

Abstracts Booklet

MORE THAN ONE LANGUAGE IN THE BRAIN: ACQUISITION AND COEXISTENCE

Workshop at the Università per Stranieri di Perugia

February 25, 2015



Invited speakers

Adriana Belletti (Università di Siena / Université de Genève)

Cornelia Hamann (Carl von Ossietzky Universität Oldenburg)

**MOR
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2015**

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WORKSHOP

More than one language in the brain: acquisition and coexistence

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Aula VI

8.50- 9.20	Registration
9.20 – 9.30	WELCOME
9.30 – 10.30	Keynote Speaker: Adriana Belletti (Università di Siena / Université de Genève) <i>On the acquisition of complex derivations</i>
10.30 – 11.10	Shenai Hu and Maria Teresa Guasti (Università di Verona, Università di Milano Bicocca) <i>Complexity in the acquisition of relative clauses: evidence from school- age Chinese-Italian bilinguals</i>
11.10 – 11.30	COFFEE BREAK
11.30 – 12.10	Cristina Flores and Esther Rinke (University of Minho, Braga, Goethe Universität Frankfurt am Main) <i>The grammar of Portuguese heritage bilinguals is not incomplete</i>
12.10 – 12.50	Petra Bernardini and Monica Timofte (University of Lund, Ștefan cel Mare University of Suceava) <i>On the direction of crosslinguistic influence in the bilingual acquisition of object clitics</i>
12.50 – 14.20	LUNCH
14.20 - 15	Poster Session
15.00- 15.40	Stefano Rastelli (CAROLE- University of Greenwich) <i>Quantized Second Language Acquisition</i>
15.40 – 16.20	Loredana Pozzuoli (Università per Stranieri di Perugia) <i>Exploring the use of request modification devices in Italian learners of English</i>
16.20 – 17.00	Lena Dal Pozzo (Università di Firenze) <i>L2 Acquisition at Interfaces: New Information subjects in Finnish L2</i>
17.00 – 17.20	COFFEE BREAK
17.20 – 18.00	Maria Vender, Maria Teresa Guasti, Maria Garraffa, Antonella Sorace (University of Verona, University of Milano Bicocca, Heriot Watt University-Edinburgh, University of Edinburgh) <i>Child L2 learning and Specific Language Impairment: superficially similar but linguistically different</i>
18.00 – 19.00	Keynote Speaker: Cornelia Hamann (Carl von Ossietzky Universität Oldenburg) <i>Types of syntactic complexity: How typical and atypical bilinguals deal with complex structures.</i>
19.00 – 19.10	FAREWELL
20.30	SOCIAL DINNER

Posters:

Carla Contemori, Lena Dal Pozzo, Simona Matteini (UPenn, Firenze, Siena) *Resolving pronominal anaphora in real time*

Yara Formisano (Università degli Studi di Perugia) *Scalar Implicatures in English L2*

Angelika Prattes (Karl-Franzens-Universität Graz) *Language systems in German- English Bilinguals. A study on Placement Verbs*

Borbala Samu (Università per Stranieri di Perugia) *Modal verbs in L2 Italian of English speakers: grammaticalization and Polysemy copying*

Chiara Vitolo, Valerio Santangelo (Università per Stranieri di Perugia, Università degli Studi di Perugia) *Multisensory integration effects in the phonological acquisition of a foreign language*

Keynote Speakers

Adriana Belletti

Università di Siena, Université de Genève

On the acquisition of complex derivations

The talk considers the derivation of structures that display some apparent complexity in their syntactic derivations and the long distance dependencies that they involve such as passives, causatives, relative clauses. It addresses the issue of the acquisition of these dependencies in different modes of acquisition, disentangling various derivational ingredients and their formal role in contributing to the status of the various structures considered.

Cornelia Hamann

Carl von Ossietzky Universität Oldenburg

Types of syntactic complexity: How typical and atypical bilinguals deal with complex structures

Due to its increasing theoretical and practical relevance, the problem of how to reliably diagnose Specific Language Impairment in multilingual settings has been intensively investigated in recent years. From the practical point of view, it is often impossible to test both languages of a child so that developing sensitive and specific tests in the ambient language is not only desirable but necessary if over- and underdiagnosis are to be avoided. From a theoretical, developmental and linguistic, point of view, it can be hypothesized that certain, computationally complex structures will be problematic for children with language impairment but not necessarily for their typical peers.

