

Article



Effects of second-language acquisition on character introductions in 5- and 7-year-old bilingual and monolingual children's Frog story narratives



Aslı Aktan-Erciyes

Kadir Has University, Turkey

Burcu Ünlütabak

Nuh Naci Yazgan University, Turkey

Betül Firdevs Zengin

Kadir Has University, Turkey

#### **Abstract**

This study investigates the effects of early second-language (L2) acquisition on introduction of characters in narrative discourse by comparing 5- and 7-year-old monolingual (first-language [L1]=Turkish) and bilingual (L1=Turkish, L2=English) children. Turkish does not have a grammaticalized article system like English which enables to investigate specific influences. The findings revealed that monolingual and bilingual children used similar forms while introducing characters; however, for the Frog character, bilingual children used more appropriate referencing compared to monolinguals. These findings were discussed within the effects of L2 on L1 in terms of introducing characters as well as the amount of exposure to L2.

#### **Keywords**

Bilingualism, referential language, character introduction

#### Corresponding author:

Aslı Aktan-Erciyes, Department of Psychology, Kadir Has University, Cibali Mah. Kadir Has Cad. Fatih/İstanbul 34083, Turkey.

Email: asli.erciyes@khas.edu.tr

### Introduction

Using appropriate references for character introductions in a story is an important aspect of achieving coherence in narrative discourse – such a skill requires not only knowledge of appropriate linguistic forms, but also pragmatic skills. Young children, in preschool years, gradually achieve coherence in their narratives by acquiring forms and functions in their language for conveying whether a referent is new (e.g. *a* boy, using indefinite linguistic forms), given (e.g. *the* boy, using definite linguistic forms) or presupposed (e.g. *he*, using pronouns; Givón, 1989; Gundel et al., 1993).

In English, when a new character is introduced in a narrative, it is typically expressed by use of indefinite forms. However, this expression can also vary depending on the specific characteristics of a language. Some languages, such as English, French and Greek have a formal article system with local cues, such as articles and determiners, for marking the definite versus indefinite distinction (Halliday & Hasan, 1976; Wigglesworth, 1990). On the contrary, some other languages such as Turkish, Finnish and Chinese do not have a formal article system; instead, they use clause-level global cues such as word order, case marking and optional lexical markers to indicate the definite versus indefinite distinction (Dasinger & Küntay, 1998; Hickmann & Hendriks, 1999). For instance, in Turkish, young children can use bare noun phrases (NPs) for character introductions, and express indefiniteness of a referent via the clause structure, word order, case marking or with the use of the numeral 'one' in combination with other strategies (Erguvanlı-Taylan, 1984; Küntay, 2002). In addition, unmarked bare nouns in the preverbal position are considered as indefinite, while those marked by accusative case are considered as definite (Dede, 1986); see Table 1 for Turkish linguistics forms that can be used in character introductions in narratives.

Bilingual children who are acquiring both Turkish and English learn the forms and functions in both languages, and participate in everyday activities where they can indicate the indefiniteness of a newly introduced character using a formal article system in English, or just a bare NP in Turkish. Having the flexibility to use appropriate linguistic forms in both languages across different contexts can be an important milestone for bilingual children. This presents both challenges and opportunities in the process of bilingual development. Referentiality is studied mostly in first-language (L1) acquisition research. Previous studies examining referentiality in bilingual development are rather limited. Evidence from bilingual development research so far suggests that the referential properties of languages can be influential on how characters are introduced in L1 and L2; however, this might not be the only factor affecting referentiality (Andreou et al., 2015; Chen & Lei, 2013; Jia & Paradis, 2015; Serratrice, 2007). The linguistic forms of learned languages as well as exposure context (e.g. exposure to L2 in school or at societal level) might be other contributing factors. Thus, more research in different languages is needed to shed light on how such coherence is achieved in bilingual development.

The present study investigates the effects of early L2 acquisition when introducing characters in narrative discourse by comparing 5- and 7-year-old monolingual and bilingual children. The bilingual children of the present study started immersion L2-English schools as early as 3 years of age, when L1 grammar had not been fully established. As their L2 performance assessed by language test indicates a native-like performance they

Table 1. Nominals in Turkish used for character introductions.

Nominals in Turkish (in new to given inf	ormation order)
Indefinite noun phrase	Bir çocuk 'one/a child'
Bare noun phrases	Çocuk 'child' (definite if in preverbal position: e.g.
	Çocuk kurbağayı aradı '[The]Child looked for the
	frog'; interpretation is based on sentence structure)
All modified and case-marked nouns	Çocuğun kurbağası kayıp 'the boy's frog is lost'
Pronouns	O koştu 'He ran'
Pronoun drop	Koştu '[He] ran'

