Bilingual acquisition of English and Turkish languages: A case study of a Turkish infant

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Abstract

This is a longitudinal and naturalistic study of the bilingual acquisition of English and Turkish languages simultaneously by a 28-month old Turkish infant. The emphasis is on empirical findings collected from a two-year period of observations beginning from the subject’s birth and lasting until his 28-month old linguistic status. The study is based on careful distributional analyses of the performed data and the findings contrasted and compared as per two languages. The results revealed that two languages are acquired as a single linguistic system at least until the age of 28 month-old, perhaps due to the fact that syntactical operations have not started yet. In addition, the findings prove that the extent to which acquisitional differences between the two languages which bilinguals receive depends on factors such as variation in the amount of input and the quality rather than the quantity of time spent with the exemplar. The data obtained in this longitudinal observational study are expected to contribute not only to the bilingual and multilingual linguistic studies but first language acquisition studies as well in that the study is important in terms of its scope.

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Keywords: bilingual; acquisition; English; Turkish; case study.

1. Introduction

Bilingualism is commonly defined as the use of two languages by an individual (ASHA, 2004). Bilingual Acquisition, on the other hand, refers to the language acquisition process involving two mother languages. Studies on bilingualism, or multilingualism, are generally carried out as individual or social bilingualism. Therefore, in order not to cause confusion, initially, it is necessary to make a distinction between societal and individual bilingualism. “A multilingual person can be called if on the basis of the knowledge of his/her mother tongue he/she has restricted knowledge in at least two further languages, either in the same or in different discourse areas” (Wilton, 2009, p.50). As a social phenomenon, as suggested by Wilton (2009), it may be misleading to regard multilingualism as a group all of whose individual members are multilingual. Instead, it is suggested to regard it as a certain society within which several languages are present within a certain society. Accordingly, a bilingual society can be described as a social group composed of bilingual individuals or several

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monolingual groups with different languages, whereas a bilingual person can be described as an individual either with two first languages, or with a first and a second language (Wilton, 2009).

When L1 and L2 are exposed simultaneously, we may talk about simultaneous learning of two first languages. However, in order to dissipate the ambiguity and illustrate the difference between first, second and foreign languages more efficiently, we need to describe these concepts with new representations as to their way of acquisition at least for this particular study. Accordingly, by a first language (L1), we only mean “native or mother tongue(s) acquired unconsciously”. By a second language (L2), we mean “a language(s) acquired unconsciously in a non-native environment following the first language(s)”. And by a third language (L3), we mean “a foreign language(s) learned consciously and purposively through formal education or cognitive ways. This term generally refers to the learning of a second, third or fourth foreign language (= L3) in a natural context” (Hufeisen and Jessner, 2009). A foreign language, on the other hand, differs from the others in terms of acquisition processes. Whereas “the natural acquisition of several languages from birth is usually the result of the environment of an individual”, “the formal learning of a foreign language is largely a conscious and purposive process” (Bertrand and Christ, 1990, p.208). From these descriptions, it is understood that each category of languages is acquired or learned in different ways. That is, languages spoken by a multilingual individual are not classified as L1, L2, L3, L4, ..., Ln but as L1, L2, and L3 as to their quality of acquisition. As to the quantity of languages acquired or learned, on the other hand, each qualitative category may also contain multiple languages, which may be represented for multiple L1s as L11, L12, L13, L1n etc. In case of multiple L2s, the representation will be something like L21, L22, L23, L2n etc. As for multiple L3s, the quantitative representation of multiple successive languages learned may be illustrated as L31, L32, L33, L3n etc.