This hypothesis will be explored with respect to the production of relative clauses. Starting from cross-linguistic monolingual elicitation data and results from spontaneous speech, I will focus on new data from a sentence repetition task (SRT) administered to monolingual children and children who either acquired two languages from birth or can be classified as early L2 learners (both subsumed under the term “bilingual” here). As it turns out, monolingual and bilingual 6-to 10 year olds pattern alike in their good mastery of long passives, subject relatives and object relatives without interveners. They also pattern alike in showing difficulties with object relatives of the type “the lion who the elephant is wetting”. Monolingual and bilingual children with SLI, on the other hand, have great difficulties with all these constructions: they master neither embedding nor Wh-movement.

We can conclude that typical children acquiring a second language may have initial difficulties in dealing with their two languages, but they clearly do not show persistent problems in the computation of complex constructions. In contrast, monolingual and bilingual children with SLI perform poorly in an SRT which specifically targets such constructions. Implications for linguistic theory, the underlying deficit of SLI and the bilingual brain will be explored.

Presenters

On the direction of crosslinguistic influence in the bilingual acquisition of object clitics

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Key words: directionality of crosslinguistic influence, object clitics, L1/L2

This paper addresses the question of the directionality of crosslinguistic influence in the bilingual acquisition of object clitic pronouns (OCL) in French, Italian and Romanian. Hamann & Belletti (2006) and Granfeldt (2012) have shown that the placement of OCLs in French distinguishes bilingual acquisition from monolingual acquisition, in that misplacements are only found in the first type of acquisition. This suggests that the lack of the category clitic pronoun in the Germanic language of the child might be the indirect cause of misplacements. More specifically, the OCL is treated as a weak pronoun in French and hence put in the wrong position, which could be seen as an instance of crosslinguistic influence in one direction, i.e. from the Germanic languages to French. The fact that there are no misplacements in the bilingual acquisition data from a closely related language as Italian, could be interpreted as if the unidirectional crosslinguistic influence was reinforced by French as a target language but not by Italian as a target language, since French has a more systematic use of weak pronouns than Italian (Hamann & Belletti 2006). One influential claim on crosslinguistic influence in bilingual acquisition is that one of its conditions to occur should be that there are structures that only from the child's perspective are possible in both languages (Müller & Hulk, 2001), due to variability in the input (Miller & Hendricks, 2014). In order to test the direction of crosslinguistic influence in the bilingual acquisition of OCLs, we carried out two elicited production studies on the placement of OCLs on simultaneous and successive bilingual children aged 4-7: one on French/Italian (N=15) and one on Romanian/Italian (N= 27). Misplacements of OCLs were found both in L1 (as dominant as well as heritage language), L2 and 2L1 children, in both studies. In the first study, crosslinguistic influence was observed in the form of misplacements of OCLs in both French and Italian in constructions with a modal auxiliary involved, were both languages present variable input to the learner: Italian allowing for the OCL to occur both before the finite modal verb and after the infinitive (*lo voglio vedere/voglio vederlo* '(I) it want to see'/'(I) want to see it') and French allowing for the OCL to occur before the auxiliary 'avoir' but after the modal 'vouloir' (*je l'ai vu/je veux le voir* 'I it have seen/I want it see). In the second study misplacements were also found, in Romanian only, and in addition, contrary to the first study, wrong gender forms of the produced OCLs both in Romanian and Italian. Considering that misplacements have not been found in the monolingual acquisition of Romanian (Babyonyshev & Marin, 2006) or Italian (see Hamann & Belletti 2006), this finding might be interpreted as if the variability of the OCL's placement in Romanian leads to misplacements and gender errors in bilingual acquisition, since OCL placement in Romanian varies according to gender, amongst other things. On the basis of our findings on the placement of OCLs in French/Italian and Romanian/Italian bilingual children we claim that crosslinguistic influence may be bidirectional, depending on the kind and degree of variability presented in the input of the languages involved and not on their respective status (L1, L2, dominant or not).

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Resolving pronominal anaphora in real-time: a comparison between Italian native and near-native speakers.

