

Comparison of Metalinguistic Development in Sequential Bilinguals and Monolinguals

(Ardışık İki Dilli Çocuklar ile Tek Dilli Çocuklarda Üstdilbilimsel Gelişimin Karşılaştırılması)

Sedat BECEREN

Çanakkale Onsekiz Mart University, Turkey
sbeceren@yahoo.com

Abstract: The purpose of this study was to compare metalinguistic skills (word awareness and phonological awareness) of a Turkish English sequential bilingual child and a monolingual Turkish child. The participants were two 8-year-old second grade students. Performances of the two participants compared on a set of three tasks related with word awareness and three tasks related with phonological awareness. The results for the word awareness tasks concluded that Turkish English bilingual child outperformed the Turkish monolingual child in the word segmentation task and the symbol substitution task but they both performed equally well in the word definition task. The results for the phonological tasks including the rhyming task, the final phoneme deletion task and phoneme blending tasks revealed no bilingual advantage. The results were discussed in terms of a limit on the effect that bilingualism exerts on metalinguistic development.

Keywords: metalinguistic development, phonological awareness, word awareness, sequential bilingual, monolingual

Öz: Bu çalışmanın amacı Türkçe-İngilizce ardışık iki dilli bir çocuk ile Türkçe tek dilli diğer bir çocuğun üstdilbilimsel gelişiminin (kelime farkındalık ve fonolojik farkındalık açısından) karşılaştırılmasıdır. Çalışmaya 8 yaşında iki ilkokul ikinci sınıf öğrencisi katılmıştır. Her iki çocuğun üstdilbilimsel gelişim performansları kelime farkındalık ve fonolojik farkındalık ile ilgili üçer görev uygulanarak karşılaştırılmıştır. Kelime farkındalık ile ilgili görevlerin sonuçlarına göre Türkçe-İngilizce ardışık iki dilli çocuk kelime ayırma görevinde ve kelime yer değiştirme görevinde Türkçe tek dilli çocuktan daha başarılıdır. Kafiye tanıma, Son fonem düşürme ve fonem harmanlama görevlerini içeren Fonolojik farkındalık ölçümlerinin sonuçlarına göre iki dillilik bir fark yaratmamıştır. Sonuçlar iki dilliliğin üstdilbilimsel gelişime etkisi açısından incelenmiş ve tartışılmıştır.

Anahtar Kelimeler: üstdilbilimsel farkındalık, fonolojik farkındalık, kelime farkındalık, ardışık iki dillilik, tek dillilik

Introduction

The effects of bilingualism on cognitive and linguistic abilities have been a research focus among the field of bilingualism. The questions initially have focused on mental organization of the two languages in a child's brain, and the consequences of bilingualism on cognitive and linguistic development. Researchers considering these questions have assumed that the child has a delicate cognitive system and it can handle only one language. This assumption might lead to a misconception of bilingualism and bilingualism has been accused of damaging child's cognitive, social, and emotional development (Hakuta, 1986). Therefore, simultaneous acquisition of two languages was believed to cause a delay or impairment in language learning process and it was even judged as a distracter-decreasing child's performance in language learning.

Since 1960, the pioneering studies such as Peal and Lambert (1962 cited in Bialystok, 2001) Ianco-Worrall (1972), Ben-Zeev (1977), and Cummins (1978) have changed this tendency towards the positive advantages of bilingualism. They were the pioneer researchers investigating how bilingualism influences children's developing conceptions of language. The results of these studies inclined researchers to reconsider the role that bilingualism plays in the cognitive life of young children.

Vygotsky (1962) was the first researcher propounding that bilingualism might have facilitating effects on children's metalinguistic development. Following researchers have investigated Vygotsky's claim usually by assessing children's word awareness and syntactic awareness. Although the results of the succeeding studies have been anomalous, the majority of published studies have reported an advantage for bilingual children (Ben-Zeev, 1977; Bialystok, 1986, 1988; Bowey, 1988; Cummins, 1978; Edwards & Christophersen, 1988; Galambos & Goldin-Meadow, 1990; Smith & Tager-Flusberg, 1982; Yelland et al., 1993).

One of the early research areas was the domain of metalinguistic awareness in which consistent advantages for bilingual children over their monolingual peers was observed (Bialystok, 2001). It is reasonable that having two different language systems for examination may make structural patterns more noticeable and accelerate the child's attention to the systematic features of language. In an early study assessing the role of metalinguistic concepts in children's language acquisition, Clark (1978, p. 36) hypothesized that "Learning two languages at once, for instance, might enhance one's awareness of specific linguistic devices in both".

