Specific patterns of referential use in Mandarin-Italian bilingual children

Nicola Perugini

University of Bologna, Italy

In a recent study on Mandarin-English bilingual children, Zhou et al. (2022) identified two specific patterns in Mandarin productions: the overuse of demonstrative NPs in referent reintroductions among bilinguals compared to monolinguals and the preference for preverbal order when introducing new referents. The present study explores the narrative productions of ten Mandarin-Italian bilingual children (ages 4–8), elicited in both languages using MAIN. In order to determine whether the two patterns identified by Zhou et al. (2022) are also observed in the bilingual group of the present study, comparisons with an Italian monolingual group as well as with Mandarin monolinguals are drawn. The results indicate that, like in Zhou et al. (2022), when reintroducing referents, the Mandarin-Italian bilingual children produce more demonstrative NPs than their monolingual peers in both languages. As for referent introductions, when using existential constructions, Mandarin-Italian bilingual children prefer postverbal NPs. However, with motion and position verbs, which also require VS order in both languages, they exclusively produce preverbal NPs. Both patterns are regarded as typical bilingual strategies to reduce cognitive load during the processing of complex structures.

1 Introduction

The acquisition of referential expressions, such as definite and indefinite noun phrases (NPs), personal pronouns, and demonstrative NPs, is a late-acquired phenomenon in both monolingual and bilingual children (Salazar Orvig, 2019). The late mastery of referential forms, especially in extended discourse such as narratives, has been documented across several studies, with errors in referential use observed up to the age of ten, but with substantial variation across languages (Hickmann et al., 2015). The production of appropriate referential expressions depends on various interrelated factors, including the development of morphosyntactic skills in the target language, sensitivity to language-independent pragmatic principles (Rozendaal, 2008), and the development of executive functions, particularly perspective-taking (De Cat, 2015). As for bilingual children, the literature provides mixed results: some research has shown differences with monolingual peers in the use of referential expressions (Torregrossa & Bongartz, 2018; Torregrossa et al.,2021), while in others no difference has emerged (Andreou

et al., 2015; Lindgren et al., 2022; Topaj, 2010). Several factors have been considered to explain the referential behavior of bilinguals, such as language input (Torregrossa et al., 2021) and language combination, especially when the referential systems of the two languages are very different from each other (Lindgren & Bohnacker, in press). However, there are also studies that show no effect of linguistic experience (Lindgren et al., 2022), nor of the language pair on the referential behavior of bilingual children (see Torregrossa & Bongartz, 2018).

Research on referential expressions in narrative production usually examines these expressions in relation to three discourse functions: the *introduction* of a referent for the first time, the *maintenance* of reference to a character already mentioned in the immediately preceding discourse and still in focus, or the *reintroduction* of a referent after an intervening shift in focus to another referent (Hickmann et al., 2015). The referent is new in the first case, while should be marked as given in the second and third cases.

To signal whether a referent is new or already known within a discourse, all languages use strategies that distinguish between entities with varying degrees of accessibility. These mechanisms generally fall into two categories: local markings, which apply directly to the noun phrase, and global markings, which affect the entire clause. However, languages vary in how they employ these strategies. In some languages, local markings are obligatory, while global ones are optional, and in others, the opposite is true (Hickmann, 2003, p. 59). Word order frequently contributes to the marking of newness/givenness following two common principles found across many languages: given information is often positioned at the beginning of a sentence, whereas new information typically appears at the end, known as the *given-first* and *new-last* principles, respectively. Additionally, in some languages, subject-verb inversion allows speakers to position noun phrases introducing new subjects after the verb instead of at the start of the sentence (Hickmann, 2003, p. 62). Children must learn to use both local and global encoding strategies, gradually mapping forms to functions and developing sensitivity to the syntactic, semantic, and discourse-pragmatic constraints specific to the target language. This process is especially complex when two target languages are involved, as in bilinguals, and even more demanding when the two referential systems are very different from each other.

In a recent study, Zhou et al. (2022) examined referential production in Mandarin-English bilingual children (aged 4-6 years) growing up in Singapore and identified two specific patterns in the bilinguals' use of referring expressions in Mandarin, one at the level of local markings and one at the level of global markings: a higher use of demonstrative NPs by bilinguals compared to their monolingual peers, and the preference by bilingual children for the preverbal position when introducing new referents. In the present study, the use of referring expressions in narratives by 10 Mandarin-Italian bilingual children aged 4 to 8 is analyzed, to determine whether the same two specific patterns identified by Zhou et al. (2022) are observed when the language in contact with Mandarin is Italian. The study also included 11 age-matched monolingual Italian children as a control group.

The paper is structured as follows: Section 2 provides an overview of the local and global markings for information structure in Italian and Mandarin and reviews the literature related to the two specific patterns identified by Zhou et al. (2022) in Mandarin-English bilingual

children. Section 3 describes the present study, while Sections 4 and 5 are dedicated to presenting the results and discussing the findings, respectively.

2 Literature review

2.1 Local and global markings of givenness in Italian and Mandarin

This section provides a brief overview of the main features of Italian and Mandarin Chinese regarding the use of local and global strategies to mark the information status of a referent. Italian and Mandarin differ in their reliance on local versus global markers for indicating the information status of a referent. Specifically, determiners are grammatically required in Italian, while, they are optional in Mandarin, that mainly relies on word order to indicate distinctions in newness or givenness.

As for local marking strategies, both languages use an indefinite determiner whose form is similar to the numeral for one to mark the introduction of a new referent. In Italian, the indefinite article is the preferred encoding tool for newness, regardless of the position of the indefinite NP in the clause. In Mandarin the numeral *yi* is still in the process of grammaticalization but is increasingly taking on many functions typical of an indefinite article (Chen, 2004). In referent reintroduction, where the referent needs to be marked as given and identifiable to the listener, the tools available in the two languages are only partially shared. The most notable difference is that Italian primarily relies on the use of a definite article, an element that is absent in Mandarin. Another local marking device, common to both languages and of particular interest here, is the demonstrative determiner,[1] though its use and frequency vary between Italian and Mandarin. In Mandarin, a demonstrative may lose its deictic meaning in certain contexts (Chen, 2004), instead functioning as a determiner akin to the definite article in languages such as Italian, English, or Spanish (Gundel et al., 1993). Gundel et al. (1993, pp. 284–285) classify Mandarin demonstrative NPs as the linguistic forms that in Mandarin correlate most strongly with the cognitive state of "uniquely identifiable", which in English and Italian corresponds to definite NPs. In (1a) and (1b), Mandarin and Italian translations of the sentence *The dog next door was barking* are given (with the relevant element in bold). It can be observed that the Mandarin demonstrative *nèi* corresponds to the definite article in both the English (*the*) and the Italian (*il*) sentences.

(1a) *Gébi-de* ***nèi*** *tiáo gòu jiáo de lìhai.*
next-door that CL dog bark ADV extremely.
'**The** dog next door was barking.'
(Gundel et al., 1993, p. 285)

(1b) ***Il*** *cane d-el vicin-o stava abbaiando.*
the.M.SG dog of-the.M.SG neighbour-M.SG was barking.
'**The** dog next door was barking.'

[1] It should be specified that both languages can convey the identifiability of the referent through a series of nominal expressions whose identifiability can be inferred by the listener: kinship terms, noun phrases with a possessive (which in Italian still require a definite article), noun phrases with an adjectival modifier, or relative clauses.