qualify to be categorized as bilinguals but not L2 speakers. There have been cross-linguistic studies comparing referentiality in children who speak Turkish, English or Greek (Aksu-Koç & Nicolopoulou, 2015); however, there is not much information on how the process occurs in the case of bilingual acquisition of these languages. In order to address this need in the literature, we asked three questions; (1) Which linguistic forms do monolingual (L1: Turkish) and bilingual (L1: Turkish L2: English) children use in the introduction of characters? (2) Do bilingual and monolingual children differ in the linguistic forms they use for introducing characters in L1-Turkish? (3) Do bilinguals differ in their L1-Turkish and L2-English? The present study adds to the prevalent literature that addresses the acquisition of L2 and effects on L1 in two novel ways: first, the effects of L2 on L1 is mostly studied in L2-dominant contexts where L1 is not the societal language (e.g. Cummins, 2001; Pearson, 2002 among others). However, the present study addresses this issue in the L1-dominant context where L2 exposure is limited to schooling context. Also, for the bilingual group of the present study, the L2 exposure amount changes in two age groups. The 5-year-old bilingual group was exposed to L2-immersion L2 preschool for 3 years, while the 7-year-old bilingual group, after completing the same L2-immersion preschool, attended a Turkish-dominant primary school for 2 years around age 6. Thus, L2 exposure changed from full-time L2-immersion to L1-dominant context for the 7-year-old group, which further allows us to also investigate the consequences of this change.

## Development of referentiality and its relations to narrative competence

Introducing characters properly in a narrative is essential for the proper communication and collaborative meaning-making process. As young children's narrative skills develop, they start using appropriate referential forms to identify characters in their stories (e.g. Arnold & Griffin, 2007; Wong & Johnston, 2004). Previous research suggests that becoming a fluent speaker of a language, and having knowledge of all linguistic forms are not sufficient for being able to express definite versus indefinite distinction when introducing characters in narrative discourse. Regardless of the structure of the language for marking indefiniteness (i.e. global or local markings), at only around 6 years of age, children begin to mark new information using indefinite forms and become fully proficient in contrastive use of definite and indefinite forms around 7 years of age (Hickmann et al., 1996; Küntay,

2002; Küntay & Koçbaş, 2009; Nakamura, 1993). This protracted development suggests that children learn to use some linguistic strategies as well as linguistic forms for becoming competent speakers of a language. Therefore, it is important to explore the processes involved in the development of referentiality, especially when children are acquiring forms and conventions of more than one language (i.e. bilinguals).

# Cross-linguistic comparison of different referential systems: the case of Turkish and English

Studies in different languages (i.e. Mandarin Chinese, English, French and German) show that marking (in)definiteness of a newly introduced character is not accomplished fully before age 10 years (Hickmann et al., 1995, 1996). However, it is an important question whether children learning different languages acquire this ability around the same ages. For instance, having a formal article system guides a child for encoding (in) definiteness. In Mandarin Chinese, marking of (in)definiteness is accomplished through word order, where new referents are obligatorily placed after verbs. Hickmann et al. (1995, 1996) and Hickmann and Liang (1990) compared Chinese-speaking children at ages 4, 7 and 10, as well as adults in picture story narratives based on introducing characters. The findings indicated that younger Chinese children prefer nominal referencing that indicates a prolonged period to use word-order devices. Chinese children's data were compared with English, French and German children of the same age groups. The results indicated that children who speak a language with a formal article system (i.e. English, French and German) were nearly performing at adult-like levels at 10 years of age. However, 10-year-old Chinese (i.e. a language without a formal article system) children were far from performing adult-like levels unlike their English, French and Germanspeaking peers even around 10 years of age. This indicates a prolonged course of development for global markings of referent identifiability for Chinese children. Thus, the presence or lack of a formal article system in a language has an impact on the pace of development of referential communication.

The English referential system. English has a grammaticalized article system in representing the definite (the) – indefinite (a/an) distinction without requirement of gender agreement between the article and the noun (1–2). Gender distinction in the pronominal system is present for third-person singular (he or she) as well as the possessive determiners in the third-person singular and in the possessive determiners (her or his/its). While the demonstrative determiners are marked with plural (these/those flowers), the definite and possessive determiners are not. Bare nouns are used to express indefinite plural and mass nouns. The word order in English is strict and marks the expression of grammatical relations:

- 1. There was a boy [Intro a boy: indefinite N]
- 2. The boy [Intro boy: definite N] lost the frog [Intro frog-ACC: definite N].

The Turkish referential system. Unlike English, Turkish does not have a grammaticalized article system to mark definite versus indefinite distinction. Turkish has a standard subject—object—verb order, but it is flexible as grammatical relations are marked with case

markings (Erguvanlı-Taylan, 1984). In order to mark indefiniteness, Turkish speakers can also use the numeral *bir* ('one') before NPs. Suffixes can occur in indefinite NPs as well but accusative case markings on direct objects signify definiteness (Erguvanlı-Taylan & Zimmer, 1994). Bare nouns can signify definiteness or indefiniteness, depending on word order. Bare nouns in the initial position in a sentence generally signify indefiniteness, whereas bare nouns in the preverbal position signify definiteness. There is no gender distinction in Turkish, either for nominal or pronominal usage. Also, Turkish is a pro-drop language which allows for both subject and object ellipsis (3–4).

- 1. *Çocuk* [Intro boy: definite N] *kurbağasını* [Intro frog: definite N] *seviyordu*Boy [his] frog-POSS like-PAST PROG
  [The] boy was liking his frog
- Köpek [Intro dog: definite N] oturuyordu
   Dog sit-PAST PROG
   [The] dog was sitting

As shown, English and Turkish differ in the way they mark definite versus indefinite referents. The literature shows that English-speaking children (3-, 4- and 5-year-olds) are more successful in character introductions (i.e. using indefinite forms) when compared with their Turkish-speaking peers who mostly use definite forms (Aksu-Koç & Nicolopoulou, 2015). In the following section, we summarize how knowing two languages may affect referentiality in general and character introductions in particular.

