 22 Jun'05	3	183	186	1.61	98.39
Total	158	5568	5726	2.76	97.24

APPENDIX C-3

Number and Percentage of Null Subjects vs Overt Subjects (ELİF)

Sample Recording date	#null	#overt	Total	null%	overt%
S1 9 Dec'05	0	4	4	0.0	100.0
S2 6 Jan'05	3	92	95	3.2	96.8
S3 26 Jan'05	0	53	53	0.0	100.0
S414 Feb'05	2	115	117	1.7	98.3
S5 8 Mar'05	1	96	97	1.0	99.0
S6 25 Feb'05	0	211	211	0.0	100.0
S715 Mar'05	2	154	156	1.3	98.7
S8 12 Apr'05	0	160	160	0.0	100.0
S9 29 Apr'05	1	169	170	0.6	99.4
S10 3 May'05	3	130	133	2.3	97.7
S11 10May'05	2	92	94	2.1	97.9
S12 17 May'05	3	171	174	1.7	98.3
S13 24 May'05	3	315	318	0.9	99.1
S14 1 Jun'05	3	294	297	1.0	99.0
S15 7 Jun'05	2	295	297	1.3	98.7
S16 14 May'05	4	207	211	1.9	98.1
S17 24 Jun'05	0	114	144	0.0	100.0
Total	29	2670	2699	1.1	98.9

APPENDIX C-4

Number of Pronominal Subjects (NİL)

Sample Recording date	I	you	s/he	it	We	they	Total
S1 6 jan'05	5	0	36	1	0	11	53
S2 14 Jan'05	7	24	10	4	0	0	45
S3 18 Jan'05	9	2	3	0	0	2	16
S414 Feb'05	6	0	53	3	0	7	69
S5 18 Feb'05	13	6	66	5	0	4	94
S6 25 Feb'05	7	34	79	3	1	9	133
S715 Mar'05	48	3	54	8	1	18	132
S8 29 Mar'05	61	4	67	15	2	16	165
S9 6 Apr'05	43	1	30	8	2	16	100
S10 12 Apr'05	19	1	21	15	1	7	64
S11 29 Apr'05	50	3	64	25	0	1	143
S12 3 May'05	56	8	21	25	0	6	116
S1310 May'05	70	13	7	29	1	17	137
S1420 May'05	114	6	16	38	6	8	188
S15 24 May'05	100	12	11	58	16	22	219
S16 31 May'05	129	20	2	20	6	11	188
S17 7 Jun'05	183	29	4	71	20	10	317
S18 16 Jun'05	87	6	2	16	7	12	130
S19 22 Jun'05	56	13	6	12	6	14	107
Total	1063	185	522	356	69	191	2416

APPENDIX C-5

Number of Pronominal Subjects (AYDA)

Sample Recording date	I	you	s/he	it	we	they	Total
S1 2 Dec'05	5	0	8	0	0	0	13
S2 9 Dec'05	1	0	3	1	0	0	5
S3 6 Jan'05	6	0	0	2	0	0	8
S4 26 Jan'05	30	0	0	4	1	0	35
S5 27 Jan'05	16	6	0	16	1	25	64
S6 14 Feb'05	7	9	2	11	0	8	37
S718 Feb'05	52	3	9	49	2	46	161
S8 25 Feb'05	32	36	6	11	8	16	109
S9 8 Mar'05	19	16	5	5	0	20	65
S10 15 Mar'05	13	7	6	2	0	21	49
S11 22 Mar'05	51	8	3	11	1	23	97
S12 29 Mar'05	35	5	20	11	1	7	79
S13 6 Apr'05	40	2	10	10	3	12	78
S14 12 Apr'05	43	47	35	10	2	27	124
S15 29 Apr'05	77	26	15	35	1	28	182
S16 3 May'05	52	23	12	28	2	13	130
S17 17 May'05	60	10	7	21	1	23	122
S18 24 May'05	72	42	15	23	7	36	195
S19 31 May'05	44	25	10	18	5	15	117
S20 7 Jun'05	58	41	4	35	0	21	159
S21 16 Jun'05	37	3	0	3	0	3	46
S22 22 Jun'05	102	18	9	8	3	5	146
Total	853	287	179	315	38	349	2021

APPENDIX C 6

Number of Pronominal Subjects (ELİF)

Sample Recording date	I	You	s/he	it	we	they	Total
S1 9 Dec'05	0	0	0	0	0	3	3
S2 6 Jan'05	8	5	42	8	0	1	64
S3 26 Jan'05	17	4	8	1	0	8	28
S414 Feb'05	20	12	44	4	1	16	97
S5 8 Mar'05	10	16	29	3	0	9	67
S6 25 Feb'05	21	37	21	13	3	13	108
S715 Mar'05	7	16	8	13	1	16	61
S8 12 Apr'05	30	10	31	7	3	22	103
S9 29 Apr'05	39	9	8	23	2	19	100
S10 3 May'05	31	3	17	10	1	14	76
S11 10May'05	30	9	12	8	1	8	68
S12 17 May'05	49	18	13	22	5	20	122
S13 24 May'05	88	58	36	20	8	37	242
S14 1 Jun'05	40	17	27	28	8	44	164
S15 7 Jun'05	91	27	32	29	8	25	212
S16 14 May'05	53	13	26	25	4	6	127
S17 24 Jun'05	27	7	8	10	4	7	63
Total	555	261	362	224	48	268	1718

APPENDIX D

A Breakdown of Verbs in 3sg – s Contexts

(a) Nil:

* The following list shows that in samples 1-19 (Jan 6-Jun 22'05) of the 153 inflected with the 3sg –*s*, there are 38 different verbs.

love	look	need	has
go	smell	wake	catch
eat	like	say	live
want	bite	make	fall
feel	help	cut	leave
come	begin	try	stop
call	swim	see	get
give	hit	run	stay
mean	do	*spik(skip)	belong
put	Speak		

(b) Ayda:

* The following list shows that in samples 1-22 (Dec 02- Jun 22'05) of the 63 inflected with the 3sg –*s*, there are 24 different verbs.

get	help	see	do
come	go	have	hide
want	give	love	start
colour	think	live	mean
ride	like	swim	put
need	buy	sing	sleep

(c) Elif:

* The following list shows that in samples 1-17 (Dec 09- Jun 22'05) of the 82 inflected with the 3sg *–s*, there are 29 different verbs.

want	get	smell	love
like	has	sleep	live
stay	wear	make	do
look	follow	come	Speak
*haves	move	happen	Take
see	talk	think	tell
hear	work	*wake ups	start
say			

APPENDIX E-1

A Breakdown of Irregular Verbs in Past Tense Contexts (NİL)

	Uninflected Verbs (irregular past)		**Inflected verbs (irregular past)**	
Recording date	**Total**	**Verb**	**Total**	**Verb**
S1 6 Jan '05	2	fall down(2)	1	broke
S2 14 Jan '05	0			
S3 18 Jan'05	7	see,go,bite,run,**say**(2),swim	2	**said**,got
S4 14 Feb'05	4	go,fall down, have,wakeup	4	saw(2),broke,read,
S5 18 Feb'05	2	catch(2),run,go(2)	21	saw(2),said(13),swam,told(3),sat, came
S6 25 Feb'05	16	**run,**know,go(6),eat,sleep(2),tell, **say**,have,catch,feel	6	**said**(5),**ran**
S7 15 Mar'05	10	fall(4),run(2),**eat**(4)	15	Got(3),told,cut(2),**ate,**did,swam (2),said(2),hurt,came(2)
S8 29 Mar'05	15	Wakeup,**say**,fall(2),eat(2),come (2),play,give,buy,find,take,**have**, leave	9	got,**said(**4),**had**(2),broke(2)
S9 6 Apr'05	12	fall(3),stick,tell,eat(2),catch, throw**, go(**2),take	11	sat,broke,found,**went**(2),ran(2), said(3),got
S10 12 Apr'05	6	make,eat,**begin(**2),fall,come	15	said(10),put,broke(2),**began**,put
S11 29 Apr'05	26	fall(6),**go**(11),**see**(2),sleep,**say**, give,hold,**come**,eat	33	**went**(6),**said(**11),thought,**came** (6),brought,**saw**(5),told(2),ran (2),had
S12 3 May'05	6	win,**say,make**,go(2),eat	25	**said(**13),went(4),**made,**came(3),put, took,saw,ran
S13 10 May'05	6	run,**say**,get(2),bring**,eat**	25	**Said**(17),found,saw,**ate**,went(2), came(3)
S14 20 May'05	14	**do**,give(2),cry,**have(**2),**get**(2), sleep,take,go,fall,come,wear	16	**did**(6),said(7), hit,**got,had**
S15 24 May'05	19	**Have**(3),take(2),**give**,eat(3),stick ,go(3),**see**(2),get,**fall**,hold,**find**	34	**saw**(2),said(19),**gave**(2),though,did (5),came,**found,had**,**fell**,put
S16 31 May'05	8	**make**,come(4),**see**(2),**say**	40	**made,said**(28),thought,put, forgot(2),ran,went,**saw**,had (3),hit
S17 7 Jun'05	15	**see(**3),tell,**have**(2),eat(3),**come**, make(2),fall(3)	54	went(3),forgot,said(19**),saw**(4), **had**(9),found,did(4),put(4), **came**,read(2),sat(6)
S18 16 Jun'05	8	**find**,take,see,leave,buy,**get**(2), have	17	did,cut(2),**found**(6),said(5),put, hurt,**got**

S19 22 Jun'05	13	see,fly,have(2),shoot(2),**come**, think,know,buy(2),**say**,forget	9	**said**(6),**came,**put,did
Total	189		337	

APPENDIX E-2

A Breakdown of Irregular Verbs in Past Tense Contexts (AYDA)

Sample Recording date	**Uninflected Verbs (irregular past)** Total	Verb	**Inflected verbs (irregular past)** Total	Verb
S1 1 Dec'04	7	**go**,sit,come,wake up,run away,make,give	8	put(2),broke,said(3), slept,**went**
S2 9 Dec'04	0		0	
S3 6 Jan'05	4	run away,sleep,come, wake up	1	saw
S4 26 Jan'05	1	see	3	went,swam, ran
S5 27 Jan'05	37	give(2), have(6),go(5),swim,eat(2), take,get,catch,**fall**(6),say (2),hold,**think(**3),see, run(2),come(2),ride	31	saw(2),woke up(4), said(22), forgot,**fell,thought**
S6 14 Feb'05	11	sleep,go(3),want,eat(2),fall ,swing(2),catch	3	said(2),got
S7 18 Feb'05	14	forget(4),break,go(4),take (2),have(3)	6	came,thought,saw(2),shot,ran
S8 25 Feb'05	16	wakeup,take(2),**see**(2),go (3),give,eat,swim(2),have (3)	24	said(6),found,**saw(**7),threw(2),flew(5), came(3)
S9 8 Mar'05	7	forget,take,go(2),have(2**), find**	8	saw(2),**found**(2),said,ate,flew ,ran
S10 15 Mar'05	9	**see**,wake up, catch(2), fall,run(2), have,eat	10	said(2),ran(3),**saw**,forgot,cut(2),came
S11 22 Mar'05	15	**see(2),**run,fall,swim,make, sing,sleep,drink,forget,eat, **come**,take,bring,get	9	**saw,**got,said(4),lost, **came**,had
S12 29 Mar'05	8	eat(3),come(3),buy,**see**	12	said(7), fell,forgot, brought,ran,**saw**
S13 6 Apr'05	18	go(3),draw,forget(3),**have**, run(6),fall(2),do	9	said,**had**,got(2),put,saw(2), read,broke
S14 12 Apr'05	13	eat(7),**go**,give,catch,sleep, wake up(2)	35	said(20),cut(2),**went**(2),thought,saw(3), rode(3),came,read,took,forgot