Following Chen (2004), it should be added that Mandarin demonstratives are akin to the definite article in English or Italian in certain contexts, such as noncontrastive anaphoric reference and restrictive relative clauses. Otherwise, the preferred means of conveying identifiability and givenness in Mandarin are bare nominals in preverbal position (Chen, 2004).

Regarding global markings, both Italian and Mandarin use the noun phrase's position relative to the verb to indicate distinctions in newness or givenness. In Mandarin, the preverbal position is typically reserved for identifiable, given referents, while postverbal position signals new referents (Chen, 2004) (see 2a and 2b). Thus, introductions frequently appear postverbally, sometimes marked locally with a numeral (e.g., using the [*yi* + classifier + NP] structure). VS (Verb-Subject) structure, a common presentative strategy, is used to place new referents in postverbal position, but this is restricted to certain position (e.g., sit), and motion verbs (e.g., come, arrive). Italian also employs global encoding structures, such as the VS structure shared with Mandarin (see 3), to mark the newness of referents (Sparvoli, 2017). Although not obligatory, this structure is preferred for new referents and is triggered by factors similar to those in Mandarin, such as verb semantics (especially unaccusative verbs, such as those expressing motion or position), the referent's topicality (the VS order is more frequent with new or non-topical subjects), and text type (the VS order appears more frequently in spoken than in written language) (Andorno, 2012). Both Italian and Mandarin employ existential constructions (see 4 and 5). These structures function as specific presentative structures that languages commonly use to mark newness (Hickmann, 2003). Existentials follow the same principle as inversions, where new information appears postverbally, but have distinct features, such as particular verbs (*essere* 'to be' in Italian and *you* 'to have' in Mandarin), usually within easily identifiable constructions (Hickmann, 2003). It is noteworthy that the Italian's typical existential construction, [*c'è* + NP] is also used for reference maintenance (especially when a referent is reintroduced after not being at the center of discourse for a while). In that case, the NP includes a definite determiner (see 6).

(2a) rén lái le
person come PFV
the persons have come
(Li & Thompson, 1981)

(2b) lái le rén le
come PFV person PERF
some persons have come
(Li & Thompson, 1981)

(3) Arriv-a un-a volpe
Come-3.SG a-F.SG fox
A fox comes

(4) yǒu yī zhī gôu
have one CL dog
There is a dog.

(5) C'è un-a volpe
There is a-F.SG fox
There is a fox

(6) C' è la volpe
There is the.F.SG fox
The fox is there

In both languages, postverbal position can also be achieved through less specialized means, particularly when a new entity is introduced in relation to another previously mentioned referent

(Hickmann, 2003). Thus, in both Italian and Mandarin, a referent may be introduced as an object noun phrase within a canonical SVO structure. Table 1 summarizes the main coding strategies for marking givenness in the two languages under study, focusing specifically on the introduction and reintroduction of referents through lexical NPs.

Table 1. Givenness and newness markings in Mandarin and Italian

Given/new	Linguistic Form	Position	Mandarin	Italian
NEW	Bare noun	postverbal	+	-
	Indef.NP	postverbal	+	+
	Indef. NP	preverbal	-	+
	Numeral	postverbal	+	+
	Numeral	preverbal	-	+
GIVEN	Bare nouns	preverbal	+	-
	Def. NP	preverbal	-	+
	Def. NP	postverbal	-	+
	Demonstratives NP	Pre/postverbal	+	+
	Numeral	preverbal	+	-
	Def.det + numeral	Pre/postverbal	-	+

2.2 Specific patterns of referential use by Mandarin-speaking bilingual children

As noted in section 1, a recent study by Zhou et al. (2022), which serves as the basis for this study, identified two specific patterns in Mandarin referring expressions use within narratives of Mandarin-English bilingual children born and raised in Singapore: the overuse of demonstrative NPs when reintroducing referents and a preference for preverbal position in referent introduction. These findings align with previous studies on both Mandarin and other languages (Aalberse et al., 2017; Chen et al., 2020; Mai et al., 2021; Narasimhan & Dimroth, 2008; Polinsky, 2006). Zhou et al. (2022) studied bilingual preschool children who speak Mandarin Chinese and English in Singapore, a multilingual society where both English and Mandarin are widely spoken. The children in the study grew up in Singapore, and according to parental observations, 42.9% of the children were balanced between the two languages, 38.1% had greater proficiency in English than Mandarin, while 19% had greater proficiency in Mandarin than English. When assessed by using standardized proficiency tests in both languages (see Zhou et al., 2022 for more details in this regard), bilingual children were generally more advanced in English than in Mandarin.

Regarding the first pattern (the overuse of demonstrative NPs in referent reintroduction), Zhou et al. (2022, p.17) found that Mandarin-English bilingual children displayed a high frequency of demonstrative NPs, particularly a construction with the distal demonstrative [*na* + classifier *ge* + noun] to overtly signal referent definiteness, where a bare noun would be more appropriate (see 2.1). Comparing their results to the findings of the study of Sah (2018), which involved typically developing monolingual Mandarin-speaking children (aged 6–9 years), Zhou et al. (2022) found that the percentage of demonstrative NPs used by the bilingual children in their study to reintroduce previously mentioned referents was significantly higher than the percentage of demonstrative NPs used by the monolingual peers. Zhou et al. (2022) suggest that the overuse of demonstratives by bilinguals may be explained by hypothesizing that the

Mandarin demonstrative has been reanalyzed as a definite article under the influence of English, where a definite article is obligatory in similar contexts (anaphoric). In their study, such a use of the demonstrative NPs appears only in Mandarin productions and not in English, where the use of *that/this* + NP for the reintroduction function was very rare. The direction of cross-linguistic influence (hereafter CLI) is from English to Mandarin, that is, from the language with a dedicated definiteness marker to one without such a marker. These findings align with similar studies focusing on referent reintroduction, involving the same language pair (Mai et al., 2021) as well as studies examining other language pairs, one of which has definite articles while the other does not. In Aalberse et al. (2017), Dutch-Chinese bilingual speakers (aged 15–27) showed a significantly higher proportion in demonstrative NPs usage; the authors similarly attribute this result to CLI from Dutch to Chinese. The possibility that, when referring to previously mentioned referents, the demonstrative determiner may be reanalyzed as an article in languages lacking dedicated definiteness morphology is also evidenced in studies on Ambon Malay and Dutch (Moro, 2016), as well as on Slavic languages like Russian (Polinsky, 2006) and Polish (Otwinowska et al., 2020) in contact with English. One point worth highlighting is that these studies consider bilinguals in contexts where the article-less language is the home language and the language with articles is the societal language, comparable to the conditions of growth of the children in the present study. By contrast, Zhou et al. (2022) examined children growing up in Singapore, a multilingual society where both languages had similar degrees and contexts of exposure. Another potential explanation advanced by the authors for the demonstrative pattern is the tendency of bilinguals to excessively use linguistic forms to overtly mark definiteness, compared to their monolingual peers, as a strategy likely aimed at avoiding ambiguity and easing processing demands (Sorace et al., 2009).