## Effects of bilingualism on character referencing in narratives

Compared with studies of character referencing in monolingual children, there are fewer studies that involve bilingual children. Although the results in the literature do not seem to be conclusive, studies point out both similarities and differences in how patterns of character referencing emerge in both monolinguals and bilinguals. A case study by Álvarez (2003) examined the development of character introduction in a Spanish-English simultaneous bilingual child living in Spain. The child's father always spoke to him in English. Alvarez collected oral narratives in both English and Spanish from the child from age 7–12 years on a yearly basis in school contexts using the wordless picture storybook Frog, Where Are You? (Mayer, 1969). The results showed that the use of appropriate introductions increased with age in both English (from 56% at age 7% to 89% at age 11) and in Spanish (from 78% at age 7% to 100% at age 11). Álvarez concluded that the development of character referencing was at the same rate as a monolingual child for this bilingual child. Similarly, Serratrice (2007) showed that Italian-English bilingual children aged between 6 and 10 years performed similarly in character introduction, maintenance and reintroduction in elicited Frog stories compared to their monolingual peers. However, there are also studies that point out differences between bilinguals and monolinguals (e.g. Chen & Lei, 2013; Jia & Paradis, 2015). Chen and Lei (2013) investigated 9-year-old Chinese-English bilingual children living in the United States and showed that compared with English monolinguals, they used fewer indefinite NPs in

introducing characters. No differences were found between Chinese monolinguals and bilinguals. However, Jia and Paradis (2015) found that Chinese-English bilinguals aged 6-10 years, used more indefinite NPs compared with Chinese monolinguals in introducing characters. In a study by Topaj (2010), German-Russian bilingual children aged 4–7 years used fewer indefinite NPs compared with German monolinguals in Hickmann et al.'s (1996) study, depicting almost half of the regular usage. The main reason for the differences above might be variances in the referential systems that language pairs have. Bilinguals who learn a language that encodes character references different from their L1 might find it hard to adjust the requirements of their L2 or vice versa, such as in the case of Chinese-English (Chen and Lei, 2013; Chen & Pan, 2009; Jia and Paradis, 2015) or Russian-English (Topaj, 2010). Andreou, Peristeri and Tsimpli (2020) investigated the L1 effects on referential expressions to maintain characters in the narratives of 5- to 11-year-old Albanian-Greek and Russian-Greek typically developing children and children with developmental language disorder. The results indicated a combined effect of L1-specific typological properties as well as language impairment. Another recent study indicated that bilinguals share reference strategies across two languages beyond crosslinguistic effects, which might indicate that individual variation is another factor to be considered (Andreou, Torregrossa, & Bongartz, 2020). By contrast, when language pairs have similar referential systems, such as in the case of English and Italian (Serratrice, 2007), bilinguals perform similar to monolinguals.

However, the similarity of referential systems of language pairs does not seem to be the only determinant in explaining differences between monolinguals and bilinguals. Although language pairs may have similar referential systems, there may be differences between bilingual and monolinguals. Andreou et al. (2015) found that Greek–German bilinguals and Greek monolinguals performed similarly. However, in Greek, bilinguals living in Germany produced fewer indefinite NPs in introducing characters compared with bilinguals living in Greece and monolinguals. This may also be related to the input quality and quantity received in L2. The authors also concluded that the differences in choice of referential forms may be an artefact of the language dominance.

Overall, character referencing in introduction of narratives in bilinguals and monolinguals may be influenced by many factors. The present study investigates whether the presence or absence of a formal article system may be a factor on how characters are introduced in Turkish and English languages. For this purpose, we compared bilingual and monolingual 5- and 7-year-old children's Frog story narratives based on how they introduced the characters. We also compared bilingual children's L1 and L2 narratives in order to investigate cross-linguistic differences. We focused on the main character, boy, and two second characters, dog and frog. We expected to find more adequate introductions, that is, more usage of indefinite nominals, in bilinguals' narratives compared to monolinguals due to the presence of the formal article system in L2. We also asked how changes in L2-immersion schooling to L1-dominant schooling influence the L2 effects on L1. In order to address these questions, we tested 5- and 7-year-old high-SES (socioeconomic status) monolingual and high-SES bilingual children. By testing 5-year-old bilinguals, we were able to investigate the effects of L2-immersion context schooling and by testing 7-year-old bilinguals, we were able to address L1-dominant schooling (i.e. L1-dominant instruction starts around 6 years of age) effects. Due to the fact that our

5-year-old bilinguals are exposed to L2 for 3 school years, however, our 7-year-old bilinguals have switched to L1 dominant schooling at the age of 6, we expected to find a more pronounced effect of L2 for 5-year-olds.

#### Method

## **Participants**

A total of 112 children participated in the study, which comprised 54, 5-year-old ( $M_{age}$ =69 months, SD=3.76) and 58, 7-year-old ( $M_{age}$ =91 months, SD=4.33) bilingual and monolingual children. There were 51 bilingual (25 females) and 61 monolingual children (34 females). Two children who lacked the narrative skills task data were excluded. All the children had Turkish parents and were raised in Turkish households. Parents filled out a demographic form indicating parental education and income as well as language practices at home. The form was created by the authors and included items regarding book reading, singing, playing and watching TV in L2. All families were of high socio-economic standing and the mother's level of education between the two groups did not differ: t(110)=-1.64, p=.103.