S15 29 Apr05	31	go(13),have(3),make(3), take(2),fall,**see(**3),sit,sing, **run**,send,get,say	33	said(12),came(4),**ran**(2),did(2),read,hit(2), put(2)hurt,**saw(**4),told,found(2)
S16 3May'05	11	eat,come,fall(2),forget(3**), do**(2),have,run	15	put(3),said(6),took,hit,read, **did**,broke(2)
S17 17 May'05	16	go(3),give(2),draw(2),have (4),eat(2),take,**say**,come	4	**said**,brought (2),cut
S18 24 May'05	23	blow,come(2),go(3),catch, wake(2**),run**(2),fall(4), have(2),find,make(2),give, sleep(2)	18	got,put(6),thought(2),saw,took, said(2),brought,fell,hurt,left,**ran**
S19 31 May'05	28	go(4),come(4),**say**(3),**run**, have(4),**see(**4),make,do, drink,wake,think,give, dig(2)	25	read(2),put(2),**ran**,**said(**16), forgot,**saw**,sat,threw
S20 7 Jun'05	24	fall(4),come(5),think(2),**go** (3**),see**(5),have,give,wake (2),catch,have(2),see	15	cut,put(3),**went**,said (7),ran,**saw**(2)
S21 16 Jun'05	3	have(2),see	9	said(2),found (6), put
S22 22 Jun'05	15	fall(3),make(2),**say**,do,go (2),buy(4),have,come	12	woke,saw,**said**(2), found(7),forgot
Total	311		290	

APPENDIX E-3

A Breakdown of Irregular Verbs in Past Tense Contexts (ELİF)

(ELİF) Recording date	**Uninflected Verbs (irregular past)** Total	Verb	**Inflected verbs (irregular past)** Total	Verb
S1 9 Dec'04	0		0	
S2 6 Jan'05	8	drink,make,**go(**3),wake	20	said(10),came,**went**(4), put(4) ran
S3 14 Jan'05	6	buy(2),have,come,**say,**eat	3	found,**said**,ran
S4 26 Jan'05	1	fall	7	said(2),got,swam,saw, broke,came
S5 14 Feb'05	6	do,eat,find,say,make**,tell**	9	said(6),lost,**told**,came
S6 8 Mar'05	7	**get,**run,come(2),eat,fall,**take**	22	said(14),ran,**got**,found, spoke,went,flew,**took**,told
S7 15 Mar'05	19	wake(2),fall,take(5),give(2),go,catch, come(2),make,see,**say**,eat(2)	8	put,ran(2),**said**(3),took,hit
S8 12 Apr'05	10	**go,do**(2),eat(2),**get**,make,take, read,come	12	**Did,**put(2),said(4),sat, came,**got**,flew,**wen**t
S9 29 Apr'05	20	**see**(3),eat(3),go(3),shoot,**run**(3), fall(2),bring,**have**,make(2),hear	39	put,thought,**had**(7),said (19),got,flew,came(2), bought,**saw**(2),left,**ran**, made(2)
S10 3 May'05	12	**come**,go(3),**see**(3),blow(2),**take**, fall,**say**	29	made(2),**saw**(4),did(3), **came**(3),**said**(9),got(3), shone(3),**took**,ate
S11 10 May'05	7	**make**,**say,**catch(3),take,do	13	**said**(2),found,saw(2), did(5),**made**,got,forgot
S12 17 May'05	6	swim(2),**come**,make,fall,wake	6	broke(2),said,flew,left, **came**
S13 24 May'05	12	sleep,fall,**come,say**(3),make,do (2)wake,ride,read	11	got,**said**(4),broke(2), **came**(2),cut,ate
S14 1 Jun'05	13	drink,go(2),grow**,run,see**(3), sleep,bring,give,bite,**come**	67	said(42),cost,told(2),went (4),put,did(c,**came,saw**(4),m ade(2),ate(6),**ran**(2)
S15 7 Jun'05	10	go,do,**eat**(2),**see**(2),give,wake, **come**,fall	26	did,swam,**ate(**2),put,**wen** said(11),made,**saw**(3), **came**,ran,broke,got,cut
S16 14 Jun'05	9	go,give,sit(2),have(2),make,say, take	15	ate(3),put(4),said(2), swam(4)did,came
S17 24 Jun'05	5	**say,have,do**(2),make	16	came(2),**had,**gave,bought, ate(3),lost,saw(3),**said**(3),**did**
Total	151		303	

APPENDIX F-1

A Breakdown of Regular Verbs in Past Tense Contexts (NİL)

	Uninflected Verbs (regular past)		**Inflected verbs (regular past)**	
Sample Recording date	**Total**	**Verb**	**Total**	**Verb**
S1 6 Jan '05	1	cry	10	pushed(5),pulled, jumped,called(2),finished
S2 14 Jan '05	1	look	0	
S3 18 Jan'05	2	**jump**(2)	3	**jumped**,scared,killed
S4 14 Feb'05	3	want(3)	3	called(3)
S5 18 Feb'05	2	love,watch	2	jumped (2)
S6 25 Feb'05	2	walk,like	6	cried(3),missed,opened,danced
S7 15 Mar'05	2	**want**,look	3	jumped,showed,**wanted**
S8 29 Mar'05	4	scratch,play,**push,** watch	3	climbed,**pushed,**called
S9 6 Apr'05	3	climb(3)	2	cried,dropped
S10 12 Apr'05	2	want(2)	5	walked(5)
S11 29 Apr'05	3	like,stop,**play**	14	looked(3),climbed,jumped,danced, **played**,pushed,changed,shouted(4), kicked
S12 3 May'05	11	play,walk,shout, quack,push,want(5), call	13	called(2),looked(2),jumped(2), laughed,bumped,carried,popped, quacked(2),cracked,tracked
S13 10 May'05	7	tidy(2),look(2), want(3)	14	opened(2),closed,finished(4),cooked (3),looked,squished,loved,bumped
S14 20 May'05	2	cry,play	2	crashed,finished
S15 24 May'05	11	work,want(2),crash, cry(2)walk,**jump**(2) ,love(2)	1	**jumped**
S16 31 May'05	5	touch,get,cry,jump, want	5	cracked,pulled,crashed,married,lived
S17 7 Jun'05	8	close,like(2),pick, crack,finish,cry,kill	3	played,lived,watched
S18 16 Jun'05	2	open.crash	2	dropped,finished
S19 22 Jun'05	3	finish,close**,crash**	7	painted,followed,opened,rubbed, loved,**crashed**,happened
Total	74		98	

APPENDIX F-2

A Breakdown of Regular Verbs in Past Tense Contexts (AYDA)