The second specific pattern observed by Zhou et al. (2022) in the bilinguals' Mandarin productions is the non-adult-like preference for preverbal order when introducing new referents, as Mandarin typically favors a verb-subject (VS) structure to signal newness. Zhou et al. (2022) propose two potential explanations. The first states that children tend to prioritize novelty over accessibility in the initial position of the sentence, thereby structuring utterances according to a new-before-old order. In contrast, adults arrange elements in utterances following the old-before-new order, regardless of the language, guided by the principle of conceptual prominence (see Bock & Irwin, 2004, for a discussion of this point). The preference for the new-before-old order in children has been also found in other studies involving both Mandarin-speaking children and those speaking other languages (Ceja del Toro et al., 2016; Chen & Narasimhan, 2018; Narasimhan & Dimroth, 2008; Semsem & Chen, 2019). Hickmann et al. (1996) analyzed the marking of newness in stories told by monolingual preschool children as well as those aged 7 and 10 across several languages: English, French, German, and Mandarin. In Mandarin, while postverbal forms are required to mark the introduction of a new referent, the authors found that preverbal forms remain common even at age ten. Although children begin using postverbal forms more consistently by the age of seven, preverbal forms still appear frequently in their speech at later stages. This is consistent with Wu et al. (2015), who examined the referential choices in the narratives of monolingual Mandarin-speaking children, focusing on the syntactic positions required for different noun phrases expressing

(in)definite reference. The study involved 160 monolingual Mandarin-speaking children, divided into four age groups (3, 5, 7, and 9 years, 40 per group), along with an adult control group (mean age: 21 years). In their study, Wu et al. (2015) found that the correspondence between syntactic position marking and newness is acquired relatively late by Mandarin monolingual children. Preschool-aged children frequently place bare nouns in preverbal position regardless of whether the referent is new or known. The same pattern was found by Chen et al. (2020), who examined the narrative productions of 24 monolingual Mandarin children aged 4-5 years, comparing them to narratives produced by 25 adults aged 19–32. They found significant differences in word order between the two groups, with adults preferring the old-before-new order, while children disprefer it or show no preference for that order. In a study by Chen and Narasimhan (2018) involving English-speaking children (ages 3;10–5;1) and adults, it was noted that, although children were less likely to utilize the old-before-new word order compared to adults, they did not exhibit a significant preference for the new-before-old order, when introducing new referents. A preference for new-before-old order has also been observed among German-speaking children (Narasimhan & Dimroth, 2008), Spanish-speaking children (Ceja del Toro et al., 2016), and Arabic-speaking children (Semsem & Chen, 2019). However, results from other studies found different results (MacWhinney & Bates 1978; Stephens, 2010). Stephens (2010) suggests that English-speaking children may prefer the old-before-new order, whereas MacWhinney and Bates (1978), in a study involving three groups of monolingual children speaking English, Hungarian and Italian respectively, did not find any correlation between word order and information status for any of the languages considered. From this brief review of the studies, it emerges that research on children's reliance on word order to express the new-given distinction has yielded mixed results so far.

The second possible explanation by Zhou et al. (2022) posits that the preference for preverbal order is a result of cross-linguistic influence from English to Mandarin. Indeed, English primarily employs pitch accent to mark focus (generally the new information), resulting in a more rigid word order (Fanselow, 2014). In contrast, Mandarin relies mainly on constituent order as the primary means to indicate focus, allocating postverbal position for this purpose (Chen et al., 2016). However, in contrast to the findings of Zhou et al. (2022), Jia and Paradis (2015) found that Mandarin-English bilingual children do not differ from Mandarin monolingual peers as for the selection of postverbal position in introducing new referents. Jia and Paradis (2015) studied the linguistic means used for the first mentions of referents in a narrative task by Mandarin-English bilingual children (aged 6;9–10;10), raised in Edmonton, Canada, and with Mandarin as their heritage language. The results of their study show that, bilingual children were able to use postverbal NPs appropriately in the first mentions similar to Mandarin monolinguals. The authors therefore excluded the possibility of CLI on the word order from English to Mandarin, since the use of postverbal NPs is a Mandarin-specific way of introducing referents and for this reason cannot be transferred from the bilingual children's English knowledge. A study by Serratrice (2006) considered a different language combination, namely English and Italian, where Italian, like Mandarin, favors postverbal positioning for NPs introducing new referents. Serratrice (2006) investigated the referential choices of eight-year-old English-Italian bilingual children, comparing them with both Italian-speaking and English-

speaking monolingual peers. The results aligned with the findings of Zhou et al. (2022). For referent introduction, the Italian monolingual children used postverbal subjects at twice the rate of the bilingual children (although the difference between the two groups did not reach statistical significance). This result was interpreted as an effect of CLI from English, which has a more rigid word order and requires preverbal position even in contexts of newness. Investigating bilinguals with Italian and Mandarin as a language pair can be useful in disentangling the issue of the higher frequency of preverbal order in bilingual children's introductions: whether it reflects a preference for a new-before-old order or is the result of CLI.

3 The present study

This exploratory study seeks to examine whether the specific patterns identified by Zhou et al. (2022) in the Mandarin narrative productions of bilingual Mandarin-English children are also present in bilinguals with a different language pair, namely Mandarin-Italian. The patterns under examination are:

1. the overuse of demonstrative NPs for referent reintroduction;
2. the preference for preverbal order when introducing new referents.

In order to investigate this issue, the study examines the referential choices of 4–8-year-old Mandarin-Italian bilingual children (N=10) for introduction and reintroduction in oral narratives. A comparable analysis was conducted with an age-matched group of monolingual Italian children (N=11), while no group of monolingual Mandarin-speaking children was included. For comparison with Mandarin monolinguals, reference was made to the findings of previous similar studies (see Section 4 below).

4 Methods

4.1 Participants

The participants were 10 children aged 4 to 8 years (M_{age} = 6;9) born and raised in Italy by families immigrated from the People's Republic of China and 11 children aged 4 to 8 years (M_{age} = 6;4) born and raised in Italy by monolingual Italian-speaking families. The children were recruited from two schools in the city of Bologna (Italy). The data were collected between November 2021 and March 2022. None of the children included in the study were reported by their teachers to have a history of speech disorders. All parents provided their consent to participate by signing a consent form. This study was reviewed and approved by the Ethics Committee of the University of Bologna. Table 2 provides descriptive statistics for the ages of the two groups. A Wilcoxon test showed that here was no significant difference in age between the two groups (W=41, p = .34).

Table 2. Descriptive statistics of age by language group.

Group	n	Mean (sd)	Range
Monolinguals	11	6;3 (1;0)	4;0 – 7;6
Bilinguals	10	6;7 (0;9)	4;5 – 8;0

A questionnaire (designed specifically for this study) was given to parents to assess exposure to the two languages. All children had been exposed to Italian from at least the age of three, coinciding with their entry into kindergarten. Italian is the only language spoken at school, and none of the bilingual children had attended an Italian language course as a second language at school at the time of data collection. The questionnaire revealed that the bilingual group has an average exposure to Italian of 47.62%, indicating a fairly balanced input. The questionnaire also aimed to gather information on the mothers' educational background, which some studies highlight as a relevant measure of input quality (Paradis, 2011, 2023). Among the mothers of bilingual children, 70% (7/10) reported holding a high school diploma, suggesting a mid-socioeconomic status background. One mother reported having attended only the primary school, while two did not provide any information. The questionnaire for the monolingual families was fully completed by only 36% of the families (4/11). Among these, three mothers reported having a university degree, and one reported holding a high school diploma. However, the data are too limited to draw any conclusions about the socioeconomic background of the monolingual group.