Even though it has been reported in some studies that the development of metalinguistic awareness in bilinguals can be occurred in a different manner or at a different rate from monolingual children, it is still difficult to clarify this claim due to ambiguity of what metalinguistic awareness is or why its development is important (Bialystok, 2001). Therefore, we begin with an attempt to clarify the construct and its role in children's development.

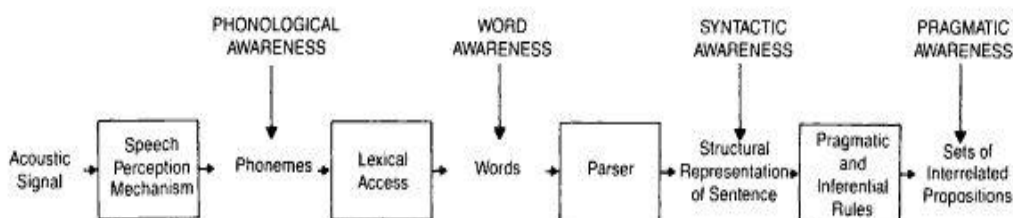
Metalinguistic Awareness

Metalinguistic awareness is defined as "the ability to objectify language and dissect it as an arbitrary linguistic code independent of meaning" (Roth, Speece, Cooper, & de la Paz, 1996, p. 258). It is the ability to analyze language, particularly language forms, to understand how they work and how they are integrated into the wider language system. It is the knowledge about language and sub parts of it.

Besides, Tunmer et al. (1988) defines the term as the ability that enables one to reflect on and manipulate the structural features of spoken language. Normal language operations involve automatic processing, however; metalinguistic operations require control processing. While speaking, one does not normally consider phonemes and words individually or the grouping relationship of words, if he/she does not consciously think about them. Therefore, metalinguistic awareness requires analysis of knowledge and control of cognitive processing.

Tunmer et al. (1988 p.136) classifies metalinguistic awareness into four broad categories: Phonological, word, syntactic and pragmatic awareness. The following figure illustrates the relationship between normal language processing and metalinguistic operations.

Figure 1
Types of metalinguistic ability classified according to products of sentence comprehension processing mechanisms



In the present study, the focus is given to word awareness and phonological awareness. Therefore, these two terms are scrutinized in the following lines.

Word Awareness

One of the components of metalinguistic ability that present study investigates is word awareness that requires conscious knowledge of the word as a linguistic unit. It can be considered as the capability to understand the words, to identify words in a written or spoken text, and to distinguish them from other linguistic units. Bialystok (2001) states that children should have two different awareness style to comprehend the symbolic function of words. The first one is the awareness of the segmentational process. Other one is the awareness of arbitrary relationship between words and their designated meanings.

The segmentational ability that is part of word awareness can be used to test word awareness by asking children to segment a given sentence into parts. A series of sentences written without interword spacing (such as <icecreamisthemostpopulardessertinsummer>); can be given to children to segment by drawing a line between words (Miller et. al, 2000 cited in Bassetti, 2005). Bialystok (1986) conducted a research study with bilingual French-English children and compared their performance with English and French monolinguals on tasks of sentence segmentation. Both groups performed well when the sentences were given in their normal form and scrambled form. Nevertheless, children struggled to segment the sentences when they were presented as intact form. This task was required children's ability to enumerate the units in the sentence. The results propounded that there was a significant bilingual advantage in both of the forms. In addition, Miller et al. (2000 cited in Bassetti, 2005) asserted that the children's word awareness enhanced via schooling and their recognition of words gradually increased when they started to learn reading.

Another activity employed in testing the word awareness is the word definition tasks. It can be also affected by schooling. Children's ability to give formal definitions can be improved through exposure to teachers' talk about words (Watson & Olson, 1987). Researchers explored the children's' definitions of words in terms of their formality and informality. A formal definition requires the correct use of linguistic structure and conceptual meaning in defining a word. It would contain a superordinate category that provides to differentiate person, place, or thing from others of its kind (e.g., "A knife is a tool for cutting food). In contrast, an informal definition would refer to the amount of information the speaker gives about a word, regardless of the structure with which this information is presented (e.g., "A knife is sharp, and it is used to cut meat and vegetables". This ability is directly

related with literacy achievement and the language of the instruction at school. The research conducted by Snow (1990); Snow et al. (1991) revealed that the ability to give formal definitions is the result of instruction language regardless of the first language or home language. For the informal definition, the ability is directly related with the word knowledge.