Uninflected Verbs (regular past)			**Inflected verbs (regular past)**	
Sample Recording date	Total	Verb	Total	Verb
S1 1 Dec'04	2	try,want	1	cried
S2 9 Dec'04	0		0	
S3 6 Jan'05	0		0	
S4 26 Jan'05	0		0	
S5 27 Jan'05	11	work,play,have,pump, **open**,dress,lie,**cry**,want, bump,wait	14	shouted,asked(3),tied,laughed,**opened** (2),moved,**cried**(3),started,said
S6 14 Feb'05	4	look,want(2),start	1	pushed
S7 18 Feb'05	2	color,walk	4	started,dropped,cried,played
S8 25 Feb'05	5	want(2),play(2),need	6	kissed(2),watched,wrapped,decided, scared
S9 8 Mar'05	3	watch(2),lie	0	
S10 15 Mar'05	3	want,pull,look	1	happened
S11 22 Mar'05	4	joke,start,crash,play	3	played(2),happened
S12 29 Mar'05	7	shout,want(3),turn,look, need	1	happened
S13 6 Apr'05	6	**cry**,stop,want,shout,look, laugh	2	ripped,**cried**
S14 12 Apr'05	9	open,want(5),learn,live, watch	3	jumped,grabbed,loved
S15 29 Apr05	24	jump(3),	33	said(12),came(4),ran(2),did(2),read,hit (2),put(2),hurt,saw(4),told,found(2)
S16 3May'05	9	**kill**,call,notice,jump,drop ,play,talk,ask,want	3	cried,begged,**killed**
S17 17 May'05	7	**look**(2),pack,want(3), dance	1	**looked**

S18 24 May'05	24	play(3),touch,look(6), pick,hop,cook,help,drop, **laugh**,close,wait,walk(2)	4	cried(2),happened,**laughed**
S19 31 May'05	22	look(8),jump,crash,stop (2),play,turn,love(2), smile,cook,share,want(2)	5	happened,helped,saved,lied,ripped
S20 7 Jun'05	18	want(11),look(3),cook, talk,need,shout	1	lived
S21 16 Jun'05	0		4	happened(2),picked,finished
S22 22 Jun'05	2	want,watch	2	finished,helped
Total	311		290	

APPENDIX F-3

A Breakdown of Regular Verbs in Past Tense Contexts (ELİF)

Sample Recording date	Uninflected Verbs (regular past) Total	Verb	Inflected verbs (regular past) Total	Verb
S1 9 Dec'04	0		0	
S2 6 Jan'05	8	want,need,stay,look,play,like(2),**try**	3	kissed,happened,**tried**
S3 14 Jan'05	0		1	cried
S4 26 Jan'05	0		1	pushed
S5 14 Feb'05	0		7	cried(3), popped,bumped,asked, stopped
S6 8 Mar'05	5	start,love,look,want,ski	5	happened,popped,rained(2), stopped
S7 15 Mar'05	6	change,jump,crash,look,try,start	5	pulled,wanted,shouted, bumped,happened
S8 12 Apr'05	4	want(3),look	2	cried,scared
S9 29 Apr'05	6	like,cook,**crash**,dance,want,finish	4	played,**crashed**,happened, missed
S10 3 May'05	3	pull,want,rush	9	happened(4),tied,started, killed,bumped,crashed
S11 10 May'05	4	start(3),crash	3	worked,looked(2)
S12 17 May'05	3	melt,stop,laugh	4	liked,happened,loved, laughed
S13 24 May'05	7	paint(3),clean,**open**,look,cry	10	closed,shouted,happened(3), finished,**opened**(2), splashed,watched
S14 1 Jun'05	5	want(3),climb,fix	7	started,missed,happened, yawned,laughed(2),changed(6), popped(2),lied,started
S15 7 Jun'05	5	look(2),start(2),want	6	popped,lied,started,finished (2)
S16 14 Jun'05	9	jump,listen,open(2),**look**,hate,watch, splash(2)	9	played,happened,popped, finished(2),colored,lived, **looked**,loved
S17 24 Jun'05	1	open	8	stopped,watched,liked, happened,laughed,finished (2), learned

Total	66	84

APPENDIX G-1

A Breakdown of Overgeneralised Past Tense Forms (NİL)

Sample Recording date	**Total**	**Verb**
S1 6 Jan '05	0	
S2 14 Jan '05	0	
S3 18 Jan'05	0	
S4 14 Feb'05	4	waked up, sleeped, breaked(2)
S5 18 Feb'05	2	broked, broked
S6 25 Feb'05	6	goed, waked up(2), sleeped (3)
S7 15 Mar'05	6	doed,putted, swimmed (2), flied,falled
S8 29 Mar'05	0	
S9 6 Apr'05	3	flied(3)
S10 12 Apr'05	1	brokes
S11 29 Apr'05	6	camed (3), goed,catched
S12 3 May'05	3	camed(2), goed
S13 10 May'05	4	sawed(2), buyed,maked
S14 20 May'05	8	seed(3), telled(3),goed,sawed
S15 24 May'05	4	seed (4)
S16 31 May'05	2	catched,seed
S17 7 Jun'05	9	taked,waked,seed(2), buyed(4), maked
S18 16 Jun'05	4	breaked, seed(2),telled
S19 22 Jun'05	5	sawed(2), choosed(2), goed
Total	67	

APPENDIX G-2

A Breakdown of Overgeneralised Past Tense Forms (AYDA)

Sample Recording date	**Total**	**Verb**
S1 1 Dec'04	0	
S2 9 Dec'04	0	
S3 6 Jan'05	0	
S4 26 Jan'05	0	
S5 27 Jan'05	0	
S6 14 Feb'05	1	flewed
S7 18 Feb'05	0	
S8 25 Feb'05	0	
S9 8 Mar'05	0	
S10 15 Mar'05	0	
S11 22 Mar'05	0	
S12 29 Mar'05	0	
S13 6 Apr'05	2	flaw, falled
S14 12 Apr'05	1	sawed
S15 29 Apr05	2	goed,taked
S16 3May'05	1	putted
S17 17 May'05	0	
S18 24 May'05	2	flewed,goed
S19 31 May'05	1	seed
S20 7 Jun'05	1	comed
S21 16 Jun'05	0	
S22 22 Jun'05	1	sawed
Total	12	

APPENDIX G-3

A Breakdown of Overgeneralised Past Tense Forms (ELİF)