4.2 Materials and procedure

For the collection of narrative productions, two stories from MAIN (Gagarina et al., 2019) was used: the *Baby Goats* story was used to gather productions in Italian from both the monolingual and the bilingual group (Levorato & Roch, 2020), while the *Baby Birds* story was used to collect stories in Mandarin from the bilingual group (Luo et al., 2020).[2] MAIN has been effectively employed to elicit oral narratives from children across various languages, including Mandarin (Sheng et al., 2020) and Italian (Roch et al., 2016). The two stories have parallel episodic structures and are comparable in terms of actions and emotions of the characters. Each narrative involves five characters: a mother goat/bird, two baby goats/birds, a fox/cat, and a crow/dog. The stories are organized into three episodes, with each episode illustrated by two pictures.

Data collection was organized into two sessions, the first conducted in Italian and the second in Mandarin,[3] all administered by native speakers and videotaped. An interval of four to seven days was maintained between the two tasks. During the task, the children were asked to observe the pictures and narrate the story to an interlocutor who could not see the images, in order to avoid knowledge sharing that could influence referential choices. In the present study, the child was presented with one picture at a time, differing from the procedure recommended by the MAIN protocol.

[2] In this study, the same story was used for all participants within each language, rather than counterbalancing the stories across languages. However, it should be acknowledged that this method does not fully align with the counterbalancing recommendations of the MAIN procedure.

[3] Due to the availability of native Mandarin speakers and restrictions related to the Covid-19 emergency, the randomization of the languages for the tasks was not possible.

4.3 Transcription, coding and analysis

The stories were transcribed verbatim using the CHAT format (MacWhinney, 2000), and all NPs that referred to the characters were extracted and coded by native speakers.[4] The unit of analysis was the clause, defined based on the presence of a verbal predicate (Serratrice, 2007). All incomprehensible utterances, direct speech, nominal predicates, and sentences without predicates were excluded from the analysis. Following Zhou et al. (2022), each reference to a character was coded in terms of referential form, discourse function, and syntactic position (only for the introduction function). For the purposes of this study, referential forms were classified as either demonstrative NP or other, in both Italian and Mandarin. The syntactic position of the NP for the introduction of new referents was coded as either preverbal or postverbal, while the discourse functions considered in the annotation were introduction (INTRO), referring to the first mention of a character, and reintroduction (REINTRO), referring to a character whose previous mention was not in the immediately preceding discourse (the reintroduction coding follows Zhou et al. 2022, who refer to Colozzo & Whitley, 2014 and Serratrice, 2007). Expressions used for referent maintenance were also coded but were not considered for the purpose of the present study.

In order to assess children linguistic competence in both languages, the following measures were extracted from the narratives:

- *Sentence Complexity*: two measures of sentence complexity were computed:
  - the mean length in morphemes of each child's five longest utterances (MLU5) (see MacWhinney, 2000).
  - the ratio of the total number of main and subordinate clauses to the total number of sentences (SubIndex) (based on the procedure described in Restrepo et al., 2010).
- *Lexical Diversity:* two measures of lexical diversity were computed:
  - vocabulary diversity derived from Type/Token ratio (VOCD) (computed as explained in MacWhinney, 2000 and Malvern et al., 2004).
  - the number of different verb types (NDV) (see Hadley et al., 2016).
- *Grammaticality* (GRAM) was computed as the proportion of grammatical sentences over the total number of analyzable sentences per individual (see Simon-Cereijido & Gutierrez-Clellen, 2007). Grammaticality was judged by one native speaker linguist per language.

For the calculation of MLU5, VOCD, and NDV, the MOR software in CLAN (MacWhinney, 2000) was run on the transcriptions, whereas SubIndex and GRAM were calculated manually.

5 Results

The results of the analyses are presented below. This section is organized in three subsections: Section 5.1 presents the results of linguistic measurements for each language, while Section 5.2 deals with one of the two specific patterns under investigation, namely the overuse of

[4] The coding was conducted by a single native speaker for each language. Therefore, it is not possible to provide a measure of inter-annotator agreement.

demonstrative NPs in referent reintroduction, and Section 5.3 with the other, namely the preference for preverbal position in introducing new referents.

5.1 Linguistic competence

In this subsection the measures of children proficiency in both languages are presented. Table 3 below shows the descriptive statistics of linguistic measures in Italian both for monolingual and bilingual children.

Table 3. Descriptive statistics of proficiency measures in Italian by language group.

Measure	Monolinguals		Bilinguals	
	Mean (sd)	Range	Mean (sd)	Range
MLU5	21.45 (3.24)	14.8 – 26.8	14.26 (2.47)	9.25 – 17.8
SubIndex	0.74 (0.08)	0.59 – 0.85	0.81 (0.19)	0.46 – 1.00
VOCD	28.84 (7.54)	19.36 – 46.02	19.30 (7.30)	10.09 – 32.18
NDV	21.45 (4.67)	17 – 32	12.30 (3.91)	5 – 17
GRAM	0.9 (0.09)	0.7 – 1.0	0.2 (0.4)	0.0 – 0.8

A Wilcoxon test was conducted to compare the two groups on each measure. The results show that the bilingual group is significantly less proficient in Italian than the monolingual Italian-speaking group in all measures except for the SubIndex (MLU5: $W = 106$, $p < .001$; SubIndex: $W = 36$, $p < .08$; VOCD: $W = 90$, $p < .01$; NDV: $W = 109$, $p < .001$). Since Italian and Mandarin are typologically distant languages, particularly from a morphological perspective, the MLU5 and SubIndex measures were used exclusively for within-language comparisons (Italian) and not for cross-language comparisons (Italian vs Mandarin). To compare the bilingual group's proficiency in Italian and Mandarin, only the grammaticality of the sentences produced in the two languages and the two measures of vocabulary richness were considered. Table 4 presents the descriptive statistics for the proficiency measures in the home language (Mandarin) of the bilingual group.

Table 4. Descriptive statistics of proficiency measures in Mandarin.

Measure	Bilinguals	
	Mean (sd)	Range
VOCD	32.12 (10)	49.93 – 21.71
NDV	26.90 (6.9)	35 – 19
GRAM	0.8 (0.1)	0.7 – 1.0

A Wilcoxon test was conducted to compare each measure across the two languages. The results indicate that the bilingual group is significantly less proficient in Italian than in Mandarin in all measures (GRAM: $W = 97$, $p = .004$; VOCD: $W = 87$, $p = .003$; NDV: $W = 100$, $p < .001$).

5.2 Pattern 1: overuse of demonstratives

To verify whether the same pattern observed in Zhou et al. (2022), namely overuse of demonstrative NPs for referent reintroduction, is also present in the Mandarin-Italian bilingual group, all demonstrative NPs used to introduce and reintroduce story characters were extracted from the narratives and coded for their discourse function: introduction or reintroduction. The results are reported in table 5.

Table 5. Demonstrative NPs in Italian and Mandarin narratives.