The awareness of referential arbitrariness is another factor indicating word awareness. Been-Zeev (1977 cited in Bialystok et al. 2003) employed a symbol substitution task in which she provided a context of competition between the usual and unusual semantic reference function. This task was designed to assess the children's level of awareness of referential arbitrariness. The results of this task concluded that bilingual children were better in making substitutions than monolinguals. It was easier for them to ignore the meaning and deal with the formal instructions for some reason. What this task points out is that monolingual children are more committed to the familiar meanings of words than are their bilingual peers. On the contrary, bilingual children are more enthusiastic to accept that the meaning of a word is more convention than necessity, more agreement than truth.

Research on word awareness suggests that bilingual children have better understanding of words and there is a bilingual advantage in terms of word awareness. For example when children are asked to substitute the words in a given sentence such as Piaget's famous sun-moon problem, bilingual children are better than monolinguals in understanding that changing the names for the sun and moon do not change the condition of the sky during the day or at night (Bialystok, 1988; Cummins, 1978; Ricciardelli, 1992).

Cummins (1978) conducted a study including four metalinguistic tasks of word awareness to bilinguals and monolinguals. Performance differences between the groups were identified on only some of the tasks, or on some parts of the tasks. The study revealed that bilinguals had a greater linguistic flexibility.

In a study consisting of five metalinguistic tasks— three word awareness, one syntactic awareness, and one a concept of print task, Ricciardelli (1992) compared the performance of first-grade English monolinguals and Italian-English bilingual children regarding cognitive and metalinguistic tasks. The results showed a significant bilingual advantage on the syntactic awareness task and one of the word awareness tasks. Although the bilinguals performed better in the other word awareness tasks, a statistically significant result was not found.

There were also some researches resulted in controversy. In a research carried out by Rosenblum and Pinker (1983 cited in Bialystok, 2001), the task requiring bilingual and monolingual children to substitute a nonsense word for an actual word revealed no difference between the groups. However, both parties had different explanations why they could not substitute the words. Monolinguals proposed that the name of an object could be changed to another one by keeping the attributes of the object. On the other hand, bilinguals did not focus on the attributes of the object and they explained that the name of an object was arbitrary and could be changed under certain conditions.

Although the studies have introduced mixed results, a majority of the published research indicates a bilingual superiority in tasks that are generally addressed to concepts of word (Bialystok, 1986, 1988; Edwards & Christophersen, 1988; Yelland, Pollard, & Mercuri, 1993). In fact, bilingual superiority has not been discovered in all tasks related with word awareness. It is normally limited to certain tasks, and sometimes to certain parts of some tasks.

Phonological Awareness

Phonological awareness is the conscious sensitivity to the sound structure of language (Lane, Pullen, Eisele, & Jordan, 2002). It is the ability to distinguish units of speech auditory, for example, identifying the syllables of a word and individual phonemes of a syllable. This ability is crucial for spelling and reading fluency and it is a significant and reliable predictor of later reading ability. Therefore, it has been the focus of much research regarding reading.

Some studies have stated that phonological awareness develops in a different way in bilinguals but these studies do not indicate concrete results how this development happens. Studies conducted on the advantage of bilingualism regarding phonological awareness again revealed mixed results.

In a study, Bruck and Genesee (1995) compared monolinguals and sequential bilinguals from kindergarten to first-grade on a set of different phonological tasks. They stated that bilingual children performed better on onset-rime segmentation tasks in kindergarten but they could not do in the following year. On the other hand, the advantage passed to the monolinguals on a phoneme-counting task in the first grade.

In addition to Bruck and Genesee (1995), Campbell and Sais (1995) and Rubin and Turner (1989) conducted studies in order to compare the phonological awareness skills in bilingual and monolingual children. The results of these studies support the bilingual advantage by predicting that children exposing more languages have better performance than their monolingual peers on phonological awareness tasks.

However, Bialystok, Majumder, & Martin (2003) criticized the findings of the studies mentioned above. They stated that “demonstrating a bilingual advantage in the development of phonological awareness for bilingual children requires assuring the generality of the claim” (p. 28) and they proposed that bilingualism could not be the only factor in phonological awareness and the other factors such as age, length of instruction, or language of schooling should be considered. They continued that the diversity of the results on certain tasks between groups could not be concluded, as a bilingual advantage but it could be concluded that there is an interaction between bilingualism and specific tasks. Finally, they proposed that all these issues must be addressed when identifying the effects of bilingualism on metalinguistic awareness.

