



Age and Input Effect in Simultaneous Bilingual: Turkish and Italian

Andaç İkidillikte Yaş ve Girdi Etkisi: Türkçe ve İtalyanca

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ABSTRACT: This study reports on acceptability judgment (AJ) and translation data from 10 simultaneous Turkish-Italian bilinguals with age-matched Turkish and Italian monolinguals as control group. The linguistic property investigated is postverbal subjects occurring with unaccusative verbs. The results of the AJ task in Turkish revealed significant difference between groups. However, in the Italian AJ task, significant variability was found in younger bilinguals. Only bilinguals participated in the translation task. In translation into Turkish, always pragmatically appropriate sentences were produced. When translating into Italian significant variability was found in younger bilinguals and those enrolled in Turkish schools.

Keywords: Bilingualism, children, crosslinguistic interference ,Interfaces, Italian-Turkish

ÖZ: Bu çalışma andaç iki dilli Türk ve İtalyan ve kontrol grubu olarak aynı yaştaki tek dilli Türk ve İtalyan çocuklardan elde edilmiş dilbilgisel yargı testi ve çeviri verilerini incelemektedir. İncelenen dilsel özellik, geçişsiz fiillerde bulunan eylem-sonu öznelerdir. Türkçedeki dilbilgisel yargı testi sonuçları gruplar arasında belirli bir fark ortaya koymaktadır. Bununla beraber, İtalyanca dilbilgisel yargı testi sonuçlarında istatistiksel olarak anlamlı değişkenlik, daha küçük iki dilli çocuklarda gözlemlenmektedir. Çeviri testine yalnızca iki dilli çocuklar katılmıştır. Türkçeye yapılan çeviride her zaman edimsel uygunluk gösteren cümleler üretilirken İtalyancaya yapılan çevirilerde istatistiksel olarak anlamlı değişken daha küçük iki dilli çocuklarda ve Türkçe eğitim yapan okullara kayıtlı olan çocuklarda bulunmuştur.

Anahtar sözcükler: İki dillilik, çocuklar, farklı dillerin birbirine etkisi, arayüzler, İtalyanca, Türkçe

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Introduction

It has been suggested that crosslinguistic influence is relevant even in simultaneous bilinguals (2L1), acquiring two languages that differ with respect to a particular parameter. Following Platzak's (1999) proposal that C (complementizer) domain, where syntax interacts with other domains, is the locus of potential interferences in many different cases of language acquisition, Hulk & Müller (2000) and Müller & Hulk (2001) proposed that crosslinguistic influence occurs at the interface level between syntax and discourse, when the syntactical structures of the two languages of a bilingual partially overlap. They specifically proposed two conditions for interference to take place: a) the structure taken into account belongs to the syntax/pragmatic interface, b) the syntactic construction in language A permits for more than one syntactic analysis, and language B provides evidence for only one of the two analyses. Those studies investigated simultaneous acquisition of language pairs that were displaying parametric differences as in the case of German-Italian, French-Dutch but recent studies (e.g., Sorace & Serratrice, 2009; Sorace et al. 2009; Serratrice et al. 2012) have found crosslinguistic interference also in contexts, which involves two typologically similar languages. For example, in a study examining the production of overt and null pronouns in English-Italian and Spanish-Italian bilinguals, Sorace et al. (2009) found that not only English-Italian, but also Spanish-Italian bilinguals preferred overt pronouns even where null pronouns would have been a more felicitous choice. In this case, condition b—proposed as necessary by Hulk & Müller (2000) and Müller & Hulk (2001) for interference to take place—is not respected, suggesting that the constructions at syntax-pragmatic interface are also problematic, when the syntactic construction in both the languages provides evidence for the same syntactic analysis.

1. The Interface Hypothesis

The ongoing research on bilingualism indicates that the structures at the interface, when syntax encounters other cognitive systems, are the most problematic to acquire and master (e.g., Hulk & Müller, 2000; Müller & Hulk, 2001; Sorace et al. 2004). An early version of the I(nterface) H(ypothesis) was introduced by Sorace (2003), who suggested that structures at the interface maybe more vulnerable in acquisition and language loss than the structures that have only internal interface. Jackendoff's distinction (Jackendoff, 2006) individuates three different generative motors for language (syntax, semantic, and phonology). Tsimpli et al. (2006) developed a later version of IH based on Jackendoff, 2006 that distinguishes between internal and external interfaces. Internal interfaces are those between internal generative motors (as syntax and semantic), the external interfaces lie between syntax and other cognitive domains (as syntax-discourse). In this context, only the latter one is considered vulnerable to language acquisition.