Sample Recording date	**Total**	**Verb**
S1 9Dec'04	0	
S2 6 Jan'05	0	
S3 14Jan'05	0	
S4 26Jan'05	0	
S5 14 Feb'05	0	
S6 8 Mar'05	0	
S7 15 Mar'05	0	
S8 12 Apr'05	0	
S9 29 Apr'05	2	weared,goed
S10 3 May'05	5	brokened, blowed(2),taked,buyed
S11 10 May'05	1	runned
S12 17 May'05	1	growed up
S13 24 May'05	6	waked up, broked, buyed, seed(2), comed
S14 1 Jun'05	7	runned(2),seed,camed, waked up, ranned,haved
S15 7 Jun'05	8	swimmed, blowed(2), growed, sawed
S16 14 Jun'05	3	leaved, blowed, growed
S17 24 Jun'05	4	sleeped(2), buyed, doed
Total	37	

APPENDIX H-1

Number and Percentage of Article Use (NİL)

Sample Recording date	#supp	#omis	#subs	Total	supp%	omis%	subs%
S1 6 jan'05	39	22	1	62	62.90	35.48	1.61
S2 14 Jan'05	17	11	0	28	60.71	39.29	0.0
S3 18 Jan'05	23	12	0	35	65.71	34.29	0.0
S414 Feb'05	28	14	0	42	66.67	30.33	0.0
S5 18 Feb'05	56	34	0	90	62.22	37.78	0.0
S6 25 Feb'05	59	21	0	80	73.75	26.25	0.0
S715 Mar'05	63	32	0	95	66.32	30.68	0.0
S8 29 Mar'05	85	39	0	124	68.55	31.45	0.0
S9 6 Apr'05	43	37	0	80	53.75	46.25	0.0
S10 12 Apr'05	42	27	1	70	60.0	38.57	1.43
S11 29 Apr'05	92	19	6	117	78.68	16.24	5.13
S12 3 May'05	55	26	1	82	67.07	31.71	1.22
S1310 May'05	85	49	2	136	62.50	36.03	1.47
S1420 May'05	77	48	3	128	60.16	37.50	2.34
S15 24 May'05	138	75	1	214	64.49	35.05	0.47
S16 31 May'05	149	45	2	196	76.02	22.96	1.02
S17 7 Jun'05	108	62	6	176	61.36	35.23	3.41
S18 16 Jun'05	43	10	3	56	76.79	17.86	5.36
S19 22 Jun'05	36	17	2	55	65.45	30.91	3.64
Total	1238	600	28	1866	66.35	32.15	1.50

[6]

[6] # and % supp: The number and percentage of the suppliance of the definite and the indefinit article together
and % omis: The number and percentage of the omission of the definite and the indefinite article
#and % subs: The number and percentage of substitution errors

APPENDIX H-2

Number and Percentage of Article Use (AYDA)

Sample Recording date	#supp	#omis	#subs	Total	supp%	omis%	sub%
S1 2 Dec'05	11	21	0	32	34.38	65.63	0.0
S2 9 Dec'05	8	4	0	12	66.67	33.33	0.0
S3 6 Jan'05	9	4	0	13	69.23	30.77	0.0
S4 26 Jan'05	23	1	0	24	95.83	4.17	0.0
S5 27 Jan'05	131	11	3	45	90.34	7.59	2.07
S6 14 Feb'05	46	7	0	53	86.79	13.21	0.0
S718 Feb'05	152	33	5	190	80.0	17.37	2.63
S8 25 Feb'05	96	12	0	108	88.89	11.11	0.0
S9 8 Mar'05	101	12	2	115	87.83	10.43	1.74
S10 15 Mar'05	85	15	3	103	82.52	14.56	2.91
S11 22 Mar'05	119	41	2	162	73.46	25.31	1.23
S12 29 Mar'05	68	27	1	96	70.83	28.13	1.04
S13 6 Apr'05	77	19	1	97	79.38	19.59	1.03
S14 12 Apr'05	130	20	0	150	86.67	13.33	0.0
S15 29 Apr'05	131	25	2	158	82.91	15.82	1.27
S16 3 May'05	76	24	0	100	76.0	24.0	0.0
S17 17 May'05	78	31	1	110	70.91	28.18	0.91
S18 24 May'05	114	33	5	152	75.0	21.71	3.29
S19 31 May'05	118	33	1	152	77.63	21.71	0.66
S20 7 Jun'05	126	14	0	140	90.0	10.0	0.0
S21 16 Jun'05	17	3	1	21	80.95	14.29	4.76
S22 22 Jun'05	62	12	0	74	83.78	16.22	0.0
Total	1778	402	27	2207	80.57	18.21	1.22

APPENDIX H-3

Number and Percentage of Article Use (ELİF)

Sample Recording date	#supp	#omis	#subs	Total	supp%	omis%	sub%
S1 9 Dec'05	2	5	0	7	28.57	71.43	0.0
S2 6 Jan'05	37	21	3	61	60.66	34.43	4.92
S3 26 Jan'05	27	13	0	40	67.50	32.50	0.0
S414 Feb'05	31	10	2	43	72.09	23.26	4.65
S5 8 Mar'05	28	11	0	39	71.79	28.21	0.0
S6 25 Feb'05	134	22	0	156	85.90	14.10	0.0
S715 Mar'05	131	28	3	162	80.86	17.28	1.85
S8 12 Apr'05	103	28	0	131	78.63	21.37	0.0
S9 29 Apr'05	118	27	0	145	81.38	18.62	0.0
S10 3 May'05	91	23	1	115	79.13	20.0	0.87
S11 10May'05	25	17	0	42	59.52	40.48	0.0
S12 17 May'05	57	32	1	90	63.33	35.56	1.11
S13 24 May'05	98	28	2	128	76.56	21.88	1.56
S14 1 Jun'05	137	35	3	175	78.29	20.0	1.71
S15 7 Jun'05	102	33	0	135	75.56	24.44	0.0
S16 14 May'05	54	26	0	80	67.50	32.50	0.0
S17 24 Jun'05	36	6	1	43	83.72	13.95	2.33
Total	1211	365	16	1592	76.07	22.93	1.01

APPENDIX H-4

Number of Definite and Indefinite Articles (NİL)