The sample for monolingual children consisted of children who attended full-time Turkish preschools and elementary schools. The bilingual sample consisted of children who attended preschools that had 40 hours of English instruction on a weekly basis and elementary schools of these preschools. These children have been attending English instruction schools starting as early as 3 years of age. All the participants were from high SES backgrounds. Both the 5- and 7-year-old bilinguals attended an English-immersion preschool for 3 years between the ages of 3 and 6 years. Seven-year-old children started primary school at the age of 6 years. Due to the legislation of the Ministry of Education, primary schools can only be Turkish-dominant. Therefore, the 5-year-old bilingual group consisted of children who were tested at the end of their third year in the preschool while the 7-year-old bilingual group consisted of children who, after completing the same preschool, attended a Turkish-dominant primary school for 2 years (L2-English was 10 hours/week) and were tested at the end of the second grade. Thus, all bilingual children attended English immersion preschools for 3 school years.

#### Materials

Narrative skills task. Children were given a narrative skills task which required them to narrate a wordless picture book, Frog. Where Are You? (Mayer, 1969). The narratives were collected in Turkish by an experimenter who pretended to encounter the story for the first time so that the children would tell the story with more enthusiasm and detail. The child was led to this thought by placing the same story in different coloured envelopes and letting the child choose which story to tell to the experimenter. The child first had a look at all the pictures from the beginning till the end and when she or he was ready started to narrate the story while still having the book in front of her or him to have a look at the pictures. The storytelling session was videotaped and later transcribed for analysis. Bilingual children narrated the same story within 2 weeks after the first session to a different English-speaking experimenter.

Language competence task. We used TİFALDİ-R (Turkish Receptive and Expressive Language Test – Receptive Subtest) to assess children's Turkish competence. We used PPVT-4 to assess English competence of bilingual children. These tasks were used as control variables to make sure that variances did not stem from differences in language capabilities.

TİFALDİ-R (Berument & Güven, 2010) is a standardized tool to assess the knowledge of vocabulary in Turkish children 2–12 years of age. The receptive vocabulary subscale (TİFALDİ-R) consisting of 104 items was administered. The aim of the task is for the child to select one picture that best illustrates the meaning of the stimulus word out of the four pictures presented during each item.

In order to assess English vocabulary in bilingual children, PPVT-4 (Dunn & Dunn, 2015) was used. This instrument used in measuring receptive vocabulary of children and adults consists of 228 test pages with four full-colour pictures as response options on a page. The PPVT-4 was administered by an English-speaking experimenter, different from the one implementing TİFALDİ.

### Procedure

The data were collected near the end of the term to ensure the maximum exposure to L2-immersion preschool education. Thus, 5-year-old bilinguals had been exposed to English immersion education for approximately 3 years when data collection was held. Moreover, 7-year-old bilinguals were about to complete 2 years in the Turkish elementary education after having attended the L2-English immersion preschool. All children were tested in the school setting in a quiet room. Turkish sessions were always performed first. Following the completion of Turkish sessions within a maximum of 2 weeks, English sessions were administered. English sessions were administered only to the bilingual group in the following order: narrative skills task, PPVT-4.

## Coding

The coding scheme for the narratives included the usage of referential forms during storytelling. These forms were categorized as (1) *indefinite nominal*, (2) *definite nominal*, (3) *pronoun drop* (only for Turkish) and (4) *pronoun*. Although pronoun drop does not exist in English the same coding scheme was used for English narratives (see Table 2 for details of coding and examples). To establish reliability, two independent coders took part in the coding process. Reliability was calculated via intraclass correlation coefficients (ICC). A high degree of reliability was found between the two coders ICC=.943 with a 95% confidence interval from .912 to .972.

#### Results

# Language competence in L1 and L2

*TIFALDI-R*. There was no difference in the performance of monolinguals and bilinguals on this test: F(1, 108) = 41.1, p = .53,  $\eta_p^2 = .004$ . As expected, 7-year-olds performed better than 5-year-olds: F(2, 108) = 91.1, p < .001,  $\eta_p^2 = .46$ .

Linguistic forms	Turkish referential system	English referential system
Indefinite nominal	+use of bir 'one' before noun e.g. Bir çocuk varmış.	+a/an before noun e.g. There is <i>a boy</i> .
Definite nominal	+bare noun phrase in sentence initial position e.g. Çocuk uyumuş.	+the before noun e.g. The boy is sleeping/slept?
Pronoun	+O 'he/she' substituting for the subject e.g. O köpeğe kızmış	+ He/she substituting for the subject e.g. He got mad at the dog
Pronoun drop	+subject ellipsis, verb has personal suffix <i>lar</i> indicating [onlar 'they'] e.g. [Onlar] kurbağayı aramışlar.	-e.g. [They] looked for the frog

Table 2. Coding categories for linguistic forms in Turkish and English.

*PPVT-4*. This test was completed by only bilingual children. The results showed that 7-year-olds' vocabulary competence in English corresponded to 6:1 age level and 5-year-olds' scores corresponded to 4:2 age level of monolingual English-speaking children. Again, 7-year-olds performed better than 5-year-olds: F(1, 47) = 17.89, p < .001,  $\eta_p^2 = .28$ .