Many of the studies focusing on syntax-discourse interface have proposed that underspecification and cross-linguistic influence can account for these difficulties (Lozano, 2006; Tsimpli, 2007; Tsimpli et al. 2004); researching on the acquisition or attrition in bilinguals, in whom, the two languages differ under parametric choice. The proposal in these studies was that if a language has a particular interface condition that is specified in L2, it

remains underspecified when this condition is absent in L1. This proposal is true only for the language combinations, wherein one has a more complex syntax-pragmatic interface condition than the other. However, other studies analyzing language combinations with similar interface conditions observed resembling difficulties in acquiring discourse constrains (Bini, 1993; Margaza and Bel, 2006; Roberts, Gullberg, and Indrey, 2008, Sorace et al., 2009).

All aforementioned studies confirm the hypothesis that structures at the syntax-pragmatic interface are more vulnerable, but cross-linguistic influence and underspecification do not seem to be a good enough explanation for these difficulties. Therefore, we have to take into account other possible factors to explain this interface optionality in bilinguals. One factor could be found in the processing load of a bilingual in the mastery of those features that need online integration of different domains. Bilingual speakers have to inhibit continuously one language in favor of the other, this process may have a cost, i.e., they may be less efficient in integrating diverse information as it is required at the syntax-pragmatic interface, as suggested by Wilson, Sorace and Keller (2009), in a study on the acquisition of anaphoric dependencies of pronouns and demonstratives in German L2. Another factor that may add difficulties to the structures at the interface is the quality and quantity of input. The bilinguals receive inputs that are different in quantity and in quality according to monolinguals (Sorace, 2005, Tsimpli and Sorace, 2004, Sorace and Serratrice, 2009).

2. Postverbal subject in null subject languages

The possibility of producing a postverbal subject is considered one of the characteristics of pro-drop languages (Rizzi 1982, Jaeggli & Safir 1989) like Turkish and Italian, but recent studies have enlightened that the distribution of an overt subject is regulated by the discourse factors that are different for Turkish and Italian. In Italian, with transitive/unergative structures, the subjects in a preverbal position are interpreted as discourse topics, (a) while postverbal subjects introduce a new unfamiliar information as the discourse focus (b), (Belletti 2001, 2004, Domínguez 2004, Zobl and Liceras 1994, Lozano 2006a).

- (a) Anche Marco ha partecipato alla gara
 Also Marco-SBJ take part- PST-3RD in the race
 ‘Marco too took place in the race’
- (b) Ha partecipato anche Marco alla gara
 take part- PST-3RD also Marco-SBJ in the race
 ‘Marco too took place in the race’

Postverbal position is considered the neutral position for the subject in unaccusative/ergative structures like (c), wherein the subject “nave”, ship is interpreted as the topic and could be an answer to a generic question like “what happened?”.

- (c): È affondata una nave
 sink-PST-3RD a ship-SB
 ‘A ship sank’

In Turkish, the natural word order is Subject Object Verb (SOV) (Underhill 1972, Erguvanlı 1984, Kornfilt 1984) (d):

(d) Maria gel-di
 Maria-SOQG. venire-PASS.3P.SG
 Maria è venuta

Similar to other prodrop languages, in Turkish, an overt subject can also be produced in postverbal position like (e)

(e) gel-di Maria
 came-PASS.3P.SG Maria-SOQG.
 Maria came

but unlike Italian, it is permitted only by the discourse requirement and is not affected by the semantics of verb (+/- accusative). Following Erguvanlı's description (1984), an appropriate overt subject in postverbal position is generated when it recalls the information that is shared by both the speakers; consider the following examples (f)

(f) Kim gel-di
 who-Sbj. came-PASSt.3P.SG
 who did come?
 Maria gel-di
 Maria-subj came-PASSt.3P.SG
 Maria came
 * gel-di Maria
 came-PASSt.3P.SG Maria-subj
 came Maria

The question in (e) needs an answer with the focus on the subject "Maria", in this case to produce the subject at the postverbal position is inappropriate, as this is the position for background information. If we consider (f), it can be seen that both the speakers share the same information about the ship, that they evoke by the previously given discourse.