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Keywords: syntax-discourse interface, anaphora resolution

The Interface Hypothesis (Sorace & Filiaci, 2006, S&F) conjectures that adult second language (L2) learners who are highly proficient in their L2 exhibit difficulties at the interface between syntax and other cognitive domains, most notably at the syntax-discourse interface. However, research in this area was limited, in that the data were off-line, and thus unable to provide evidence for the nature of the deficit shown by L2 learners. In the present paper, we aim at contributing to fill this gap, by analyzing the on-line processing of pronominal anaphora in Italian L2, a phenomenon at the syntax-discourse interface. Previous off-line results on the interpretation of forward anaphora (e.g., S&F, 2006) indicate that near-native speakers have acquired the syntactic constraints on null (1) and pronominal (2) subjects in Italian, but may have residual indeterminacy in the interface processing strategies they employ in interpreting pronominal forms (2).

(1) La mamma dà un bacio alla figlia, mentre __ si mette il cappotto.

‘The mother kisses the daughter, while __ is putting on the coat.’

(2) L’anziana signora saluta la ragazza, quando lei attraversa la strada.

‘The old lady greets the girl, when she is crossing the road.’

The present study presents online data which address the question of the underlying nature of the difficulties observed in L2 learners at the syntax-discourse interface, by investigating the off-line and on-line comprehension of null and pronominal subjects in Italian. Twelve native Italian-speaking adults and ten near-native Italian speakers whose first language is English participated in an off-line comprehension task based on S&F (2006) and an on-line self-paced reading task that tested antecedent assignment in forward anaphora contexts with null and overt pronouns. Accuracy scores on the off-line task showed that the two groups performed very similar with respect to the null subject pronouns. Compared to native speakers, however, the near-natives had a significantly higher preference for the subject of the matrix clause as a possible antecedent of overt subject pronouns (Reference type by Group interaction: $p < .05$). In the self-paced reading task, the experimental sentences consisted of a subordinate clause, introducing the two antecedents, followed by a main clause, containing either a null, (3) and (4), or an overt anaphoric subject, (5) and (6).

Null subject - correct:

(3) Dopo che la madre ebbe salutato la figlia, __ abbracciò la figlia per augurarle buona fortuna.

‘After the mother greeted the daughter, __ gave the daughter a hug to wish her good luck.’

(4) Null subject - incorrect:

Dopo che la madre ebbe salutato la figlia, abbracciò la madre per augurarle buona fortuna.

‘After the mother greeted the daughter, ___ gave the mother a hug to wish her good luck.’

(5) Overt pronoun - correct:

Dopo che la madre ebbe salutato la figlia, lei abbracciò la madre per augurarle buona fortuna.

‘After the mother greeted the daughter, she gave the mother a hug to wish her good luck.’

(6) Overt pronoun - incorrect:

Dopo che la madre ebbe salutato la figlia, lei abbracciò la figlia per augurarle buona fortuna.

‘After the mother greeted the daughter, she gave the daughter a hug to wish her good luck.’

The antecedent of the anaphoric subject was temporarily ambiguous between the subject (i.e., la madre ‘the mother’) and the object (i.e., la figlia ‘the daughter’) of the previous clause and was disambiguated by a postverbal NP in the subordinate clause, forcing the interpretation of the anaphoric subject towards the subject NP (e.g., la madre ‘the mother’ in (3) and (6)) or the object (e.g., la figlia ‘the daughter’ in (4) and (5)) in the main clause. The results of the self-paced reading task (Fig. 1-2) showed no significant differences between the native speakers and the near-natives, suggesting that the processing of the null-subject and pronominal anaphora is qualitatively very similar in the two groups.