Sample Recording date	#‘the’	#m’the’	#in ‘a’	#min ‘a’	#subst	Total
S1 6 jan’05	34	17	5	5	1	62
S2 14 Jan’05	12	3	5	8	0	28
S3 18 Jan’05	22	7	1	5	0	35
S414 Feb’05	16	12	12	2	0	42
S5 18 Feb’05	40	29	16	5	0	90
S6 25 Feb’05	41	16	18	5	0	80
S715 Mar’05	59	25	4	7	0	95
S8 29 Mar’05	57	25	28	14	0	124
S9 6 Apr’05	34	20	9	17	0	80
S10 12 Apr’05	32	21	10	6	1	70
S11 29 Apr’05	72	12	20	7	6	117
S12 3 May’05	46	20	9	6	1	82
S1310 May’05	53	24	32	25	2	136
S1420 May’05	50	24	27	24	3	128
S15 24 May’05	109	40	29	35	1	214
S16 31 May’05	118	32	31	13	2	196
S17 7 Jun’05	67	23	41	39	6	176
S18 16 Jun’05	31	8	12	2	3	56
S19 22 Jun’05	18	13	18	4	2	55
Total	911	371	327	229	28	1866

[7]

[7] #‘the’: The number of the definite article ‘the’
m’the’: The number of the missing definite article ‘the’
#in ‘a’: The number of the indefinite article ‘a’
m in ‘a’: The numberof the missing indefinite article ‘a’
subs: The number of the substitution errors

APPENDIX H-5

Number of Definite and Indefinite Articles (AYDA)

Sample Recording date	#‘the’	#m’the’	# in ‘a’	#min’a’	#subst	Total
S1 2 Dec’05	6	9	5	12	0	32
S2 9 Dec’05	6	2	2	2	0	12
S3 6 Jan’05	2	3	7	1	0	13
S4 26 Jan’05	15	1	8	0	0	24
S5 27 Jan’05	104	7	27	4	3	145
S6 14 Feb’05	35	4	11	3	0	53
S718 Feb’05	83	13	69	20	5	190
S8 25 Feb’05	56	5	10	7	0	108
S9 8 Mar’05	75	9	26	3	2	115
S10 15 Mar’05	61	10	24	5	3	103
S11 22 Mar’05	79	26	40	15	2	162
S12 29 Mar’05	34	13	34	14	1	96
S13 6 Apr’05	51	13	26	6	1	97
S14 12 Apr’05	90	14	40	6	0	150
S15 29 Apr’05	85	17	46	8	2	158
S16 3 May’05	43	17	33	7	0	100
S17 17 May’05	60	19	18	12	1	110
S18 24 May’05	79	23	35	10	5	152
S19 31 May’05	83	28	35	5	1	152
S20 7 Jun’05	67	6	59	8	0	140
S21 16 Jun’05	10	3	7	0	1	21
S22 22 Jun’05	22	7	40	5	0	74
Total	1146	249	632	153	27	2207

APPENDIX H-6

Number of Definite and Indefinite Articles (ELİF)

Sample Recording date	#‘the’	#m’the’	#in ‘a’	#min ‘a’	#subst	Total
S1 9 Dec’05	2	0	0	5	0	7
S2 6 Jan’05	14	13	23	8	3	61
S3 26 Jan’05	21	9	6	4	0	40
S414 Feb’05	21	1	10	9	2	43
S5 8 Mar’05	14	9	14	2	0	39
S6 25 Feb’05	110	18	24	4	0	156
S715 Mar’05	114	22	17	6	3	162
S8 12 Apr’05	91	21	12	7	0	131
S9 29 Apr’05	92	23	26	4	0	145
S10 3 May’05	63	18	28	5	1	115
S11 10May’05	22	13	3	4	0	42
S12 17 May’05	40	16	17	16	1	90
S13 24 May’05	60	21	38	7	2	128
S14 1 Jun’05	103	27	34	8	3	175
S15 7 Jun’05	68	19	34	14	0	135
S16 14 May’05	32	12	22	14	0	80
S17 24 Jun’05	28	3	8	3	1	43
Total	895	245	316	120	16	1592

APPENDIX H-7

Percentage of Definite and Indefinite Articles (NİL)

Sample Recording date	‘the’%	m’the’%	in ‘a’%	min’a’	subst%
S1 6 jan’05	54.84	27.42	8.06	8.06	1.61
S2 14 Jan’05	42.86	10.71	17.86	28.57	0.0
S3 18 Jan’05	62.86	20.0	2.86	14.29	0.0
S414 Feb’05	38.10	28.57	28.57	4.76	0.0
S5 18 Feb’05	44.44	32.22	17.78	5.56	0.0
S6 25 Feb’05	51.25	20.0	22.50	6.25	0.0
S715 Mar’05	62.11	26.32	4.21	7.37	0.0
S8 29 Mar’05	45.97	20.16	22.58	11.29	0.0
S9 6 Apr’05	42.50	25.0	11.25	21.25	0.0
S10 12 Apr’05	45.71	30.0	14.29	8.57	1.43
S11 29 Apr’05	61.54	10.26	17.09	5.98	5.13
S12 3 May’05	56.10	24.39	10.98	7.32	1.22
S1310 May’05	38.97	17.65	23.53	18.38	1.47
S1420 May’05	39.06	18.75	21.09	18.75	2.34
S15 24 May’05	50.93	18.69	13.55	16.36	0.47
S16 31 May’05	60.20	16.33	15.82	6.63	1.02
S17 7 Jun’05	38.07	13. 07	23.30	22.16	3.41
S18 16 Jun’05	55.36	14.29	21.43	3.57	5.36
S19 22 Jun’05	32.73	23.64	32.73	7.27	3.64
Total	48.82	19.88	17.52	12.27	1.50

[8]

[8] the’: The number of the definite article ‘the’
’the’%: The percentage of the missing definite article ‘the’
in ‘a’%: The percentage of the indefinite article ‘a’
m in ‘a’%: The percentage of the missing indefinite article ‘a’
subs%: The percentage of the substitution errors

APPENDIX H-8

Percentage of Definite and Indefinite Articles (AYDA)