In this particular study, one of the research interests which we sought is to determine whether either language system lag behind or overwhelm the other during Turkish-English bilingual acquisition process of an infant growing up in a bilingual family or environment. More specifically, we want to observe whether there is difference between acquisition levels between the languages in bilinguals, and if so, what the reasons may result from. In acquiring two languages from birth, De Houwer (2005) states that “a situation referred to as bilingual acquisition, children undergo a double acquisition process in which two morphosyntactic systems are acquired as fundamentally independent closed systems known as “Separate Development Hypothesis (SDH)” (p.1). Accordingly, in children who are exposed two languages from birth, these languages develop as two distinct grammatical systems (ignoring phonology or lexicon) (De Houwer, 2005, p.1). “Research in the 1970s”, in contrast, “suggested the Single-System Hypothesis”, holding the opinion that bilingual children systematically apply the same syntactic rules to both languages” (Kroll and De Groot, 2009, p.20). In order to be a party in this debate, it is crucial to explain how children manage to “differentiate” between their first languages (see, e.g., Arnberg & Arnberg, 1992). However, ignoring which hypothesis is true for bilinguals, it should be noted that children experiencing bilingual acquisition have had less exposure to either language than children experiencing monolingual acquisition, focusing only one linguistic system (see also Paradis, Nicoladis and Crago, 2007). Therefore, it is not unusual to predict that bilingual children lag behind monolinguals in achieving acquisition milestones due to the less frequent input to which they are exposed (Tomasello, 2004). Accordingly, the distribution and the frequency of the input are key mechanisms outlining the language acquisition process (Tomasello, 2003). Nevertheless, “in general bilingual children’s language-specific development within one language differs little from that of monolingual acquisition, except of course that bilingual children do it for two languages at a time” (Kroll and De Groot, 2009, p.20). Similar to the comparisons and discussions cited above on the case of bilinguals and monolinguals, in this particular study, we focus on the comparisons and discussions on the acquisitional differences between the two languages of a bilingual
infant. To find answers for the questions in that context, such as whether hearing two languages from birth leads to language delay will be our indirect eventual goals at which we seek to target. Instead, in this study, one of the research interests which we sought is to determine whether either language system lag behind or overwhelm the other during Turkish-English bilingual acquisition process of an infant growing up in a bilingual family or environment. More specifically, one of the aims of the study is to observe whether there is difference between acquisition levels between the languages in bilinguals, and if so, what the reasons may result from.

1.1. Literature review

Over the last two or three decades, there has been a great interest among linguists reporting on the language development of infants experiencing more than one language acquisition from a very early age or the birth. Before that time, however, empirical studies on young bilingual infants were few, the first of which dates back to 1913 (Kroll and De Groot, 2009). Hulk and Müller (2000) sought to test whether bilingual children separate their grammars from very early stages during bilingual first language acquisition process. The main focus of the paper is on the acquisition of syntax. Comparing the development of the two phenomena in a bilingual Dutch–French and a German–Italian child to the development in monolingual children, it was found out that the hypothesis that cross-linguistic influence is due to language internal factors, but not to the language external factors such as language dominance. Furthermore, De Houwer (2005) reviews the longitudinal studies on morphosyntactic development among bilingual infants published in the last 15 years and arrived at a conclusion that no child produced the sort of language repertoire that would be predicted to develop in bilingual children in line with a transfer theory. In another research carried out by Paradis, Nicoladis and Crago (2007), it was concluded that the bilingual-monolingual differences depends on the variation in the amount of input between the two languages bilinguals receive. Furthermore, among the studies on bilingualism, Wilton (2009) gave us opinion on how bilingualism has been tackled so far, by particularly making the difference between a multilingual society and a multilingual person, suggesting that a bilingual society can be described as a social group composed of bilingual individuals or several monolingual groups with different languages, whereas a bilingual person can be described as an individual either with two first languages, or with a first and a second language (Wilton, 2009).

1.2. Research questions

In this particular study, the research interests which we sought are to determine (i) whether either language system lags behind or overwhelm the other during Turkish-English bilingual acquisition process of an infant growing up in a bilingual family or environment, or to observe whether there is difference between acquisition levels between the languages in bilinguals; to determine (ii) the distribution of the categories of the words acquired in both languages. In addition, (iii) the distribution of modal expressions in both languages is also one of the interesting points into which we look in this study since it is assumed that “a normal child acquires competence not only grammatical but also communicative as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner” (Hymes, 1972, p. 277). Next, (iv) the distribution of morphological units in both languages will be sought in order to compare grammatical developments in both languages. In this study, it is also questioned (v) whether the subject of the study distinguishes or chooses between the two language systems in different contexts (i.e. Separate Development Hypothesis or Single-System Hypothesis). Although this hypothesis was originally put forward for the children who start learning a second language after they’ve been basically monolingual typically and doesn’t make any claims about lexicon, our claims will be based on the lexical data collected from early period (0-28 months) bilingual acquisition.
2. Method