(f) A: O gemiye ne oldu?
 That ship-DAT what happen-PST-3RD?
 B: Battı o gemi.
 sink-PST-3RD that ship-SBJ
 'That ship sank'

Following this line of reasoning, we see that unlike Italian, in Turkish the most appropriate answer for general focus question "what happened" is a construct with the subject in the beginning of a sentence (g)

Ne oldu?
 what happen-PST-3RD?
 *duştı bardak.
 fall-PST-3RD glass-SBJ
 'a glass fell'
 bardak duştı

*bardak duřtu.
glass-SBJ fall-PST-3RD
'a glass fell'

3. The current study

This study is based on the assumption that interface structures are difficult to master for bilinguals, not only due to cross-linguistic influence but also due to the factors related to bilingualism itself (Sorace and Serratrice, 2009; Sorace et al. 2009; Serratrice et al. 2012).

The objectives of this study are

- a. to established how Italian-Turkish L1 bilingual children produce and understand postponed subjects in both languages;
- b. if the understanding and production of postverbal subject is influenced by the amount and quality of input received;
- c. if there is a direction in cross-linguistic influence;
- d. if there are processing effects on the comprehension and production of postverbal subjects.

This study was conducted on ten elementary school age children, bilingual from birth, using both the languages on daily basis and being very fluent in both; four of them were attending a Turkish curriculum private school and six were in the Italian Consular School. All of them were dwelling in Istanbul. As a control, monolinguals matched for age and socioeconomical status were also recruited. The prediction, based on previous studies (Bini,1993; Sorace and Serratrice, 2009), is that the comprehension and production of postverbal subjects by bilinguals is significantly different from that of monolinguals, and that quantity of input and the simultaneous processing of two languages play a major role in bilinguals' language production. To meet these four objectives, a language background questionnaire, an acceptability judgment task, and a translation task, were employed.

3.1 Methodology

Participants

A total of 30 children participated in this study: ten Italian-Turkish children (average age 9.5 years) simultaneously bilinguals, ten Italian monolinguals (average age 9.6 years), and ten Turkish monolinguals, average age (average age 9.6; the range for all groups was 7–12 years).

All children were recruited through personal contacts. All bilingual ones were living in Istanbul, Turkey. While monolinguals were enrolled from different parts of Italy and Turkey. The monolinguals were not having any significant competence in any second language or experience of living abroad.

3.2 Procedure

Data were collected through a linguistic background questionnaire, an acceptability judgment task, and a translation task. Two versions of the task were used, one in Italian and one in Turkish. The linguistic background questionnaire was given to be filled a few days before the first set of tests. Stimuli were presented by means of a PowerPoint presentation with random slides. The test section was explained by an explicatory section in the target language. Bilingual children had two sections, one for Italian and one for Turkish, with a one-week interval. The researchers communicated with the children in the language to be analyzed during that specific session. Translation task was administered only to the bilingual children.

3.3 Materials

3.3.a Acceptability judgment test

The acceptability judgment test consisted of 16 experimental items with unaccusative verbs and four fillers. Each item was presented as a 20-second animation showing two characters presented by the off field voice as Giulia and Luca. Each movie illustrated a situation, then the off field voice asked, “what has happened?” to elicit a wide focus sentence (Pinto, 1997), one character then answered with a subject verb sentence and the other with a verb sentence. The subjects were then invited by the off field voice to tell which one of the characters was saying the “better” sentence (both the sentences were syntactically correct but one of them was not pragmatically appropriated). The items were designed in such a way that in the experimental items, the most pragmatically appropriate sentence was verb subject, while with filler (accusative verbs), the appropriate sentence was subject verb.

Experimental item (Italian):

Off-field voice: Che cosa é successo?

What has happened?

Luca: E' arrivata Maria

Came Maria

Giulia: *Maria é arrivata

Maria came

Off-field voice: Chi lo dice meglio? Luca? o Giulia?