Language	Monolinguals		Bilinguals	
	INTRO	**REINTRO**	**INTRO**	**REINTRO**
Italian	0% (0/49)	3% (5/170)	0% (0/48)	12% (18/150)
Mandarin	N/A	N/A	4% (2/55)	21% (30/140)

The results show that, in Italian, neither the monolingual group nor the bilingual ever use demonstrative NPs to introduce story characters. However, for referent reintroduction, bilingual children seemed to produce demonstrative NPs more frequently compared to their monolingual peers (12% vs. 3%). A Fisher's exact test was conducted to examine whether the use of demonstratives for referent reintroduction differed significantly between monolinguals and bilinguals. The test did not reach a significant difference (p=.45 odds ratio = 3.00 (95% CI: 0.03 to 260.72)). Examples in Italian are provided below from the productions of a monolingual child (7), who uses a definite NP, and a bilingual child (8), who uses a demonstrative NP, to refer to the fox in the *Baby Goats* story.

(7) ***la*** ***volpe*** *saltò*
the.F.SG **fox** jumped
'**the fox** jumped'

(8) ***quest-a*** ***volpe*** *vuole mangi-are*
this-F.SG ***fox*** *wants eat-INF*
'**this fox** wants to eat'

This study does not include monolingual Mandarin children but follows the approach of Zhou et al. (2022) and makes comparisons with results obtained in similar studies involving monolingual Mandarin children. Specifically, the study by Hickmann et al. (1996) with preschoolers and the one by Wu et al. (2015) with five-year-old children are used to make comparisons for the introduction function, while the study by Sah (2018) is used to as comparison for referent reintroduction. A comparison will also be made with the results obtained by Zhou et al. (2022) as an additional bilingual group. Table 6 below shows the percentage of demonstratives produced by monolinguals and bilinguals in Mandarin, in each of the aforementioned studies as well as in the present study.

Table 6. Percentages of demonstrative NPs in Mandarin narratives by monolingual and bilingual children.

	Hickmann	**Wu et al.**	**Sah (2018)**	**Zhou et al.**	**Present**
N	10	40	16	21	10
INTRO	17%	0–4%	N/A	35.37%	4%
REINTRO	N/A	N/A	8.7%	57.14%	21%

As shown in table 6, for the introduction function in Mandarin, the bilingual children in the present study produced very few demonstrative NPs (4%), with a percentage similar to that of the monolingual Mandarin children in the study by Wu et al. (2015). Mandarin-Italian bilinguals produce fewer demonstrative NPs than both the monolingual preschoolers in Hickmann et al. (1996) and the Mandarin-English bilinguals in Zhou et al. (2022). In the reintroduction function, bilingual children in the present study produced 21% demonstrative NPs compared to other forms of encoding, yielding results that fall between the monolinguals in Sah (2018) and the bilinguals in Zhou et al. (2022).

5.3 Pattern 2: preference for preverbal position

The second pattern under examination is the preference for the preverbal position in referent introduction. To address this question, only NPs used to introduce story characters were coded for their position relative to the verb. Table 7 below presents percentages and raw figures of preverbal and postverbal NPs (regardless their grammatical role) used by the children in Italian and Mandarin to introduce a new referent in the story.

Table 7. Number of preverbal and postverbal NPs in Italian and Mandarin narratives.

Language	Monolinguals		Bilinguals	
	Preverbal	**Postverbal**	**Preverbal**	**Postverbal**
Italian	33% (16/49)	67% (33/49)	58% (28/48)	42% (20/48)
Mandarin	N/A	N/A	24% (13/55)	76% (42/55)

Table 7 shows that for character introductions in Italian, the bilingual children exhibit a preference for the preverbal position (58% vs. 42%), while the monolingual children show a stronger preference for the postverbal position (67% vs. 33%). In contrast, in Mandarin, the bilinguals demonstrate a clear preference for the postverbal position compared to the preverbal position (76% vs. 24%). A Fisher's exact test was conducted to examine whether the word order preferences for referent introduction differed significantly between monolinguals and bilinguals. The test reached significance (p = .01, odds ratio = 0.35 (95% CI: 0.14 – 0.86)).

Comparisons between the present study and results obtained in similar studies involving monolingual Mandarin children are made. In this case the study by Hickmann et al. (1996) with preschoolers and the study by Wu et al. (2015) with five-year-old children are used to compare data of bilingual Mandarin-Italian children to Mandarin monolinguals. The results obtained by Zhou et al. (2022) are used as an additional bilingual control. Table 8 below shows the percentage of preverbal and postverbal NPs produced by monolinguals and bilinguals in Mandarin, by each of aforementioned studies.

Table 8. Percentage of preverbal and postverbal NPs in Mandarin by monolingual and bilingual children.

	Hickmann et al. (1996)	**Wu et al. (2015)**	**Zhou et al. (2022)**	**Present Study**
N	10	28	21	10
Preverbal	56%	64.68%	72%	24%
Postverbal	44%	35.32%	28%	76%

Table 8 shows a difference between the Mandarin-Italian bilinguals in this study, who have a clear preference for the postverbal position, and the patterns shown by both Mandarin monolingual children and Mandarin-English bilinguals, whose first mentions were more frequently preverbal than postverbal.

In order to get a clear picture of the word order patterns shown by the children of the present study, a qualitative analysis of to the types of structures where postverbal NPs occur was conducted.[5] Recall that, both Mandarin and Italian, in order to appropriately introduce a new referent, require the VS order in existential/presentative sentences, as well as with motion or position verbs (see section 2.1). In the Italian narratives of the monolingual children, 70% (23/33) of postverbal NPs were found in existential constructions with *c'è* 'there is' (recall 5), 15% (5/33) with motion verbs (recall 3) and 15% (5/33) are postverbal objects (whose canonical position in Italian is indeed postverbal). In the Italian narratives of the Mandarin-Italian bilingual children, 75% (15/20) of the postverbal NPs occurred in existential structures, 15% (3/20) were canonical postverbal objects, and 10% (2/20) appeared after the transitive verb *vedere* 'see', resulting in NPs whose grammatical role (subject or object) is ambiguous. It is worth noting here that, in the Italian narratives of the bilingual children, no NPs in postverbal position were found with motion or position verbs. In contrast, 11% (3/28) of the preverbal NPs were subject NPs of motion or position verbs, resulting in less appropriate structures (see 9 below).

(9) *e* ***mucca*** *più* *piccol-a* *arriv-o* *a acqua*
and **cow** more small.F.SG come.1.SG to water
'And a smaller **cow** comes to the water.'

In the Mandarin narratives by the bilingual children, 59% (25/42) of the postverbal NPs occurred in existential constructions featuring the verb *you* 'have' (see example 10 below), while 41% (17/42) are postverbal objects (canonical in Mandarin). Similarly to the productions in Italian, also in Mandarin, for cases involving verbs that require VS order (motion and position verbs, presentative constructions), bilingual children placed the NP in the preverbal position. This is shown in (11) with the motion verb *lái* 'come' and in (12) with the presentative verb *chūxiàn* 'show up', where a more appropriate structure in Mandarin is VS order.

(10) *yǒu* ***yī-ge*** ***māomī***
have **one-CL** **cat**
'There is **a cat.'**

(11) *Ránhòu* ***yī-ge*** ***xiǎo gǒuguò*** *lái* *le*
then **one-CL** **little dog** come LE
'Then **a little dog** came.'

(12) ***gǒugou*** *chūxiàn* *le*
dog show up LE
'A dog showed up.'