Bialystok, Majumder, & Martin (2003) continued investigating the issue with different age groups and different tasks in order to eliminate the factors mentioned above. In the first study of the series, phoneme substitution task, in which children were asked to replace the first sound in a target word with the first sound from another word to produce a new word, was employed. They could not find any difference at all between the monolinguals and the bilinguals in this task. Here a problem arose that bilingual children were being tested in English that was not their language of literacy instruction.

A second study conducted with another group. This time participants were tested in language of literacy instruction by using the phoneme substitution task. The results demonstrated no effect of bilingualism in phoneme substitution task. The results indicated that bilingual and monolingual children demonstrate comparable phonological awareness skills when children’s phonological skills are tested in the language in which they receive literacy instruction.

In the third study, they both increased the bilingual groups and phonological tasks to increase the range of assessment. The three tasks, sound-meaning task, phoneme segmentation task, phoneme substitution task, were employed to the two groups of bilingual children. The results stated that there was a bilingual advantage on only one task and for one group – the Spanish-English bilinguals solving the segmentation task. The majority of results from these studies indicated no advantage for bilingual children. Again, although reliable advantages for bilingual children occur under some circumstances, they are constrained by other factors. Bilingualism itself is insufficient to change the path of metalinguistic development.

Aforementioned review of literature suggests that bilingual experience enhances children’s metalinguistic ability particularly on word concept and understanding sound units that make up words (Bialystok, 1986; Cromdal, 1999, Bialystok, 1997; Carlisle, et al., 1999). Bilingual children seem to have greater explicit knowledge of their two languages than those who are monolinguals. In the present study, the metalinguistic ability in Turkish of a sequential Turkish-English bilingual child and of a monolingual Turkish child was evaluated through several tasks related with word awareness and phonological awareness and answers were sought for the following research questions.

1. Does the Turkish English bilingual child have superior metalinguistic skills with respect to word awareness than the monolingual Turkish child?
2. Does the Turkish-English bilingual child have superior metalinguistic skills with respect to phonological awareness than the monolingual Turkish child?

Methodology

Participants

A 2nd grade sequential bilingual child and a 2nd grade monolingual child residing in Çanakkale participated in the study. The sequential bilingual child is 8.2 years old male and has been learning English as a second language for four years at a private school in Çanakkale. He had English lessons, which gradually increased along school years. He studied 5 hours English per week at the age of 5, 6 hours at the age of 6, 8 hours at the age of 7 and 10 hours at the age of 8. He is the only son of Turkish monolingual parents. His father is an optician and his mother is an academician. They both know English but they use Turkish as home language. He spent two weeks in the United States in which his aunt lives and he was exposed to English at a natural environment there.

The monolingual child is 7.8 years old. He has no exposure to a language other than his native language, Turkish. His parents are architecture. He has one elder brother. He is studying in a state school in Çanakkale. He had 3 years of nursery education.

A letter of permission and an inventory about the parents was sent to the parents in order to inform them about the study.

Data Collection Instruments

For each type of metalinguistic awareness considered in the study, three tasks were employed to test the differences on metalinguistic awareness in Turkish regarding the word awareness and phonologic awareness in the bilingual and the monolingual child. The tasks employed in previous studies are adopted into Turkish by the researcher due to the lack of any instruments developed in Turkish in the literature.

The word awareness tasks include “Word Segmentation Task”, “Word Definition Task”, and “Symbol Substitution Task”. For the phonological awareness “Rhyming Task”, “Final Phoneme Deletion Task”, and “Phoneme Blending Task” were employed.

Word Awareness Tasks

Goldsworthy (1996) states that word awareness must occur before a student can begin the task of segmenting words into component sounds (phonemes). For that reason, the word segmentation task employed by Miller et al. (2000 cited in Bassetti 2005) was modified into Turkish. In the present study, children were given ten Turkish sentences such as (<limonatapopülerbiryaziçeçeğidir>) and asked to segment the sentences by drawing a line between words.

The definition task, employed by Snow (1990), Snow et al. (1991), Verhallen & Schoonen (1993) and Carlisle et al (1999) was designed to assess knowledge of the conventions of definitional form for nouns. To date, it is accepted as the only method used to assess word knowledge in depth in a first or second language in an interview task (Snow, 1990). This task involves metalinguistic skill in analysis of knowledge and control of processing (Bialystok, 1991). In that test, participants were asked to define 10 words such as “hat, umbrella, donkey, knife, thief, bicycle, alphabet, clock, diamond, and nail”. The question “What is a _____?” was used to elicit the definitions. In the present study, the same procedure was followed in Turkish. Answers were recorded and transcribed. The adapted version of scoring procedure was utilized.