Who says it better?

Turkish:

In the Turkish version of the tests, the material was presented in the same way used for Italian. The sentences in (a) and (b) exemplify the kind of the sentences included. Owing to the context presented in the animated movie, the sentence like (a) is always to be considered infelicitous in Turkish.

Experimental item(Turkish):

Ne oldu?

What has happened?

Can: *geldi Ayşe

Came Ayşe

Zeynep: Ayşe Geldi

Maria came

Kim daha güzel söyledi?

Who says it better?

Can mı? o Zeynep mi?

3.3.b Translation task

Translation task is usually not employed when investigating children bilingualism, though it was in the scope of this research.

Malakoff and Hakuta (1991) pointed out that an appropriate translation requires the ability of reformulating a message from source language to target language, and this requires the application of appropriate metalinguistic skills. Metalinguistic competence (Bialystok, 1991, 2001) can be defined as the explicit knowledge of the structure of a language and the ability of a proper control on the process to access the structure in language use. Bialystok (2007) furthermore puts forward the hypothesis that early bilingualism results in a more efficient executive control. For this reason, it seems a good choice to include a translation task in which a participant has to integrate information from different sources (visual and auditory) and to give an appropriate answer (translating of the sentence). Such a task gives an opportunity to check if bilingual children rely more on the word order of the sentence they hear or they can produce pragmatically appropriate sentences relaying on the situation proposed in the movie.

The task consisted of ten 10-second animation movies, eight were experimental items and two were fillers.

Italian

In the animation, there were a small boy and an old lady. The participants were told that the boy in the animation was their cousin, visiting them in their Turkish grandmother's home, the cousin could speak only Italian and grandmother only Turkish, so the participants have to translate for the grandmother what the cousin said. This format was chosen as it was a real life situation, as the participants often function as translators for visiting family members and relatives, those do not speak other language.

Experimental item: In the animation a dog arrives and the boy is very happy

Cousin: E' venuto il cane!

Arrived the dog

Turkish grandmother: ne dedi?

What did he said?

Translation task (Turkish)

In the Turkish experiment children were presented with the same situation, but this time participants were in Italy and they had to translate for the Turkish cousin hosted by her/his family in Italy

Experimental item: In the animation a dog arrives and the boy is very happy

Cousin: köpek geldi!

Arrived the dog

Italian grandmother: cosa ha detto?

What did he say?

4. Results

Subject position preferences in Acceptability Judgment test (Italian)

The data were first analyzed conducting a t-test with the language background (bilingual, monolingual) as an independent variable and the items' mean percentage of postponed subject as a dependent variable. Overall there was no significant effect, but in a more fine-grained analysis, the two items, arrivare and cadere, showed a statistically significant effect ($t(18)=2.46, p=.024$; $t(18)=2.49, p=.025$).

The results for the bilingual participants were divided into different groups according to the age (<9 and >9) and the school attended (Turkish private school or Italian School of Istanbul). MANOVA was conducted taking age, school curriculum and language background as independent variables and items' means as dependent variables. The statistical significance was assessed for children age $F(9.7) p<.0005$, Wilk's $\Lambda=.040$ partial $\eta^2=.96$.

Subject position preferences in translation test (Italian)

A correlation was found between the stimuli (position of the subject) and the average of the postverbal subject produced by the participants divided in the groups by age (<9 and >9) and by the school attended (Turkish private school or Italian School of Istanbul). The correlation was obtained for age (<9) $r=.705, n=50, p=.023$ and Turkish schools ($r=.759, n=10, p=.011$)

Subject position preferences in Acceptability Judgment test (Turkish)

The bilingual and monolingual participants showed a constant preference for the preverbal subject in Turkish, which was more felicitous choice as the situation showed in the 20 animations was exactly suggestive for this kind of choice.

Subject position preferences in translation test (Turkish)

In the 10-second animation in Italian, the depicted situation always offered a condition for the subject to be preverbal, but four stimuli were preverbal and four were postverbal. Despite the stimuli, the bilingual children always produced pragmatically felicitous sentences, showing no sign of sensitivity regarding the spoken stimuli (Table 1).