2.1. Participants

This paper summarizes some of the major data gathered in a longitudinal, naturalistic study of a Turkish infant experiencing bilingual acquisition of Turkish and English. Ertuğrul Dolunay, the subject of this study, is a 28 month-old infant. He is Turkish. He was born in Van in 2015. He has two elder brothers; one is a 19 year-old university student, and the other is a 12 year-old secondary school student. They are beginner level English speakers who are formally taught at school. His mother Nurgül is a housewife and a false beginner of English. His father who is the researcher of this study, is a linguist who is an advanced speaker of English. All the family members are native Turkish speakers. English was particularly driven by the dad whereas Turkish was driven by the Mum and the brothers. The mum switches between TR and ENG as much as she knows their English counterparts. None of the the subject’s peers or other relatives with whom he interacts can speak English. He usually watches Turkish cartoons or advertisements on TV, but he sometimes watches English cartoon videos on mobile phones.

2.2. Data Collection Procedures

In this study, the linguistic competence of a 28-month-year old Turkish infant was observed over a period of 28 months starting from his birth until the age of 28-month old. The languages exposed simultaneously were English and Turkish. English was particularly driven by the dad whereas Turkish was driven by the Mum, the brothers and other family members or neighbors. Due to the occupational reasons, the father could usually meet and communicate with the subject in the mornings and evenings. During summer seasons, he generally took the subject out and playing outdoor and communicating with him in English. During home hours, he also gets in touch with him through games and joint works. The mum switches between TR and ENG as much as she knows their English counterparts. The vocabulary, syntax, language use and grammar acquisition process were observed and recorded. We recorded all the linguistic developments such as vocabulary or grammar use in both languages which we witnessed during our observations.

2.3. Data Analysis

What we essentially do in this study is to gather everything in the child’s speech that is in any way relevant to the construction of interest. Distributional analysis was simply the method of induction and way of analyzing the data collected in this research since it is a widely resorted technique for studies which include differentiating grammatical categories as also suggested by Frawley (2003). Total words were grouped semantically into three main categories titled as the category of words, mood and grammar. Categories of words were divided into nouns, verbs, adjectives, adverbs and adpositions, while the words grouped under the mood, or use of language, were divided into anger, request, politeness and willingness/unwillingness. In addition, the words grouped semantically under the title Grammar were divided into tense, syntax and pronouns. The data collected into categories were then categorized chronologically in terms as to their developmental stages: 0-6, 6-12, 12-18, 18-24, and 24-28 months and were illustrated in tables. All the analyzed data from two languages were initially compared and contrasted in terms of acquisition levels. Finally, the findings were discussed in terms of language acquisition and bilingualism in a broader sense. In a narrower sense, the data were used to evaluate vocabulary and grammar acquisition as well as Separate Development or Single Acquisition Hypothesis.
The emphasis is based on careful distributional analyses performed on the data, rather than on any particular theoretical orientation.

3. Results and Discussion

The findings were organized in terms of the five research questions of the beginning of the study.

3.1. The Distribution of the Categories of Words in Turkish (TR) and English (ENG)

During our observations for 28 months, total 172 words, 37 of which are TR and 135 of which are ENG, were recorded. It should be noted that these were the numbers of words ‘used’. Among these words, 101 nouns, 24 of which are TR and 77 of which are ENG, were recorded. The other categories are; 19 adjectives (3 TR, 16 ENG), 31 verbs (12 TR, 19 ENG), 2 adverbs, both of which are ENG, and 4 adpositions, all of which are ENG prepositions. According to the developmental stages of the acquisition process, no meaningful findings were found during 0-6 months but crying and laughing. Between 6-12 months, we observed first words; there were only 3 TR words, 4 babbling words and strings of sounds. During 12-18 months, we recorded 2 TR and 9 ENG, totally 11 words, as well as babbling words. Between 18-24 months, we recorded 4 TR and 15 ENG, totally 19 additional words. For the developmental period, that is, during 24-28 months, we recorded the highest numbers; 28 TR and 111 ENG, totally 139 new additional words only particular to this stage. Among total 172 TR/ENG words, we identified only 8 TR words without their English counterparts (e.g. aba, siki, abi, dede, ayran, mama, bu, mo (macun), but 106 ENG words without their TR counterparts. The results are illustrated in Table 1 below:

Table 1. Distribution of the lexicon

<table>
<thead>
<tr>
<th>Lexicon</th>
<th>Months</th>
<th>Nouns</th>
<th>Adjectives</th>
<th>Verbs</th>
<th>Adverbs</th>
<th>Adpositions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-6</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
</tr>
<tr>
<td></td>
<td>6-12</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
</tr>
<tr>
<td></td>
<td>12-18</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
</tr>
<tr>
<td></td>
<td>18-24</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
</tr>
<tr>
<td></td>
<td>24-28</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
<td>ENG</td>
<td>TR</td>
</tr>
</tbody>
</table>

The emphasis is based on careful distributional analyses performed on the data, rather than on any particular theoretical orientation.
3.2. The Acquisition of Modal Expressions

The observation of modal structures shows us that not only grammar but also the use of language, e.g. knowing what to talk about with whom, in what manner, when and where, as suggested by Communicative Competence theory by Hymes (1972). The expressions related to willingness or unwillingness started in very early stages (i.e. 6-12 months), whereas the other modal expressions (e.g. politeness, anger, and slang) started relatively later (i.e. 24-28 months). The situationl language was uttered at the right time and at the right place. Thanking for the goodness and swearing during anger were true linguistic reactions. For example, the slang language (e.g. essek/tanti-donkey, seet-shit) was especially produced during quarrelling with the elder brother from whom he probably acquired. In short, the subject infant was “able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others” (Hymes, 1972, p.277). The results are illustrated in Table 2 below:

<table>
<thead>
<tr>
<th>Period (Months)</th>
<th>Politeness</th>
<th>Anger</th>
<th>Request</th>
<th>Willingness/Unwillingness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6</td>
<td>TR</td>
<td>TR</td>
<td>TR</td>
<td>TR</td>
</tr>
<tr>
<td>6-12</td>
<td>TR</td>
<td>TR</td>
<td>TR</td>
<td>TR</td>
</tr>
<tr>
<td>12-18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>yok (no)</td>
</tr>
<tr>
<td>18-24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>oke (okay), Yeah (yes)</td>
</tr>
<tr>
<td>24-28</td>
<td>tentu (thank you)</td>
<td>essek (eşek-donkey), tanti (donkey),</td>
<td>pi (please)</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

3.3. The Acquisition of Morphological Units in both languages

The phrasal words were uttered as a single word, which means that syntactical grammar had not started yet. The past and past participle verb forms as well as genitive form of the pronouns were used correctly. For example, the subject of the study could use the imperative go and the participle form gone in the right context. The results are illustrated in Table 3 below:

<table>
<thead>
<tr>
<th>Period (Months)</th>
<th>Tense</th>
<th>Syntax (Phrasal Structures)</th>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6</td>
<td>TR</td>
<td>TR</td>
<td>Menim (benim, mine)</td>
</tr>
<tr>
<td>6-12</td>
<td>TR</td>
<td>TR</td>
<td>bu (this)</td>
</tr>
<tr>
<td>12-18</td>
<td>-</td>
<td>maon (my phone), hugga (hug me)</td>
<td>&quot; maze (mess) &quot;</td>
</tr>
<tr>
<td>18-24</td>
<td>go/gone</td>
<td>&quot;</td>
<td>me, mine</td>
</tr>
<tr>
<td>24-28</td>
<td>git (go)/ditti (gitti-gone), döktü (spoilt-1Per,Sing.)</td>
<td>&quot; tentu (thank you), dim (give me)</td>
<td>&quot; me, mine &quot;</td>
</tr>
</tbody>
</table>
3.4. The difference between acquisition levels for Turkish and English and Levels

The frequency of the ENG words, or the acquisition of English, outweighs the frequency of TR words, which means Turkish lagged behind English during bilingual acquisition process observed in this study. This result may be related to (i) the quality of time rather than the quantity of time having been spent with the parents or other family members and (ii) what we called parents’ effect which encourages Ertuğrul, the subject of the study, to maintain communication in English and meet naturally in other Turkish dominant environment without resulting in any frustration. Therefore, this research reveals that the extent to which acquisitional differences between the two languages bilinguals receive depends on factors such as variation in the amount of input and the quality rather than the quantity of time spent with the exemplar.

3.5. Separate Development Hypothesis or Single-System Hypothesis?

Although this hypothesis was originally put forward for the children who start learning a second language after they've been basically monolingual typically and doesn't make any claims about lexicon, our claims will be based on the lexical data collected from early period (0-28 months) bilingual acquisition. When forced to use a word among bilingually synonymous TR-ENG words (e.g. bak or look), Ertuğrul, the subject of the study, usually substitutes one instead of the other in the same context, usually giving priority to the initially acquired. This case bears resemblance to a monolingual’s knowing synonymous words referring to the same signified. Therefore, it may be suggested that two languages are acquired as a single system at least until the age of 28 month-old, perhaps due to the fact that syntactical operations have not started yet.