Sample Recording date	'the'%	m'the'%	in 'a'%	min 'a'%	subst%
S1 2 Dec'05	18.75	28.13	15.63	37.50	0.0
S2 9 Dec'05	50.0	16.67	16.67	16.67	0.0
S3 6 Jan'05	15.38	23.08	53.85	7.69	0.0
S4 26 Jan'05	62.50	4.17	33.33	0.0	0.0
S5 27 Jan'05	71.72	4.83	18.62	2.76	2.07
S6 14 Feb'05	66.04	7.55	20.75	5.66	0.0
S718 Feb'05	43.68	6.84	36.32	10.53	2.63
S8 25 Feb'05	51.85	4.63	37.04	6.48	0.0
S9 8 Mar'05	65.22	7.83	22.61	2.61	1.74
S10 15 Mar'05	59.22	9.71	23.30	4.85	2.91
S11 22 Mar'05	48.77	16.05	24.69	9.26	1.23
S12 29 Mar'05	35.42	15.54	35.42	14.58	1.04
S13 6 Apr'05	52.58	13.40	26.80	6.19	1.03
S14 12 Apr'05	60.0	9.33	26.67	4.0	0.0
S15 29 Apr'05	53.80	10.76	29.11	5.06	1.27
S16 3 May'05	43.0	17.0	33.0	7.0	0.0
S17 17 May'05	54.55	17.27	16.36	10.91	0.91
S18 24 May'05	51.97	15.13	23.03	6.58	3.29
S19 31 May'05	54.61	18.42	23.03	3.29	0.66
S20 7 Jun'05	47.86	4.29	42.14	5.71	0.0
S21 16 Jun'05	47.62	14.29	33.33	0.0	4.76
S22 22 Jun'05	29.73	9.46	54.05	6.76	0.0
Total	51.93	11.28	28.64	6.93	1.22

APPENDIX H-9

Percentage of Definite and Indefinite Articles (ELİF)

Sample Recording date	‘the’%	m’the’%	in ‘a’%	min’a’%	subst%
S1 9 Dec’05	28.57	0.0	0.0	71.43	0.0
S2 6 Jan’05	22.95	21.31	37.70	13.11	4.92
S3 26 Jan’05	52.52	22.50	15.00	10.00	0.0
S414 Feb’05	48.84	2.33	23.26	20.93	4.65
S5 8 Mar’05	35.90	23.08	35.90	5.13	0.0
S6 25 Feb’05	70.51	11.54	15.38	2.56	0.0
S715 Mar’05	70.37	13.58	10.49	3.70	1.85
S8 12 Apr’05	69.47	16.03	9.16	5.34	0.0
S9 29 Apr’05	63.45	5.86	17.93	2.76	0.0
S10 3 May’05	54.78	15.65	24.35	4.35	0.87
S11 10May’05	52.38	30.95	7.14	9.52	0.0
S12 17 May’05	44.44	17.78	18.89	17.78	1.11
S13 24 May’05	46.88	16.41	29.69	5.47	1.56
S14 1 Jun’05	58.86	15.43	19.43	4.57	1.71
S15 7 Jun’05	50.37	14.07	25.19	10.37	0.0
S16 14 May’05	40.00	15.00	27.50	17.50	0.0
S17 24 Jun’05	65.12	6.98	18.60	6.98	2.33
Total	56.22	15.39	19.85	7.54	1.01

APPENDIX I-1

Number of Possessive Pronouns (NİL)

Sample Recording date	my	your	his/her	its	our	their	Total
S1 6 jan'05	1	0	18	0	1	0	20
S2 14 Jan'05	1	17	4	0	0	0	22
S3 18 Jan'05	8	4	3	0	0	0	15
S414 Feb'05	1	0	9	0	0	1	11
S5 18 Feb'05	3	0	20	0	0	0	23
S6 25 Feb'05	4	7	3	0	0	0	14
S715 Mar'05	6	1	11	0	0	0	18
S8 29 Mar'05	24	3	1	0	0	0	28
S9 6 Apr'05	5	0	5	0	1	0	9
S10 12 Apr'05	4	1	3	0	0	0	8
S11 29 Apr'05	9	0	13	0	0	0	22
S12 3 May'05	18	1	1	0	0	0	20
S1310 May'05	23	2	2	0	0	2	28
S1420 May'05	33	3	5	0	0	1	41
S15 24 May'05	22	1	7	0	1	1	32
S16 31 May'05	30	5	1	0	0	4	40
S17 7 Jun'05	22	2	0	0	0	0	24
S18 16 Jun'05	21	2	1	0	2	2	28
S19 22 Jun'05	11	2	0	0	1	0	14
Total	246	49	109	0	6	11	421

APPENDIX I-2

Number of Possessive Pronouns (AYDA)

Sample Recording date	my	your	his/her	its	our	their	total
S1 2 Dec'05	7	0	4	0	0	0	11
S2 9 Dec'05	1	0	2	0	0	0	3
S3 6 Jan'05	2	0	0	0	0	0	2
S4 26 Jan'05	10	2	0	0	0	0	12
S5 27 Jan'05	13	3	13	1	0	0	30
S6 14 Feb'05	0	1	4	0	0	0	5
S718 Feb'05	22	1	18	0	0	1	42
S8 25 Feb'05	7	2	6	0	0	1	16
S9 8 Mar'05	10	2	11	1	0	0	24
S10 15 Mar'05	0	3	7	0	0	0	10
S11 22 Mar'05	10	2	20	0	0	0	32
S12 29 Mar'05	13	2	8	0	0	0	23
S13 6 Apr'05	12	0	7	0	0	0	19
S14 12 Apr'05	14	1	24	0	0	1	40
S15 29 Apr'05	26	6	29	1	1	0	63
S16 3 May'05	13	6	37	1	0	0	57
S17 17 May'05	10	2	13	0	0	0	25
S18 24 May'05	27	6	21	1	0	0	55
S19 31 May'05	7	1	10	0	0	0	18
S20 7 Jun'05	23	4	17	2	0	0	46
S21 16 Jun'05	3	1	0	0	0	0	4
S22 22 Jun'05	12	2	15	2	0	0	31
Total	242	47	267	9	1	3	569

APPENDIX I-3

Number of Possessive Pronouns (ELİF)