5. Discussion

The results of these experiments provide some evidence that study group children produce and understand postponed subject in a different way from monolingual children only in Italian. In the acceptability judgment test, we see that the difference in the performance is restricted to a certain age group and does not depend on the school attended by the participant; thus, it can be proposed that age, more than quality of stimuli, plays a crucial role in the mastery of structure at the interface. The translation task does confirm that age is an essential condition but we find evidence to affirm that input also plays a role. In the translation task, younger children and those enrolled in Turkish curriculum school relied more on the word order of the stimuli in Turkish rather than the pragmatic situation presented in the animation. In Turkish, bilingual children always judge and produce appropriated sentences as if the cross-linguistic influence was mono-directional only for Italian. It has to be recalled that in Turkish the subject appears in the postverbal position only in limited situations, which were not tested in the items offered. The younger children, especially bilinguals, may not yet have had collected enough evidence to put the subject in a postverbal position. It is relevant to infer these results in the light of the hypothesis that the interaction between language and other cognitive systems may affect executive functions as proposed by Sorace, (Sorace, 2016) and that this effect may be extended in the way that younger bilinguals process overt subjects in more complex conditions.

References

- Argyri, E., & Sorace, A. (2007). Crosslinguistic influence and language dominance in older bilingual children. *Bilingualism: Language and Cognition*, 77-99.
- Bialystok, E. (2007). Cognitive effects of bilingualism: How linguistic experience leads to cognitive change. *The International Journal of Bilingual Education and Bilingualism* 10(3), 210-223
- Bialystok, E. (1991). Metalinguistic dimensions of bilingual language proficiency. In E. Bialystok (Ed.), *Language processing in bilingual children*. pp.113–140. Cambridge: Cambridge University Press
- Bialystok, E. (2001). *Bilingualism in development: Language Literacy and Cognition*. New York: Cambridge University Press.
- Belletti, A. (2001). *Inversion as focalization. Subject Inversion in Romance and the Theory of Universal Grammar*, pp. 60–90.
- Belletti, A. (2004) Aspects of the low IP area. In L. Rizzi (Ed.), *The structure of CP and IP. The Cartography of Syntactic Structures, Volume 2* (pp. 16–51). New York: Oxford University Press.
- Bini M. (1993). La adquisición del italiano: más allá de las propiedades sintácticas del parámetro pro-drop. In J.M Licerias (Ed), *La lingüística y el análisis de los sistemas no nativos*, pp. 126–139. Ottawa: Dovehouse.
- Domínguez, L. (2013). Understanding Interfaces: Second language acquisition and first language attrition of Spanish subject realization and word order variation. Amsterdam: John Benjamins.
- Erguvanli, E. (1984). *The Function of Word Order in Turkish Grammar*. Berkeley: University of California Press.
- Hulk, A. & Müller, N. (2000). Bilingual first language acquisition at the interface between syntax and pragmatics. *Bilingualism: Language and Cognition*, 3(3), 227-244.
- Isever, S. 2003. Information structure in Turkish: the word order-prosody interface. *Lingua* 113: 1025-1053.
- Jackendoff, R. (2007). A Parallel Architecture perspective on language processing. *Brain Research*, 1146, 2-22.
- Jaeggli, O., & Safir, K (1989): The Null Subject Parameter and Parametric Theory. In: O. Jaeggli & K. Safir, eds., *The Null Subject Parameter*. Kluwer, Dordrecht.
- Kornfilt, J. (1984). Case Marking, Agreement and Empty Categories in Turkish. Ph.D. Dissertation, Harvard University.
- Lozano, C. (2006a). The development of the syntax-discourse interface: Greek learners of Spanish. In V. Torrens & L. Escobar (eds.), *The acquisition of syntax in Romance languages*, pp. 371-399. Amsterdam: John Benjamins.
- Lozano, C. (2006b). Focus and split intransitivity: the acquisition of word order alternations in non-native Spanish. *Second Language Research*, 22, 1–43.