4. Conclusions

At the beginning of this study, we aimed to find out (i) whether either language system lags behind or overwhelm the other during Turkish-English bilingual acquisition process of an infant growing up in a bilingual family or environment, or to observe whether there is difference between acquisition levels between the languages in bilinguals; to determine (ii) the distribution of the categories of the words acquired in both languages; (iii) the distribution of modal expressions in both languages; and (iv) the distribution of morphological units in both languages. In this study, it is also questioned (v) whether the subject of the study distinguishes or chooses between the two language systems in different contexts (i.e. Separate Development Hypothesis or Single-System Hypothesis). The results of our analyses revealed that (1) the frequency of the ENG words, or the acquisition of English, outweighed the frequency of TR words, which means Turkish lagged behind English during bilingual acquisition process observed in this study. This result was partly related to (i) the quality of time rather than the quantity of time having been spent with the parents or other family members and (ii) the parents’ effect. The study, therefore, also revealed that the extent to which acquisitional differences between the two languages bilinguals receive depends on factors such as variation in the amount of input and the quality rather than the quantity of time spent with the exemplar. In addition, during our observations for 28 months, (2) total 172 words, 37 of which are TR and 135 of which are ENG, were recorded. For the developmental period, that is, during 24-28 months, we recorded the highest numbers; 28 TR and 111 ENG, totally 139 new additional words only particular to this stage. Furthermore, in terms of the distribution of the categories of words in the lexicon, acquisition of nouns ranked the highest among the other categories, while adpositions ranked the lowest (only 4 ENG prepositions). Another conclusion was established on the observation of properly used modal structures, showing us (3) that not only grammar but also the use of language, e.g. knowing how to speak where and when, is acquired, as suggested by Communicative Competence Theory by Hymes.
(1972). It was also found (4) that although the phrasal words were uttered as a single word, which means that syntactical grammar had not started yet, some morphological utterances such as the past and past participle verb forms as well as genitive form of the pronouns were used correctly. And finally, (5) we concluded from the choices of the bilingual subject substituting bilingually synonymous words one instead of the other in the same context that two languages are acquired as a single system rather than a separate development at least until the age of 28 month-old, perhaps due to the fact that syntactical operations have not started yet.

References


İngilizce ve Türkçe dillerinin iki dilli bir şekilde edinimi: Ertuğrul Dolunay adlı bir Türk çocuğun vaka incelemesi

Öz
Doğal uzun süreli bir gözleme dayanan bu çalışmada Ertuğrul Dolunay adlı iki yaşındaki bir Türk çocuğun eş zamanlı olarak İngilizce ve Türkçe dillerinin iki dilli olarak edinimine ilişkin önemli bulgular bildirilmektedir. Çalışmanın odağını, deneğin doğumundan 26 aylık oluşuna kadar geçen iki yıllık gözlem süresinde ulaştığı dilsel durumdan toplanan gözlemel-deneysel bulgular oluşturur. Çalışma, elde edilen verilerin dağılımlarının dikkatli bir şekilde çözümlenmesine ve iki dille göre karşılanan ve karşılaştırılan bulgulara dayanmaktadır. Sonuçlar, sözdizimsel işlemlerin henüz başlamamış olmasından dolayı iki dili edinimin en azından 28 aylık olana kadar muhtemelen tek bir dilsel sistem olarak edinildiğini ortaya koydu. Ayrıca, elde edilen bulgular çalışmanın örneklemi olan iki arasındaki edinimsel farklılıkların öne çıkan ve harcanan zamanın miktarından ziyade girdiği miktarın farklılık ve kalite gibi faktörlere bağlı olduğunu ortaya koymuştur. Uzun süreli bir gözleme dayanan bu çalışmada elde edilen veriler araştırma kapsamı bakımından bir ilk örnek teşkil ettiği sadece iki dililik veya çok dililik alanındaki dilbilimsel çalışmalarına değil ayrıca anadil edinimi çalışmalarına da katkı sağlaması beklenmektedir.

Anahtar sözcükler: iki dililik; dil edinimi, Türkçe; İngilizce; vaka incelemesi
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