# Linguistic forms monolingual and bilingual children use in L1-Turkish and L2-English for the introduction of characters

Our first research question was whether bilingual and monolingual children differ in their character introductions in L1-Turkish. To address our first research question, we used Wilcoxon-signed rank tests to explore the linguistic forms (*indefinite nominal*, *definite nominal*, *pronoun drop* and *pronoun*) used by monolingual and bilingual children (5- and 7-year-olds) when they were introducing the *boy*, *dog* and *frog* characters in their narratives. The mean percentages of linguistic forms used by each age group are presented in Table 3. All percentages were taken based on the average number of times boy, dog and frog characters were introduced in four possible structures (pronoun-drop, pronoun, definite nominal, indefinite nominal) with respect to the total number of introductions per character. For L1-Turkish narratives, we examined not only the use of linguistics forms across ages 5 and 7 years, but also compared monolinguals and bilinguals. For L2-English narratives, we examined the use of linguistic forms by bilinguals across ages 5 and 7 years. In the following sections, we first present the results for L1-Turkish narratives and then for L2-English narratives.

## Introduction of characters in L1-Turkish narratives

Monolingual 5-year-olds. Boy: In introducing the boy character, monolingual 5-year-olds dominantly used definite nominal more than indefinite nominal, pronoun and pronoun drop, (Z=3, p=.003), (Z=3.8, p<.001) and (Z=4.5, p<.001), respectively. They preferred to use indefinite nominal significantly more than pronoun drop (Z=2.2, p=.03) but not more than pronoun. There was no difference between using pronoun drop and pronoun.

Table 3. Means and standard deviations of linguistic forms used in character introductions in LI-Turkish and L2-English.

	Boy					Dog						Frog					
	5-year-olds		7-year-olds	qs	rγ	5-year-olds		7-y	7-year-olds		2,	5-year-olds		15	7-year-olds		
	Monolingua	Monolingual Bili	ual Monoling )	ual Bilingual (TR)	Bilingual M (ENG)	lonolingual	Bilingual (TR)	Bilingual Mc (ENG)	nolingual	Bilingual (TR)	Bilingual 1 (ENG)	Monolingual	Bilingual (TR)	Bilingual (ENG)	Monolingua	Bilingual (TR)	Bilingual (ENG)
Indefinite		indefinite .19 (.40) .32 (.48) .39 (.46) .17 (.37) .20 (.41) .37 (.46) .05 (.19) .04 (.20) .54 (.44) .04 (.18) .16 (.37) .31 (.41) .20 (.40) .60 (.50) .67 (.48) .24 (.42) .36 (.49) .50 (.46) .00 (.40) .50 (.46)	(37) (37)	.20 (.41)	.37 (.46) .0	(61.) 20	.04 (.20)	.54 (.44) .04	. (81.)	.16 (.37)	.31 (.41)	.20 (.40)	.60 (.50)	.67 (.48)	.24 (.42)	.36 (.49)	.50 (.46)
Definite nominal	.74 (.45)	Definite 74 (45) .44 (50) .17 (33) .71 (45) .40 (.50) .16 (.33) .87 (.31) .77 (.42) .19 (.28) .84 (.36) nominal	33) .71 (.45)	.40 (.50)	9. (86.) 91.	(131)	.77 (.42)	.19 (.28) .84		.62 (.48)	.31 (.41)	.62 (.48) .31 (.41) .78 (.42) .40 (.49) .33 (.37) .74 (.44) .64 (.49) .43 (.44)	.40 (.49)	.33 (.37)	.74 (.44)	.64 (.49)	.43 (.44)
Pronoun	.07 (.27)	Pronoun .07 (.27) .09 (.28) .44 (.48) .03 (.17)	(17) :03 (17)	.08 (.28)	.08 (.28) .47 (.49) .01 (.06)	(90.) I	.08 (.28)	.08 (.28) .27 (.33) –		1	.37 (.44) .002 (.01)	.002 (.01)	1		.002 (.01)	1	.07 (.20)
Pronoun	1	.15 (.36) –	.09 (.29)	.32 (.48) –		.07 (.23)	.11 (31)	.11 (.31) – .12 (.31)		.22 (.41) –	1	.02 (.10)	1	1	.02 (.09)	1	1
drop																	

Dog: Monolingual 5-year-olds produced definite nominal the most when introducing the dog, followed by pronoun drop, indefinite nominal and pronoun (Z=4.4, p<.001), (Z=4.8, p<.001) and (Z=4.5, p<.001), respectively. There was no difference between usage of pronoun drop and pronoun as well as indefinite nominal. Again, there was no difference in using pronoun and indefinite nominal.

Frog: In the introduction of the frog character, again definite nominal was used significantly more than indefinite nominal, pronoun drop and pronoun, (Z=3.1, p=.002), (Z=4.6, p=.000) and (Z=4.5, p<.001), respectively. Five-year-old monolinguals preferred to use indefinite nominal more than pronoun drop (Z=2.2, p=.02) and pronoun (Z=2.3, p=.02). Thus, the dominant linguistic form was definite nominal followed by indefinite nominal.