The symbol substitution task was borrowed from Cromdal (1999) and adopted into Turkish. In this task, participants were informed that they were going to play a vocabulary game in which they would substitute the names of objects with other names, creating nonsense words. The participants were told that the researcher would read a sentence and then he would tell them a word and their task was to change the name of a certain word in each sentence. For example with the given sentence, “Çocuklar okula servisle gidiyorlar” participants were told to substitute the word “Çocuklar” with “Çicek”. The participants were told that this was the rule of the game and it was stressed that they could only change one word in the sentence and they had to use the singular forms of the words. This point was particularly stressed. Practice trials were carried out, with corrections when necessary, until the researcher felt sure that the child understood the task.

The present task was specifically designed to place high demands on children’s ability to control linguistic processing. Making correct substitutions demands the recognition of the arbitrary relationship between word and referent. There were 16 sentences in this task. The first four sentences were related with the subject-verb agreement that required noun for noun substitution. Substitution would result in ungrammatical, but meaningful sentences. The second four sentences required noun for noun substitution and the substituted versions resulted in anomalous, but grammatical sentences. The other four sentences required noun for noun substitution but resulted in both ungrammatical and anomalous sentences. The last four sentences were related with the substitution of noun with postposition in Turkish. These substitutions resulted in both ungrammatical and anomalous sentences.

Phonological Awareness Tasks

The phonological awareness tasks employed in this study were adapted from Karakelle’s (1998) study. The rationale in choosing these tasks was that they were developed by the researcher and reviewed by a group including two experts in Turkish, a primary school teacher, a physiologist and a child development expert.

The first one was the Rhyming Task. In this task, ten sets of items consisting of four words in each were used. In each set, there were four real CVC words. Participants were instructed that they were going to play a word-game. They were read four words with pauses among them and asked to figure out the rhyming ones. (cam, tam, sol, yel)

The second one was the Final Phoneme Deletion Task. There were ten items including meaningful words with two syllables. The participants were told to repeat the word that they heard and retell it without the final phoneme. It was stressed that omission of the final phoneme would create a new word. (yazı →→→ ı →→→ yaz)

The third one was the Phoneme Blending Task. There were ten real words consisting of one or two syllables. Each phoneme was presented orally with pauses between them and then participants were told to combine individual sounds together to say a word. (“c”..... “a”..... “m” →→→ cam)

Procedures

Method of Data Collection

Before the testing process, all metalinguistic tasks were piloted with an eight-year-old Turkish boy to check their comprehensibility regarding the language, meaning, and content. Then several corrections were done on some tasks and the numbers of the examples were decided. It was decided that two examples were enough before each task. The last versions of the tasks were administered in one session at children’s school in a quiet room in December 2008. First phonological awareness tasks were performed and then the word awareness ones. The sessions lasted approximately 25 minutes for each participant. All sessions were recorded and then transcribed. Testing was conducted with the permission of both the children and their parents.

Method of Data Analysis

Different scoring procedures were followed for the word awareness tasks. For word segmentation task, correct separation of each sentence into its words was counted as 1 point. There were ten sentences. Therefore, the highest score could be 10.

Scoring procedures for the definition task was adapted from Carlisle et al (1999). Each definition was scored for its form of formal definition quality (FDQ), and informal definition quality (IDQ). The scoring procedure somehow differed from those used in the original study. Due to the syntactic variation in Turkish, the syntactic content was removed from the measurement scale. Therefore, the quality of definitions was analyzed for semantic content based on a measure. The scale, consisting of two categories of the nature of the superordinate, and the complement, was used to distinguish between well-formed and poorly formed definitions from different perspectives. IDQ reflected the child's ability to provide correct information about a word regardless of definitional form. At this stage, a scale related with the descriptive features was used. Definitions were scored for each with a rating scale.

The first category for the FDQ was the nature of the superordinate. Definitions were ranked from one to three depending on the type of superordinate used. "Real Superordinates," such as "human" scored three, while "Qualified Empty Superordinates" (or "not best" Superordinates) scored two, such as "a bad man". "Empty Superordinates" such as "thing/something/someone" scored one.

The second category, the complement, definition was graded from one to three depending on the appropriateness. "Properly restrictive complements" such as "An umbrella is something to cover you so you won't get wet in the rain" scored 3, whilst "Correct but insufficiently limiting complements" scored 2 as in "An umbrella is something for the rain" and Incorrect or misleading complements for example "An umbrella is a thing that we open" scored 1.