[5] For the purpose of this study the type of local marking on the NP was not taken into consideration, but it should be acknowledged that it indeed interacts with global markings in coding the givenness/newness of the referent, especially in Italian.

It therefore seems that when introducing a new referent, in both their languages, the bilingual children in this study exhibit a preference for the VS order only with existential constructions. In contrast, the preverbal position is preferred with other types of presentative constructions and with motion and position verbs, for which the VS order is more appropriate both in Italian and Mandarin. Considering these structures, the behavior of the Mandarin-Italian bilingual children in Mandarin seem to align with the preference shown by their monolingual and bilingual peers in previous studies.

6 Discussion and conclusion

This study was based on the findings from Zhou et al. (2022), which investigated bilingual children speaking English and Mandarin aged 4-6 years and found two specific patterns in their Mandarin productions: the overuse of demonstratives in character reintroductions and the preference for preverbal order when introducing new referents. In this study, the narrative productions of 10 bilingual Mandarin-Italian children (aged 4–8 years) born and raised in Italy by immigrant families from the People's Republic of China were analyzed to verify whether the same patterns could be found. An age-matched monolingual Italian group was also included, but not a monolingual Mandarin group; for the comparison with Mandarin monolinguals, reference was made to the results of previous studies (Hickmann et al., 1996; Wu et al., 2015; Sah, 2018; Zhou et al., 2022).

Regarding demonstrative NPs in referent introductions, the children in this study seem to have learned that a demonstrative NP is not appropriate for introducing a new character. In reintroduction, the bilingual children in the present study produced demonstrative NPs to a larger extent than both the Italian monolinguals included in the study (although the difference between the two groups did not reach statistical significance) and the Mandarin monolinguals from previous studies (Sah, 2018), but fewer than the bilingual peers speaking English and Mandarin from Singapore in the study by Zhou et al. (2022). Thus, it appears that the Mandarin-Italian bilingual children occupy an intermediate position between monolinguals and the balanced bilinguals from Singapore studied in Zhou et al. (2022).

The bilingual group in the present study produced a higher proportion of demonstrative NPs than both monolingual groups (Italian and Mandarin). This seems to suggest that the bilinguals' use of demonstrative NPs is not primarily driven by cross-linguistic influence, but rather by bilingualism itself. In Zhou et al. (2022), the children produced almost no demonstrative NPs in English, pointing to a clear direction of CLI and the reanalysis of demonstratives as definite articles in Mandarin, shaped by English. Considering the data of the present study, the CLI hypothesis can explain the overuse of demonstrative NPs in Mandarin compared to monolingual peers, attributed to the influence of the Italian definite article. However, it fails to fully account for the observed difference with monolingual Italian peers. Consequently, the explanation of cross-linguistic influence from a language with articles to one without does not seem sufficient to explain the data collected.

The hypothesis of a general effect of bilingualism leading to the overuse of demonstrative NPs in reintroducing referents appears preferable. The fact that demonstrative NPs serving as a local marking for definiteness is an option present in both languages seems to

facilitate its acquisition and use. Demonstrative NPs may constitute the easiest and fastest processing route, being less ambiguous for marking referent identifiability. Torregrossa and Bongartz (2018) argues that bilingual children with unbalanced proficiency, like those in the present study, exhibit slower and less efficient processing of the morphosyntactic options available in the target language. In Italian, given the children's lower proficiency compared to the monolinguals, demonstratives are likely to be the quickest and most efficient option to process, compared to the definite article as a local marker of definiteness (see also De Lange et al., 2009). In Mandarin, the child should rely on the global marker, which, however, as shown by psycholinguistic studies, is more challenging to manage and heavier to process (Hickmann, 2003); in this case, demonstrative NPs would also be a cognitively 'lighter' option. This aligns with studies on the referential expressions of bilinguals across different language combinations, which attribute their divergent referential patterns to processing efficiency—favoring cognitively less demanding strategies that still avoid referential ambiguity (Sorace & Filiaci, 2006; Sorace et al., 2009; Torregrossa et al., 2021).

Turning to the second phenomenon, children's preference for preverbal order for introducing new referents, the Mandarin-Italian bilinguals in the present study showed a preference for preverbal word order in Italian, unlike their monolingual peers, who preferred postverbal word order. In Mandarin, however, bilingual children demonstrated a preference for postverbal word order. This appears to be inconsistent with previous studies, where both Mandarin monolingual and bilingual children showed a preference for preverbal order (Hickmann et al., 1996; Wu et al., 2015). However, a further qualitative analysis of the structures in which postverbal NPs occur, revealed a more nuanced picture. The Mandarin-Italian bilingual children place NPs after the verb only in existential constructions, while they use the canonical SV order with motion and position verbs in both of their languages. These findings reveal that differences between monolinguals and bilinguals in Italian pertain specifically to motion and position verbs, with bilingual children making discourse-pragmatically less appropriate choices with these verbs. In Mandarin, with motion, position, and presentational verbs other than *you* 'there is', Mandarin-Italian bilingual children exhibit a preference for preverbal order, showing a behavior partially similar to their monolingual peers.

The Mandarin-Italian bilingual children, therefore, followed different patterns depending on the specific structures requiring VS order, and these patterns were identical across their two languages. They appear more prone to positioning the NP after specific existential markers (Italian *c'è* 'there is', Mandarin *you* 'to have') but not after other verbs that require postverbal position as well. Previous studies with Mandarin-speaking monolingual children have shown that structures involving non-canonical word order take longer to be acquired (up to 10 years), with acquisition timelines varying across structures (Hao et al., in press; Hickmann & Liang 1990; Ji et al., 2023). For example, Hickmann and Liang (1990) indicated that the production of postverbal subjects with motion verbs in Mandarin monolingual children occurs only after the age of five, suggesting a slower acquisition process compared to existential constructions, which, by contrast, emerge earlier. Furthermore, psycholinguistic studies have shown that global newness markings present additional difficulties, requiring that children disentangle the discourse and grammatical functions of clause structure (Hickmann, 2003,

p.136) and are therefore cognitively more demanding. It thus seems plausible that the preference for preverbal word order with motion verbs observed in the Mandarin-English bilingual children in Zhou et al. (2022) is not due to the influence of English, but rather to processing factors. Even bilingual children with a different language combination, like those in the present study (where Mandarin was paired with Italian, a language that requires the same word order for the same types of verbs as Mandarin) showed the same preference for preverbal position. Therefore, considering the greater cognitive demands of global strategies for marking newness and the Mandarin-Italian bilingual children's lower proficiency in Italian, the lack of postverbal position in Italian can be reasonably attributed to the challenges of mastering such structures in their weaker language. On the other hand, existential constructions possess particular properties that likely reduce their complexity in both languages: they involve clearly identifiable verbs (*essere* 'to be' in Italian, *you* 'to have' in Mandarin), are highly frequent in the input, and therefore are acquired early by monolingual children (Hickmann, 2003). These features could explain why they do not pose significant challenges for bilingual children either.