- Margaza, P., & Bel, A. (2006). Null Subjects at the Syntax-Pragmatics Interface: Evidence from Spanish Interlanguage of Greek Speakers. In M. Graham O'Brien, C. Shea, & J. Archibald (Eds.), *Proceedings of the 8th Generative Approaches to Second Language Acquisition Conference (GASLA 2006)* (pp. 88-97). Somerville, MA: Cascadilla Proceedings Project.
- Malakoff, M. & K. Hakuta. (1991). Translation skill and metalinguistic awareness in bilinguals. In E. Bialystok (ed.), *Language processing in bilingual children*, 141-166. Cambridge: Cambridge University Press
- Muller, N. & Hulk, A. (2001) Crosslinguistic influence in bilingual language acquisition: Italian and French as a recipient languages. *Bilingualism: Language and Cognition*, 4, 1-21.
- Platzak, C. (1999). Multiple interfaces. In U. Nikanne & E. van der Zee (Eds.), *Conceptual structure and its interfaces with other modules of representation*. New York: Oxford University Press.
- Pinto, M. (1997). *Licensing and Interpretation of Inverted Subjects in Italian*. Utrecht: Utrechts Instituut voor Linguïstiek .
- Rizzi, L. (1982). *Issues in Italian syntax*. Dordrecht: Foris.
- Roberts, L., Gullberg, M., & Indefrey, P. (2008). Online Pronoun Resolution In L2 Discourse: L1 Influence and General Learner Effects. *Studies in Second Language Acquisition*, 30(03), 333-357.
- Tsimpli, I. (2007). First language attrition from a minimalist perspective: Interface vulnerability and processing effects. In B. Köpcke, M. Schmid, M. Keijzer & S. Dostert (Hgg.) (2007). *Language attrition: Theoretical perspectives*. Amsterdam: John Benjamins. 83-98.
- Serratrice, L., A. Sorace, & S. Paoli. (2004). Subjects and objects in Italian English bilingual and monolingual acquisition. *Bilingualism: Language and Cognition*, 7, 183-206.
- Serratrice, L., Sorace, A., Filiaci, F. and Baldo, M. (2009). Bilingual children's sensitivity to specificity and genericity: evidence from metalinguistic awareness. *Bilingualism: Language and Cognition* 12: 239-267.
- Serratrice, L., Sorace, A., Filiaci, F., & Baldo, M. (2012). Pronominal objects in English–Italian and Spanish–Italian bilingual children', *Applied Psycholinguistics*, 33(4), pp. 725–751
- Sorace, A. (2003). Near-nativeness. In M. Long and C. Doughty (eds.), *Handbook of Second Language Acquisition*, 130-152. Oxford: Blackwell.
- Sorace, A. (2005) Selective optionality in language development. In Cornips, L. and Corrigan, K., editors, *Biolinguistic and sociolinguistic accounts of syntactic variation*. Amsterdam: John Benjamins, 55–80.
- Sorace, A., & Serratrice, L. (2009). Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism*, 13, 195-210.
- Sorace, A., Serratrice, L. Filiaci, F. and Baldo, M. 2009. Discourse conditions on subject pronoun realization: testing the linguistic intuitions of older bilingual children. *Lingua*, 119, 460-477.
- Sorace, A. 2016. Referring expressions and executive functions in bilingualism. *Linguistic Approaches to Bilingualism*. doi:10.1075/lab.15055.sor

- Tsimpli, I., A. Sorace, C. Heycock & F. Filaci (2004). First language attrition and syntactic subjects: a study of Greek and Italian near- native speakers of English. *International Journal of Bilingualism* 8. 157-177.
- Tsimpli, T. Sorace, A., Heycock, C. , & Filiaci, F.(2004). First language attrition and syntactic subjects: a study of Greek and Italian near-native speakers of English. *International Journal of Bilingualism* 8: 257-277.
- Underhill, R. (1972). 'Turkish participles.' *Linguistic Inquiry* 3, MIT Press, Cambridge, pp. 87-99
- Zobl, H., and Liceras, J. (1994). Functional categories and acquisition orders. *Language Learning*, 44, 159–180
- Wilson, F., Sorace, A., & Keller, F. (2009). Antecedent preferences for anaphoric demonstratives in L2 German. In J. Chandlee, M. Franchini, S. Lord, & G-M. Rheiner (Eds.), *Proceedings of the 33rd Annual Boston University Conference on Language Development*. pp.634–645. Somerville, MA: Cascadilla Press.