For the informal definition quality, definitions related with the descriptive features and synonym and comparison patterns were awarded one points.

Scoring procedures for the symbol substitution task were adopted from Cromdal (1999). A response was judged as correct only if the child managed the substitution without adapting the new word, semantically and/or grammatically, to the rest of the sentence and without adapting the sentence to the new word. Scoring was based on the number of such successful substitutions. There were 16 sentences, which were grouped into four. One could get 16 points as the highest score.

For the phonological awareness tasks, each correct answer was counted as 1 point. There were 3 tasks and 10 items in each task. Therefore, one can get 30 points as the highest score.

Findings

The findings of the study are presented in the order of the research questions.

Research question 1: Does the Turkish English bilingual child have superior metalinguistic skills with respect to word awareness than the monolingual Turkish child?

Three different tasks related with word awareness were conducted to test the first research question. In the first task, participants were asked to segment ten sentences written without interword spacing in Turkish. Table 1 demonstrates the results of the task. In this task, the Sequential bilingual child performed better than monolingual child. Both English and Turkish have a writing system that marks word boundaries and represents orthographic words. This knowledge might foster sequential bilingual child's success in this task. The most interesting finding in this task is the words "çok" and "iyi". Sequential Bilingual child segmented these words correctly whereas monolingual child could not. This finding may be an example of cross-linguistic transfer from English as these words are written separately such as "very good". In addition, they both struggled to segment the words, which had some inflectional suffixes.

Table 1: Results of the Word Segmentation Task

	Monolingual	Sequential bilingual
Correct Answers	5 / 10	8 / 10
Percentage	50%	80 %

The word definition task's results stated there is almost no difference between the monolingual and sequential child in giving formal definitions and informal definitions. Monolingual child scored 42 out of 60 for the formal definition quality and sequential bilingual achieved 45 out of 60. For the informal definition, quality both of the participants utilized two synonyms for two words, which were resulted as having 2 points. Results were demonstrated in table 2 below. The reason for the similarity of the scores can be explained by requirements of this task. As it was mentioned in the literature, the language of instruction at school was strongly related to the ability to give formal definitions. In the present study, both of the participants instructed at school in Turkish therefore this can be an anticipating result.

Table 2: Results of the Definition Task

	Monolingual	Sequential bilingual
Total Score in I.D.Q	2	2
Total Score in F.D.Q	42/60	45/60

The sequential bilingual children produced a significantly greater number of successful substitutions than their monolingual peers, as can be seen in Table 3. The monolingual child scored 5 out of 16 and he preferred to correct most of the sentences while substituting the given word especially with the ones required subject-verb agreement whereas sequential bilingual child easily accepted the rules of the task and replaced the given words and achieved 12 out of 16. The sequential bilingual child defied to do the substitution unless it was reminded him that this was the rule of the game and then he continued the task in doing correct substitutions. This finding supported the previous related studies in which bilingual children felt themselves freer in disregarding the meaning of the sentence as a whole and followed the formal instruction whereas monolinguals were more wedded to the meaning of the words. It revealed that bilinguals had the awareness of the arbitrary relation between words and their designated meanings.

Table 3: Results of the Symbol Substitution Task

Sentence Type	Monolingual				Sequential bilingual			
	UG/M	A/G	UG/A	UG/A	UG/M	A/G	UG/A	UG/A
Correct Answers	0	3	1	1	2	4	3	3
Total	5				12			

Note: UG= Ungrammatical, M= Meaningful, G= Grammatical, A= Anomalous

Research question 2. Does the Turkish-English bilingual child have superior metalinguistic skills with respect to phonological awareness than the monolingual Turkish child?

Three tasks related to phonological awareness were employed to test the differences between the monolingual child and bilingual child. The first task was the Rhyming task. In this task,

participants reached an equal score. Both of the participants accomplished to catch eight of the rhymed words. However, the results stated that they did not make the same mistakes in finding the rhyming words.

Table 4: Results of the Rhyming Task

	Monolingual	Sequential bilingual
Correct Answers	8/10	8/10
Percentage	80%	80 %

As it is presented in Table 5, both of the participants were succeeded in the final phoneme deletion task. They both performed 10 out of 10 in this task.

Table 5: Results of the Final Phoneme Deletion Task

	Monolingual	Sequential bilingual
Correct Answers	10/10	10/10
Percentage	100%	100 %

In the last task related with phonological awareness, both of the participants again achieved to blend the separately given phonemes and constituted meaning words.