Monolingual 7-year-olds. Boy: Like 5-year-olds, monolingual 7-year-olds used definite nominal significantly more than indefinite nominal, pronoun drop and pronoun, (Z=3.4, p=.001), (Z=3.9, p<.001) and (Z=4.5, p<.001), respectively. Although indefinite nominal ranked second it did not differ significantly from pronoun drop and pronoun. There was no difference in using pronoun drop and pronoun.

Dog: To introduce the dog character, 7-year-old monolinguals preferred definite nominal the most, followed by pronoun drop, indefinite nominal, (Z=4.4, p<.001) and (Z=5.2, p<.001), respectively. No pronoun was used in introducing the dog and a very small number of indefinite nominals such that there was no difference between usage of pronouns and indefinite nominals. There was also no difference in using either indefinite nominal or pronoun drop.

Frog: In introducing the *frog* character, 7-year-old monolinguals used dominantly *definite nominal* followed by *indefinite nominal, pronoun drop* and *pronoun* (Z=3, p=.002), (Z=4.9, p<.001) and (Z=4.8, p<.001), respectively. *Indefinite nominal* was preferred significantly more than *pronoun drop* and *pronoun* (Z=2.7, p=.007), (Z=2.8, p=.005). There was no difference between *pronoun drop* and *pronoun*.

Bilingual 5-year-olds. Boy: Bilingual 5-year-olds introduced the boy character using indefinite nominal and definite nominal the most and there was no significant difference between the two linguistic forms. Definite nominal and indefinite nominal were preferred significantly more than pronoun drop, (Z=2.1, p=.03) and pronoun, (Z=2.5, p=.01). Pronoun drop did not differ from pronoun and indefinite nominal.

Dog: To introduce the dog character, bilingual 5-year-olds used definite nominal significantly more than all the other linguistic forms; namely pronoun drop, (Z=3.7, p<.001), pronoun, (Z=3.7, p<.001) and indefinite nominal, (Z=4, p=.000). Pronoun drop did not differ from pronoun or indefinite nominal (Z=.14, p=.89), (Z=.76, p=.45), respectively. There was no difference between pronoun and indefinite nominal production.

Frog: In the introduction of the frog character, bilingual 5-year-olds used indefinite nominal and definite nominal more than pronoun and pronoun drop – which did not appear in the narratives. Indefinite nominal did not differ from definite nominal (Z=1.2, p=.23) but differed significantly from pronoun and pronoun drop (Z=3.9, p<.001). Definite nominal also differed significantly from pronoun and pronoun drop (Z=3.9, p=.002) for both.

Bilingual 7-year-olds. Boy: Bilingual 7-year-olds used dominantly definite nominal and pronoun drop forms to introduce the boy character. Definite nominals were used more than pronouns (Z=2.3, p=.02). Pronouns were produced the least; however, it did not significantly differ from pronoun drop and indefinite nominal.

Dog: In the introduction of the dog character, 7-year-old bilinguals preferred definite nominals the most, compared to indefinite nominals (Z=2.5, p=.01) and pronoun drop (Z=2.2, p=.02). There was no significant difference between pronoun drop and indefinite nominal. Pronouns did not appear for introducing the dog character.

*Frog*: To introduce the *frog* character, bilingual 7-year-olds used only two linguistic forms: *definite* and *indefinite nominals*. They did not use *pronouns* and *pronoun drops*. There was no difference between *definite* and *indefinite nominal*.

# Comparison of monolingual and bilingual children in introducing characters for L1-Turkish narratives

Our second research question was whether bilingual and monolingual children differ in linguistic forms they use for introducing characters. To compare bilinguals and monolinguals for the differences in each of the linguistic forms used in Turkish, we conducted multinomial logistics regression in SPSS 26, taking boy, dog and frog introduction variables as dependent variables and language group (bilingual vs monolingual) and age group (5- vs 7-year-olds) as independent variables. Thus, for each character we compared each possible pair of linguistics forms and investigated whether language group or age had an effect on choosing either of them. For the dog character neither bilingual nor monolingual group used pronouns, therefore paired comparisons did not include those pairs. Finally, for the frog character, bilingual group did not use pronoun and pronoun drop, therefore comparison was only computed for indefinite nominal and definite nominal pair.

The summary of multinomial logistic regression analyses for boy, dog and frog characters is shown in Table 4.

For the introduction of *boy* character, there was no effect of age on use of any linguistic forms. Thus 5- and 7-year-olds performed similarly. However, there was an effect of language group on the comparison of *indefinite nominal* and pronoun *drop*. While bilinguals used *pronoun drop* almost as much as *indefinite nominal*, monolinguals use *indefinite nominal* more than *pronoun drop*.

When introducing the *dog* character, again there was no effect of age on the choice of linguistic forms. There was no effect of language group on introducing the characters. Both bilingual and monolingual groups used similar choices when possible pairs of linguistic forms were compared.

Finally, for the frog character, there was only an effect of language group. While bilinguals used *indefinite nominals* and *definite nominals* nearly the same amount monolinguals used *definite nominals* more than *indefinite nominals*.

## Introduction of characters in L2-English narratives

Bilingual 5-year-olds. Boy: In the introduction of the boy character, 5-year-old bilinguals in their English narratives used pronoun (M=.44, SD=.48) dominantly, followed by indefinite nominals (M=.39, SD=.46) and definite nominals (M=.17, SD=.33). There

Table 4. Summary of the multinomial lo	istic regression analyses f	for linguistic forms for each
character.		