In conclusion, the specific patterns observed in bilingual children, both in the present study and in Zhou et al. (2022), seem to be linked to strategies aimed at reducing processing demands. This study represents just an initial step based on a small sample, and further research with a larger sample is necessary to obtain more comprehensive data and insights into the referential choices of Mandarin-Italian bilingual children. Future research would also benefit from examining the use of Mandarin demonstratives in Mandarin bilingual children with referents beyond characters. While Chinese demonstratives serve functions typically associated with the definite article in other languages, it does not serve this function when the referent is identifiable through other sources than previous mentions (e.g., identifiability based on general knowledge; see Chen, 2004). Therefore, it would be interesting to explore whether the overuse of Chinese demonstratives extends to non-anaphoric contexts. Additionally, examining language pairs with both languages having a rigid word order for introducing new referents could offer new useful insights. Also, a key methodological consideration emerges from this small-scale study, which is the importance of using consistent methodologies and comparable tools across studies. The MAIN, in this regard, offers valuable opportunities for future research, as it is available in multiple languages and provides a standardized method for studying referential abilities across diverse linguistic and cultural backgrounds.

References

Aalberse, S., Zou, Y., & Andringa, S. (2017). Extended use of demonstrative pronouns in two generations of Mandarin Chinese speakers in the Netherlands: Evidence of convergence?. In E. Blom, L. Cornips & J. Schaeffer (Eds.), *Cross-linguistic influence in bilingualism* (pp. 25-48). John Benjamins.

Andorno, C. (2012). The cohesive function of word order in L1 and L2 Italian: How VS structures mark local and global coherence in the discourse of native speakers and of learners. In M. Watorek, S. Benazzo & M. Hickmann (Eds.), *Comparative Perspectives on Language Acquisition: A Tribute ti Clive Perdue* (pp. 535–558). Multilingual Matters.

Andreou, M., Knopp, E., Bongartz, C., & Tsimpli, I. M. (2015). Character reference in Greek-German bilingual children's narratives. In L. Roberts, K. McManus, N. Vanek, & D. Trenkic (Eds.), *EUROSLA Yearbook* (Vol. 15, pp. 1–40). John Benjamins.

Bock, K., Irwin, D. E., & Davidson, D. J. (2004). Putting first things first. In J. M. Henderson & F. Ferreira (Eds.), *The interface of language, vision, and action: Eye movements and the visual world* (pp. 249–278). Psychology Press.

Ceja Tel Toro, P., Chen, J., & Narasimhan, B. (2016). *Information structure in bilingual Spanish-English child speech*. [Paper presentation]. International Workshop on Language Processing and Production, San Diego, CA, United States.

Chen, J., & Narasimhan, B. (2018). Information structure and ordering preferences in child and adult speech in English. In A. B. Bertolini & M. J. Kaplan (Eds.), *Proceedings of the 42nd Boston University Conference on Language Development* (pp. 131–139). Cascadilla Press.

Chen, J., Narasimhan, B., Chan, A., Yang, W., & Yang, S. (2020). Information structure and word order preference in child and adult speech of Mandarin Chinese. *Languages*, 5(2), 1–14. https://doi.org/10.3390/languages5020014

Chen, P. (2004). Identifiability and definiteness in Chinese. *Linguistics*, *42*(6), 1129–1184. https://doi.org/10.1515/ling.2004.42.6.1129

Chen, Y., Lee, P., & Pan, H. (2016). Topic and focus marking in Chinese. In C. Féry & S. Ishihara (Eds.), *The Oxford Handbook of Information Structure* (pp. 733–752). Oxford University Press.

Colozzo, P., & Whitely, C. (2014). Keeping track of characters: Factors affecting referential adequacy in children's narratives. *First Language*, *34*(2), 155–177. https://doi.org/10.1177/0142723714522164

De Cat, C. (2015). The cognitive underpinnings of referential abilities. In L. Serratrice & S. E. M. Allen (Eds.), *The Acquisition of Reference* (pp. 25–49). John Benjamins.

De Lange, J., Vasic, N., & Avrutin, S. (2009). Reading between the (head)lines: A processing account of article omissions in newspaper headlines and child speech. *Lingua*, *119*(10), 1523–1540. https://doi.org/10.1016/j.lingua.2008.04.005

Fanselow, G., (2014). Syntactic and Prosodic Reflexes of Information Structure in Germanic. In C. Féry & S. Ishihara (Eds), *The Oxford Handbook of Information Structure* (pp. 621–641). Oxford University Press.

Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Bohnacker, U., & Walters, J. (2019). MAIN: Multilingual Assessment Instrument for Narratives. *ZAS Papers in Linguistics*, *63*, 1–36. https://doi.org/10.21248/zaspil.63.2019.516

Gundel, J. K., Hedberg, N., & Zacharski, R. (1993). Cognitive status and the form of referring expressions in discourse. *Language*, *69*(2), 274–307. https://doi.org/10.2307/416535

Hadley, P., Rispoli, M., & Hsu, N. (2016). Toddlers' verb lexicon diversity and grammatical outcomes. *Language, Speech, and Hearing Services in Schools*, *47*(1), 44–58. https://doi.org/10.1044/2015_LSHSS-15-0018

Hao, J., Chondrogianni, V., & Sturt, P. (in press). Sources of children's difficulties with non-canonical sentence structures: Insights from Mandarin. *Journal of Child Language*, 1–28. Advance online publication. https://doi.org/10.1017/S0305000924000424

Hickmann, M. (2003). *Children's discourse: Person, space and time across languages*. Cambridge University Press.

Hickmann, M., Hendriks, H., Roland, F., & Liang, J. (1996). The marking of new information in children's narratives: A comparison of English, French, German, and Mandarin Chinese. *Journal of Child Language*, *23*(3), 591–619. https://doi.org/10.1017/S0305000900008965

Hickmann, M., & Liang, J. (1990). Clause-structure variation in Chinese narrative discourse: A developmental analysis. *Linguistics*, *28*(6), 1167–1200. https://doi.org/10.1515/ling.1990.28.6.1167

Hickmann, M., Schimke, S., & Colonna, S. (2015). From early to late mastery of reference: Multifunctionality and linguistic diversity. In L. Serratrice & S. E. M. Allen (Eds.), *The Acquisition of Reference* (pp. 181–211). John Benjamins.

Jia, R., & Paradis, J. (2015). The use of referring expressions in narratives by mandarin heritage language children and the role of language environment factors in predicting individual differences. *Bilingualism: Language and Cognition*, *18*(4), 737–752. https://doi.org/10.1017/S1366728914000728

Ji, Y., Sheng, L., & Zheng, L. (2023). Acquisition of non-canonical word orders in Mandarin Chinese. *Frontiers in Psychology*, *14*:1006148. https://doi.org/10.3389/fpsyg.2023.1006148

Levorato, M.C. & Roch, M. (2020). Italian adaptation of the Multilingual Assessment Instrument for Narratives. *ZAS Papers in Linguistics*, *64*, 139–146. https://doi.org/10.21248/zaspil.64.2020.566

Li, C.S., & Thompson, S.A. (1981). *Mandarin Chinese: A Functional Reference Grammar*. University of California Press.