Table 6: Results of Phoneme Blending Task

	Monolingual	Sequential bilingual
Correct Answers	10/10	10/10
Percentage	100%	100 %

These results reflected the claims of the Bialystok, Majumder, & Martin (2003) as stated in the literature. Bilingualism did not directly influence children's acquisition of phonological awareness. There might be a bilingual advantage while children were becoming bilingual but this disappeared by first grade, when literacy instruction was introduced. It appeared that some phonological skills were learned earlier by virtue of learning a specific language that emphasized those structures rather than being a general effect of bilingualism.

Discussion and Conclusions

The purpose of this study was to examine whether a Turkish English sequential bilingual child had superior metalinguistic skills with respect to word awareness and phonological awareness than a monolingual Turkish child. Some of the results of the study did not confirm the majority of the previous studies results. However, they still confirmed some of the results stated in the literature.

The results of the metalinguistic tasks that aim to compare word awareness skills in bilinguals and monolinguals reveal that there is a bilingual advantage in word segmentation ability and word substitution ability. The finding of the word segmentation task supports that bilingual children perform better in tasks when the sentences are left intact and include more than syllabic words (Bialystok,

1986). In accordance with earlier research within the framework outlined by Bialystok and Ryan (1985), the present findings indicate a positive influence of bilingualism on children's ability to control the processing of linguistic information. The bilingual child outperformed the monolingual child in the substitution task. To some extent, this could be taken as evidence for the bilingual subjects' superior concept formation skills. In the present task, participants were required to violate a number of grammatical norms and bilingual child's solution depends on understanding the very nature of representation, a fundamental part of any metalinguistic consideration. The bilingual child was more ready to abandon formal linguistic conventions in favor of an alternative set of rules. The findings of the word definitions can be explained with the language of instruction.

The findings support previous studies (Snow, 1990; Snow et al. 1991) that definitional skill is extensively related to children's exposure to the language used at school, years of schooling and practice. In the study, bilingual participants' instruction language was Turkish. Therefore, a bilingual factor may not be analyzed.

In all of the phonological awareness tasks, no bilingual advantage was found. The reason of these findings can be explained by the instruction language at school. Since the revolutionary in the Turkish language education, schoolchildren started to learn the phonemes at first rather than the letters. Both of the participants were second grade pupils therefore, they had studied phonemes in Turkish for a year at the first grade. On the other hand, the bilingual participant as being a sequential one never taught phonemes consciously in English. All these factors yielded equality in all phonological awareness tasks carried out in Turkish in the study. Furthermore, the results correlated with Bialystok, Majumder, & Martin study (2003) in which they could not find a significant bilingual advantage even if the participants were tested in their instruction language or different languages. They propose that bilingualism by itself cannot be the deterministic factor affecting phonological awareness.

Although the results of the present study were in accordance with most of the studies mentioned in the literature, a few words of caution are in order. The number of participants in the present study was limited. To arrive at some more definite answers to our questions, following studies should be undertaken with larger groups of participant in order to generalize the results. Furthermore, in the present study phonological awareness and word awareness tasks were used only in Turkish, and it is the language of literacy instruction. To get better insight into the processes of cross-language transfer of phonological awareness, the instrumentation of phonological awareness and word awareness in both L1 and L2 can be recommended in future studies.

A final concern is that the study was conducted with a sequential bilingual whose L2 instruction may show variation when compared to other sequential bilinguals.

References

- Bassetti, B. (2005). Effects of writing systems on second language awareness: Word in English learners of Chinese as a Foreign Language. In: V. J. Cook, and B. Bassetti, (eds). *Second Language Writing Systems*. (pp. 335-356) Clevedon, UK: Multilingual Matters.
- Ben-Zeev, S. (1977). The influence of bilingualism on cognitive strategy and cognitive development. *Child Development*, 48, 1009–1018.
- Bialystok, E. (1986). Children's concept of word. *Journal of Psycholinguistic Research*, 15(1), 13-32.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24, 560–567.
- Bialystok, E. (1991). Letters, sounds, and symbols: Changes in children's understanding of written language. *Applied Psycholinguistics*, 12, 75–89.
- Bialystok, E. (1997). Effects of bilingualism and biliteracy on children's emerging concepts of print. *Developmental Psychology*, 33, 429–440.