Воу		Age			Language group			
			Estimate	SE	Wald Z	Estimate	SE	Wald Z
Indef nom	VS	Pronoun drop	2.85	0.66	2.50	5.66	0.65	7.04*
Indef nom	VS	Pronoun	0.48	0.76	0.92	2.25	0.73	1.24
Indef nom	VS	Definite nom	0.89	0.48	0.06	2.04	0.48	2.18
Definite nom	VS	Pronoun drop	3.21	0.72	2.65	2.77	0.72	2.01
Pronoun	vs	Definite nom	1.83	0.86	0.55	0.91	0.79	0.02
Pronoun drop	VS	Pronoun	0.17	0.92	3.68	0.4	0.91	1.04
Dog								
Indef nom	vs.	pronoun drop	1.99	0.66	1.09	2.19	0.63	1.54
Indef nom	vs.	definite nom	2.54	0.87	1.13	3.94	0.87	2.48
Definite nom	vs	Pronoun drop	0.78	1.04	0.06	0.56	1.02	0.33
Frog		·						
Indef nom	vs	Definite nom	18.0	0.42	0.25	3.27	0.42	8.05*

SE: standard error.

was no difference between *pronoun* and *definite nominal* (Z=1.5, p=.13), and *pronoun* and *indefinite nominal* (Z=.26, p=.80). Children's preference for *definite* and *indefinite nominals* did not differ significantly (Z=1.3, p=.21).

*Dog*: To introduce the *dog* character, 5-year-old bilinguals used *indefinite nominal* (M=.54, SD=.43), pronoun (M=.27, SD=.33) and *definite nominal* (M=.19, SD=.28). *Indefinite nominal* did not differ significantly from *pronoun* and *definite nominal* (Z=1, p=.32), (Z=1.4, p=.16), respectively. Also, *pronoun* and *definite nominal* did not differ significantly, (Z=.45, p=.70).

Frog: In the introduction of the frog character 5-year-old bilinguals, used indefinite nominal (M=.60, SD=.48) and definite nominal (M=.40, SD=.37), they did not differ significantly (Z=1.2, p=.25). Bilingual 5-year-olds did not use any pronoun and pronoun drop and therefore there was a significant difference between these structures and definite and indefinite nominals.

Bilingual 7-year-olds. Boy: To introduce the boy character in their English narratives, 7-year-old bilinguals used three linguistic forms equally: pronoun (M=.47, SD=.49) indefinite nominal (M=.37, SD=.46) and definite nominal (M=.16, SD=.33). There was no difference between pronoun compared to definite nominal and indefinite nominal (Z=1.7, p=.08) and (Z=.50, p=.60), respectively. Similarly, usage of definite and indefinite nominal was not significant (Z=1.2, Z=.21).

Dog: In the introduction of the dog character, 7-year-old bilinguals used again pronoun (M=.31, SD=.44) definite nominal (M=.31, SD=.41) and indefinite nominal (M=.37, SD=.44) approximately equally. There were no significant differences between the three forms; pronoun, definite nominal and indefinite nominal, all Zs < .30, ps > .77.

p < .05; p < .01; p < .001.

<sup>\*</sup>significant

Frog: To introduce the *frog* character, 7-year-old bilinguals mostly preferred *indefinite nominal* (M=.50, SD=.46) and *definite nominal* (M=.43, SD=.44), which did not differ (Z=.33, p=.74). Very few *pronouns* (M=.07, SD=.20) were also used and children preferred to use *pronouns* less than *indefinite nominal* (Z=2.1, p=.034) and *definite nominal* (Z=2.2, p=.025).

#### **Discussion**

The present study investigated how learning an L2 which has a formal article system affects character referencing in both L1 and L2. We investigated the dominant linguistic forms that monolingual (L1: Turkish) and bilingual (L1: Turkish L2: English) children use in the introduction of characters. We asked whether bilingual and monolingual children differ in linguistic forms they use for introducing characters. Finally, we investigated how bilinguals differ in their L1-Turkish and L2-English. We expected that bilingual children would use more adequate introductions, that is, more usage of *indefinite nominals*, compared to monolinguals due to the presence of the formal article system in L2. Due to the fact that our 5-year-old bilinguals are exposed to L2 for 3 school years, however, our 7-year-old bilinguals have switched to L1 dominant schooling at the age of 6 years, we expected that there would be a more pronounced effect of L2 on L1 character introductions for 5-year-old bilinguals compared with 7-year-old bilinguals.