Sample Recording date	my	your	his/her	its	our	their	total
S1 9 Dec'05	1	0	0	0	0	0	1
S2 6 Jan'05	2	0	24	0	0	0	26
S3 26 Jan'05	5	1	2	0	0	0	8
S414 Feb'05	1	1	14	1	0	0	17
S5 8 Mar'05	1	3	8	0	0	2	14
S6 25 Feb'05	7	11	5	0	0	1	24
S715 Mar'05	1	0	2	0	0	1	4
S8 12 Apr'05	9	1	10	0	1	0	21
S9 29 Apr'05	9	0	4	0	0	2	15
S10 3 May'05	2	0	10	0	0	0	12
S11 10May'05	6	1	5	1	1	0	14
S12 17 May'05	19	5	8	0	0	1	33
S13 24 May'05	34	13	15	0	4	1	67
S14 1 Jun'05	33	4	8	0	2	2	49
S15 7 Jun'05	28	4	10	0	3	1	46
S16 14 May'05	20	0	3	1	2	1	27
S17 24 Jun'05	11	0	4	0	0	0	15
Total	189	44	132	3	13	12	393

APPENDIX J-1

Number and Percentage of Genitive Constructions (NİL)

Sample Recording date	#posspro	#poss's	#mposs's	Total	posspro%	poss's%	mposs'%
S1 6 jan'05	20	2	0	22	90.91	9.09	0.0
S2 14 Jan'05	22	7	0	29	75.86	24.14	0.0
S3 18 Jan'05	15	3	0	18	83.33	16.67	0.0
S414 Feb'05	11	2	0	13	84.62	15.38	0.0
S5 18 Feb'05	23	0	0	23	100.0	0.0	0.0
S6 25 Feb'05	14	2	0	16	87.50	12.50	0.0
S715 Mar'05	18	0	0	18	100.0	0.0	0.0
S8 29 Mar'05	28	3	0	31	90.32	9.68	0.0
S9 6 Apr'05	11	3	0	14	78.57	21.43	0.0
S10 12 Apr'05	8	1	0	9	88.89	11.11	0.0
S11 29 Apr'05	22	3	1	26	84.62	11.54	3.85
S12 3 May'05	20	1	0	21	95.24	4.76	0.0
S1310 May'05	29	0	0	29	100.0	0.0	0.0
S1420 May'05	42	7	0	49	85.71	14.29	0.0
S15 24 May'05	32	2	0	34	94.12	5.88	0.0
S16 31 May'05	40	6	0	46	86.96	13.04	0.0
S17 7 Jun'05	24	3	0	27	88.89	11.11	0.0
S18 16 Jun'05	28	4	0	32	87.50	12.50	0.0
S19 22 Jun'05	14	2	0	16	87.50	12.50	0.0
Total	421	51	1	473	89.01	10.78	0.21

9

[9] # and % posspro: The number and percentage of the possessive pronouns
and % poss's: The number and percentage of the possessive's constructions
and % mposs's: The number and the percentage of the missing possessive's constructions

APPENDIX J-2

Number and Percentage of Genitive Constructions (AYDA)

Sample	#posspro	#poss's	#mposs's	Total	posspro %	poss's%	mposs's%
Recording date							
S1 2 Dec'05	11	1	0	12	91.67	8.33	0.0
S2 9 Dec'05	3	0	0	3	100.0	0.0	0.0
S3 6 Jan'05	2	0	0	2	100.0	0.0	0.0
S4 26 Jan'05	12	0	0	12	100.0	0.0	0.0
S5 27 Jan'05	30	2	0	32	93.75	6.25	0.0
S6 14 Feb'05	5	0	0	5	100.0	0.0	0.0
S718 Feb'05	42	0	1	43	97.67	0	2.33
S8 25 Feb'05	17	0	0	17	100.0	0.0	0.0
S9 8 Mar'05	24	4	0	28	85.71	14.29	0.0
S10 15 Mar'05	10	1	0	11	90.91	9.09	0.0
S11 22 Mar'05	32	2	1	35	91.43	5.71	2.86
S12 29 Mar'05	23	1	0	24	95.83	4.17	0.0
S13 6 Apr'05	19	3	1	23	82.61	13.04	4.35
S14 12 Apr'05	40	2	0	42	95.24	4.76	0.0
S15 29 Apr'05	63	4	0	67	94.03	5.97	0.0
S16 3 May'05	57	1	1	59	96.61	1.69	1.69
S17 17 May'05	25	0	0	25	100.0	0.0	0.0
S18 24 May'05	55	2	0	57	96.49	3.51	0.0
S19 31 May'05	18	3	0	21	85.71	14.29	0.0
S20 7 Jun'05	46	1	0	47	97.87	2.13	0.0
S21 16 Jun'05	4	0	0	4	100.0	0.0	0.0
S22 22 Jun'05	31	0	0	31	100.0	0.0	0.0
Total	569	27	4	600	94.83	4.50	0.67

APPENDIX J-3

Number and Percentage of Genitive Constructions (ELİF)

Sample Recording date	#posspro	#poss's	#mposs's	Total	posspro%	poss's%	mposs's%
S1 9 Dec’05	1	0	0	1	100.0	0.0	0.0
S2 6 Jan’05	26	1	0	27	96.30	3.70	0.0
S3 26 Jan’05	8	0	1	9	88.89	0.0	11.11
S414 Feb’05	17	0	0	17	100.0	0.0	0.0
S5 8 Mar’05	14	0	0	14	100.0	0.0	0.0
S6 25 Feb’05	24	6	0	30	80.0	20.0	0.0
S715 Mar’05	4	3	0	7	57.14	42.86	0.0
S8 12 Apr’05	21	0	0	21	100.0	0.0	0.0
S9 29 Apr’05	15	2	1	18	83.33	11.11	5.56
S10 3 May’05	12	3	1	16	75.0	18.75	6.25
S11 10May’05	14	3	10	17	82.35	17.65	0.0
S12 17 May’05	33	0	0	33	100.0	0.0	0.0
S13 24 May’05	67	2	0	69	97.10	2.90	0.0
S14 1 Jun’05	49	0	0	49	100.0	0.0	0.0
S15 7 Jun’05	46	3	2	49	93.88	6.12	0.0
S16 14 May’05	27	1	2	30	90.0	3.33	6.67
S17 24 Jun’05	15	1	0	16	93.75	6.25	0
Total	393	25	5	423	92.91	5.91	1.18

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