- Bialystok, E. (2001). *Bilingualism in Development: Language, Literacy, and Cognition*. Cambridge: Cambridge University Press.
- Bialystok, E., & Ryan, E. B. (1985). Metacognitive framework for the development of first and second language skills. In D. L. Forrest-Pressley, G. E. MacKinnon, & T. G. Waller (Eds.), *Metacognition, cognition and human performance* (pp. 207–252). New York: Academic Press.
- Bialystok, E., Majumder, S. & Martin, M. (2003). Developing Phonological Awareness: Is There a Bilingual Advantage? *Applied Psycholinguistic*, 24, 27-44.
- Bowey, J. A. (1988). *Metalinguistic functioning in children*. Geelong, Australia: Deakin University Press.
- Bruck, M., & Genesee, F. (1995). Phonological awareness in young second language learners. *Journal of Child Language*, 22, 307–324.
- Campbell, R., & Sais, E. (1995). Accelerated metalinguistic (phonological) awareness in bilingual children. *British Journal of Developmental Psychology*, 13, 61–68.
- Carlisle, J. F., Beeman, M. M., Davis, L. H., & Spharim, G. (1999). Relationship of metalinguistic capabilities and reading achievement for children who are becoming bilingual. *Applied Psycholinguistics*, 20, 459-478.
- Clark, E. V. (1978). Awareness of language: Some evidence from what children say and do. In A. Sinclair, R. J. Jarvella, & W. J. M. Levelt (Eds.), *The child's conception of language* (pp. 17-43). Berlin: Springer-Verlag.
- Cromdal, J., (1999). Childhood bilingualism and metalinguistic skills: Analysis and control in young Swedish–English bilinguals. *Applied Psycholinguistics* 20, 1-20.
- Cummins, J. (1978). Bilingualism and the development of metalinguistic awareness. *Journal of Cross-Cultural Psychology*, 9, 131–149.
- Edwards, D., & Christopherson, H. (1988). Bilingualism, literacy, and metalinguistic awareness in preschool children. *British Journal of Developmental Psychology*, 6, 235–244.
- Galambos, S.J., & Goldin-Meadow, S. (1990). The effects of learning two languages on levels of metalinguistic awareness. *Cognition*, 34, 1–56.
- Goldsworthy, C. (1996). *Developmental reading disabilities: A Language-based treatment approach*. San Diego, CA: Singular Publishing.
- Hakuta, K. (1986). *Mirror of language: The debate on bilingualism*. New York: Basic Books.
- Ianco-Worrall, A. (1972). Bilingualism and cognitive development. *Child Development*, 43, 1390-1400.
- Karakelle, S., (1998). *Cognitive factors affecting prereading skill acquisition*. Unpublished Ph.D. Thesis, Hacettepe University, Ankara.
- Lane, H. B., Pullen, P. C., Eisele, M. R., & Jordan, L. (2002). Preventing reading failure: Phonological awareness assessment and instruction. *Preventing School Failure*, 46 (3), 101-110.
- Ricciardelli, L. A. (1992). Bilingualism and cognitive development in relation to threshold theory. *Journal of Psycholinguistic Research*, 21, 301–316.
- Roth, F.P., Speece, D.L., Cooper, D.H., & de la Paz, S. (1996). Unresolved mysteries: How do metalinguistic and narrative skills connect with early reading? *The Journal of Special Education*, 30(3), 257–277.
- Rubin, H., & Turner, A. (1989). Linguistic awareness skills in grade one children in a French immersion setting. *Reading and Writing: An Interdisciplinary Journal*, 1, 73–86.

- Smith, C.L., & Tager-Flusberg, H. (1982). Metalinguistic awareness and language development. *Journal of Experimental Child Psychology*, 34, 449–468.
- Snow, C. E. (1990). The development of definitional skill. *Journal of Child Language*, 17, 697–710.
- Snow, C. E., Cancino, H., De Temple, J., & Schley, S. (1991). Giving formal definitions: A linguistic or metalinguistic skills? In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 90–112). New York: Cambridge University Press.
- Tunmer, W. E., Herriman, M. L., & Nesdale, A. R. (1988). Metalinguistic abilities and beginning reading. *Reading Research Quarterly*, 23, 134–155.
- Verhallen, M., and Schoonen, R., (1993). Word definitions of monolingual and bilingual children. *Applied Linguistics*, 14, 344-65
- Vygotsky, L.S. (1962). *Thought and language*. Cambridge, MA: MIT Press.
- Watson, R., & Olson, D. R. (1987). From meaning to definition: A literate bias in the structure of word meaning. In H. Horwitz & S. J. Samuels (Eds.), *Comprehending oral and written language* (pp. 329–353). San Diego: Academic.
- Yelland, G.W., Pollard, J., & Mercuri, A. (1993). The metalinguistic benefits of limited contact with a second language. *Applied Psycholinguistics*, 14, 423– 444.