Lindgren, J. & Bohnacker, U. (in press). (In)definites, pronouns and bare nouns: How Turkish/Swedish bilingual 4-to-7-year-olds introduce characters in narratives in Swedish. *Nordic Journal of Linguistics*. Advance online publication. https://doi.org/10.1017/s0332586524000192

Lindgren, J., Reichardt, V., & Bohnacker, U. (2022). Character introductions in oral narratives of Swedish–German bilingual preschoolers. *First Language*, *42*(2), 234–262. https://doi.org/10.1177/01427237198974

Luo, J., Yang, W. C., Chan, A., Cheng, K., Kan, R., & Gagarina, N. (2020). The Multilingual Assessment Instrument for Narratives (MAIN): Adding Mandarin to MAIN. *ZAS Papers in Linguistics*, *64*, 159–162. https://doi.org/10.21248/zaspil.64.2020.569

MacWhinney, B. (2000). The CHILDES Project: Tools for Analyzing Talk: Transcription Format and Programs. (3rd ed). Lawrence Erlbaum.

MacWhinney, B., & Bates, E. (1978). Sentential devices for conveying givenness and newness: A crosscultural developmental study. *Journal of Verbal Learning and Verbal Behavior*, *17*(5), 539–58. https://doi.org/10.1016/S0022-5371(78)90326-2

Mai, Z., Zhao, L., and Yip, V. (2021). The mandarin Ba-construction in school-age heritage speakers and their parental input. *Linguistic Approaches to Bilingualism*, *12*(3), 377–405. https://doi.org/10.1075/lab.18025.mai

Malvern, D., Richards, B., Chipere, N., & Purán, P. (2004*). Lexical diversity and language development*. Palgrave Macmillan.

Moro, F. (2016). *Dynamics of Ambon Malay: Comparing Ambon and the Netherlands*. [Unpublished doctoral dissertation]. Radboud University, Nijmegen.

Narasimhan, B., & Dimroth, C. (2008). Word order and information status in child language. *Cognition 107*(1), 317–329. https://doi.org/10.1016/j.cognition.2007.07.010

Otwinowska, A., Mieszkowska, K., Białecka-Pikul, M., Opacki, M., & Haman, E. (2020). Retelling a model story improves the narratives of polish-English bilingual children. *International Journal of Bilingual Education and Bilingualism*, *23*(9), 1083–1107. https://doi.org/10.1080/13670050.2018.1434124

Paradis, J. (2011). Internal and external factors in child second language acquisition. *Linguistic Approaches to Bilingualism*, *1*(3), 213–237. https://doi.org/10.1075/lab.1.3.01par

Paradis, J. (2023). Sources of individual differences in the dual language development of heritage bilinguals. *Journal of Child Language*, *50*(4), 793–817. https://doi.org/10.1017/S0305000922000708

Polinsky, M. (2006). Incomplete acquisition: American Russian. *Journal of Slavic Linguist*ics, *14*(2), 191–262. https://www.jstor.org/stable/24599616

Restrepo, M.A., Castilla, A. P., Schwanenflugel, P. J., Neuharth-Pritchett, S., Hamilton, C. E., & Arboleda, A. (2010). Effects of a supplemental Spanish oral language program on sentence length, complexity, and grammaticality in Spanish-speaking children attending English-only preschools. *Language, Speech and Hearing Services in Schools*, *41*(1), 3–13. https://doi.org/10.1044/2018_JSLHR-L-18-0324

Roch, M., Florit, E., & Levorato, C. (2016). Narrative competence of Italian–English bilingual children between 5 and 7 years. *Applied Psycholinguistics*, *37*(1), 49–67. https://doi.org/10.1017/S0142716415000417

Rozendaal, M. I. (2008). *The acquisition of reference: a cross-linguistic study*. Unpublished PhD thesis. University of Amsterdam, Amsterdam, the Netherlands.

Sah, W.-H. (2018). Referential choice in narratives of mandarin-speaking children with autism spectrum disorder: form, function, and adequacy. *First Language, 38*, 225–242. https://doi.org/10.1177/0142723717739198

Salazar Orvig, A. (2019). Reference and referring in first language acquisition. In J. K. Gundel & B. Abbott (Eds.), *The Oxford Handbook of Reference* (pp. 283–308). Oxford University Press.

Semsem, M., & Chen, J. (2019). The use of word order to mark information status in adult and child Arabic. In T. Driscoll (Ed.), *The Proceedings of the 30th Western Conference on Linguistics* (pp. 173–78). Department of Linguistics, California State University.

Serratrice, L. (2006). Referential cohesion in the narratives of bilingual English-Italian children and monolingual peers. *Journal of Pragmatics*, *39*(6), 1058–1087. https://doi.org/10.1016/j.pragma.2006.10.001

Serratrice, L. (2007). Cross-linguistic influence in the interpretation of anaphoric and cataphoric pronouns in English–Italian bilingual children. *Bilingualism: Language and Cognition*, *10*(3), 225– 238. https://doi.org/10.1017/S1366728907003045

Sheng, L., Shi, H., Wang, D., Hao, Y., & Zheng, L. (2020). Narrative production in Mandarin-speaking children: Effects of language ability and elicitation method. *Journal of Speech, Language, and Hearing Research*, *63*(3), 774–792. https://doi.org/10.1044/2019_JSLHR-19-00087

Simon-Cereijido, G., & Gutierrez-Clellen, V. F. (2007). Spontaneous language markers of Spanish language impairment. *Applied Psycholinguistics*, *28*(2), 317–339. https://doi.org/10.1017/S0142716407070166

Sorace, A., & Filiaci, F. (2006). Anaphora resolution in near-native speakers of Italian. *Second. Language Research*, *22*(3), 339–368. https://doi.org/10.1191/0267658306sr271oa

Sorace, A., Serratrice, L., Filiaci, F., & Baldo, M. (2009). Discourse conditions on subject pronoun realization: testing the linguistic intuitions of older bilingual children. *Lingua 119*(3), 460–477. https://doi.org/10.1016/j.lingua.2008.09.008

Sparvoli, C. (2017). Fenomeni di inversione in cinese e in italiano. In C. Bulfoni (Ed.), *Linguistica Cinese. Tendenze e Prospettive* (pp. 113-142). Unicopli.

Stephens,N.M. (2010). Given-Before-New: The Effects of Discourse on Argument Structure in Early Child Language. [Unpublished doctoral dissertation], Stanford University, Stanford, CA, United States.

Topaj N. (2010). Topical referential expressions in narratives of Russian-German bilingual children. In Chini M. (Ed). *Topic, information structure and language acquisition*, 59–72. Franco Angeli.

Torregrossa J., Andreou M., Bongartz C., Tsimpli, I.M. (2021). Bilingual acquisition of reference: The role of language experience, executive functions and crosslinguistic effects. *Bilingualism: Language and Cognition*, *24*(4), 694–706. https://doi.org/10.1017/ S1366728920000826

Torregrossa J., & Bongartz C. (2018). Teasing Apart the Effects of Dominance, Transfer, and Processing. Reference Production by German–Italian Bilingual Adolescents. *Languages*, *3*(3), 36. https://doi.org/10.3390/languages3030036

Wu, Z., Huang, R., & Zhang, Z. (2015). Hanyu (bu) dingzhi biaoji ertong xide yanjiu. [Acquisition of (in)definiteness markers in child Mandarin]. Wàiyǔ jiàoxué yǔ yánjiū [Foreign Language Teaching and Research] *47*(2), 176–189.

Zhou, J., Mai, Z., Cai, Q., Liang, Y., & Yip, V. (2022). Reference production in Mandarin-English bilingual preschoolers: Linguistic, input, and cognitive factors. *Frontiers in Psychology*, *13*:897031. https://doi.org/10.3389/fpsyg.2022.897031