We tested 5- and 7-year-old bilingual and monolingual children in a narrative elicitation task using a wordless picture book Frog, Where Are You? (Mayer, 1969). We first investigated the dominant linguistic forms that monolingual and bilingual children used, separately. For L1-Turkish, both 5- and 7-year-old monolingual children in our study used definite nominals dominantly to introduce all characters: boy, dog and frog. Likewise, bilingual children also used definite nominals dominantly in introducing the boy and the dog. However, for the frog character, the pattern was different: 5-year-old bilinguals used indefinite nominals dominantly in introducing the frog, whereas 7-yearold bilinguals used indefinite nominals as much as definite nominals for the same character. These findings for monolingual and bilingual children are in line with that in the literature. It is only around 6 years of age that children begin to mark new information using indefinite forms and it is not before 7 years of age that they become proficient in contrasting definite and indefinite forms (Hickman et al., 1996; Küntay, 2002; Küntay & Koçbaş, 2009; Nakamura, 1993). Likewise, for Finnish, which is not an article-bearing language, children provided explicitly definite forms instead of indefinite NPs at around 8 years of age (Mäkinen et al., 2014). Therefore, especially for the main characters, the boy and the dog, both bilingual and monolingual children exhibited age-expected patterns. It is only for the character frog that we examined differences in patterns of introducing for bilingual children. More specifically, 5-year-old bilingual children used dominantly indefinite nominals for introducing the frog, while 7-year-old bilinguals were indifferent to using either definite nominals or indefinite nominals for introducing the frog. One reason for this observation can be related to story complexity and characters' dominance. In other words, the boy is the protagonist, while the frog is the side character. Although the frog is the side character, the plot is mainly around the frog's disappearance as well as the boy and the dog's effort to find the frog. Previous research

suggests that when children narrate a story with the main and secondary characters, they introduce the main character with definite forms and the secondary character with indefinite nominals (Kail & Hickman, 1992; Küntay, 2002; Ünlütabak & Aksu-Koç, 2015). This is a referential strategy used by adults as well (Arnold & Griffin, 2007) and can be related to cognitive and linguistic demands of narrating a story with more than one main character. Another reason can be related to children's schooling experience, especially for age-related differences: 5-year-old bilinguals were exposed to immersion L2-English instruction from age 3 to date, however 7-year-old bilinguals have switched to L1-Turkish dominant schooling at age 6 years. Therefore, the L2 effects might be more pronounced for 5-year-old bilinguals compared with 7-year-olds.

The second research question we asked was how bilingual and monolingual children differed in the linguistic forms they used for introducing characters in L1-Turkish. We ran multinomial regression analyses to answer this question. The results indicated that for all characters, boy, dog and frog, there was no significant effect of age. However, there was an effect of language group on comparison of indefinite nominal and pronoun drop. While bilinguals used pronoun drop almost as much as indefinite nominal, monolinguals used *indefinite nominal* more than pronoun drop. This indicates that when introducing boy, the main character, monolinguals were better than bilinguals at choosing the correct form indefinite nominal instead of pronoun drop. Boy is the main character in the story, and using pronoun drops is less appropriate than using indefinite nominals, specifically for introduction. This may be related to the fact that bilingual children were more accustomed to telling and listening to stories in L2-English, therefore immersion exposure to L2 might have affected their overall L1 narrative competence, which may in turn affect their character referencing. Indeed, Barnes et al. (2014) found that children's ability to properly introduce characters accounted for the variance in narrative comprehension and narrative quality. For the frog character, bilinguals tended to use as much indefinite nominals as definite nominals, whereas monolinguals used definite nominals more than indefinite nominals. Specifically, bilingual children's tendency to use indefinite nominals when introducing the frog character may be related to learning an articlebearing language early in childhood. This finding is in line with findings from previous studies showing differences between monolinguals and bilinguals who learn languages that encode character references differently (Chen & Lei, 2013; Chen & Pan, 2009; Jia & Paradis, 2015; Topaj, 2010). However, it should also be noted that in those studies, L2 was the dominant language in the society, which may have also added to the effects.

Our final research question was how bilingual children differed in their L1 and L2. For all characters, *boy, dog* and *frog*, bilingual children preferred to use more *definite nominals* in their L1-Turkish narratives compared with L2-English narratives. This finding corroborates the cross-linguistic finding from Aksu-Koç and Nicolopoulou's (2015) study, in which they compared 3-, 4- and 5-year-old monolingual English and monolingual Turkish-speaking children based on character referencing. They found that 5-year-old Turkish-speaking children used more *definite nominals* compared with their English-speaking peers, a cross-linguistic difference which may have also had an influence on our results. Thus, our bilingual children in both age groups used more *definite nominals* in their L1-Turkish narratives. This finding indicates that using definite forms can be a spontaneous strategy for Turkish-speaking children until around 9 years of age

even if they are bilinguals acquiring English at the same time. But still, they used fewer definite forms in their L2-English narratives, suggesting that they are sensitive to linguistic rules and common usage of forms in the respective languages.

Our primary goal in the present study was to understand whether learning an article-bearing L2 has an effect on L1 character referencing. Although children of the present study were younger than the age when appropriate character referencing is accomplished (i.e. around 9 years of age), the results indicate that even before character referencing is successfully accomplished, there may be reflections of L2 influences on L1.

In conclusion, our results indicate that from very early on, children can be tuned to different referential needs of the learned languages while maintaining sensitivity towards requirements of their L1. The present study has some limitations such that all data were gathered in high-SES contexts, which limits the generalizability of the results. Another limitation could be that bilingual children narrated the story in L2 after they had already told in L1. This may have affected how much detail they incorporated in the story when they were telling it the second time. In future studies, it is important to continue to examine how different amounts of exposure to languages can influence the use of referential expressions, particularly in older age groups, and whether situational factors such as story complexity have an impact on the use of referents in different narrative contexts.

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#### **ORCID iDs**

Aslı Aktan-Erciyes https://orcid.org/0000-0002-6531-6140
Betül Firdevs Zengin https://orcid.org/0000-0002-6487-4319

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