Figure 1. Overt pronoun: mean RTs (e.g., figlia / lei / abbracciò / la / figlia / per / augurarle / buona)

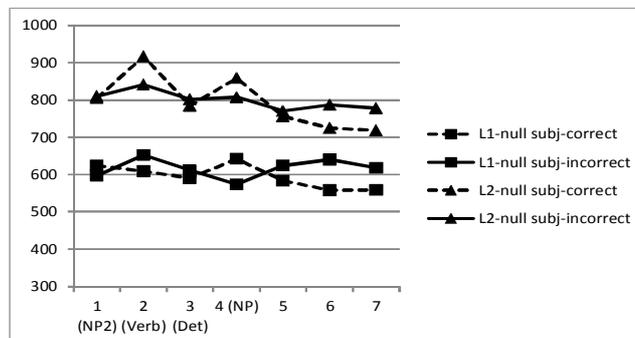
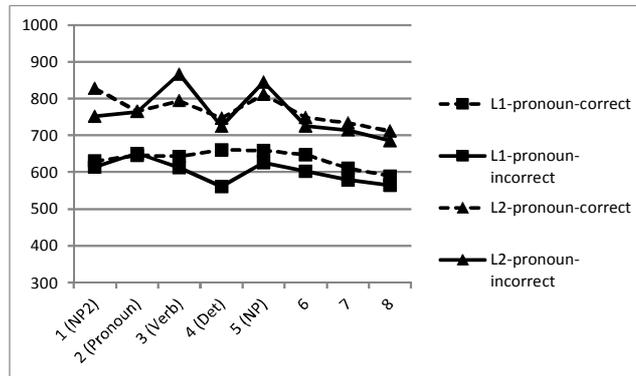


Figure 2. Null pronoun: mean RTs (e.g., figlia / abbracciò / la / figlia / per / augurarle / buona)



The results of the off-line study confirm that a discrepancy emerges between native and near native speakers with respect to antecedent assignment in overt pronoun contexts (2), but not in null pronoun contexts (1) (e.g., S&F, 2006). The on-line results suggest that divergent patterns between L1 and near-native speakers might be attributed to competition for processing resources between languages, rather than specific processing difficulties in the L2.

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L2 Acquisition at Interfaces: New Information Subjects in Finnish L2

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Keywords: Finnish L2 acquisition, pro-drop

Finnish has been recently classified as a partial null subject language (PNSL) (Holmberg et al. 2009, Holmberg & Sheehan 2010). Finnish allows 1st and 2nd person null subjects but it does not allow 3rd person null subjects, except in some embedded clauses when the null subject is ‘controlled’ by a higher argument and with weather verbs. The present study aims at (i) enriching the ongoing discussion on the properties of partial null subject languages presenting and (ii) discussing experimental data on the production of new information subject in Finnish L1 and Finnish L2, a phenomenon located at the syntax-discourse interface. As emerging from the discussion on answering strategies carried out in Belletti (2001, 2004), Belletti, Bennati & Sorace 2007, the traditional classification in null subject language (NSL) and non null subject languages (NNSL) is reflected at the syntax-discourse interface by the word orders and structures adopted in contexts in which the subject is interpreted as new information. NSLs such as Italian typically adopt a Verb-Subject order (*free inversion*) (Chi è arrivato? – È arrivato Gianni) whereas NNSLs resort to other possibilities, such as cleft strategies in French (Qui est arrivé? – C’est Jean) or *in situ* focalization, resulting in the Subject-Verb order, in English (Who came? – John came). As thoroughly discussed in the literature, there is a relation between the possibility to instantiate free inversion, with the subject interpreted as new information, and the null subject nature of the language (Rizzi 1982, Burzio 1986, Hulk & Pollock 2001, Kayne 2005, Sheehan 2010 a.o.). Successively, it has been postulated that in NSLs a lower vP-peripheral subject position is activated in free inversion structures when the subject is interpreted as new information (Belletti 2001, 2004) with a small *pro* that satisfies the EPP property of the relevant high subject position of the clause. In the light of these findings the present study shows experimental results on Finnish, a PNSL, and discusses which answering strategies are exploited under similar discourse conditions. The discussion is further extended to Finnish L2 data by speakers whose L1 is a NSL (Italian) and to the related acquisitional issue. Data was collected through a video test that was administered to 15 adult native speakers of Finnish and to 10 adult L2 speakers of Finnish (L1 Italian). The experimental task (first created by Belletti & Leonini 2004 and used by Belletti, Bennati & Sorace 2007 for Italian, successively adapted in Guesser 2007 for Brazilian Portuguese, Kras 2010 for Croatian, Dal Pozzo 2011 for Finnish) consists of 22 short videos and aims at creating the ideal discourse-pragmatic conditions for question-answer pairs in which the subject is new information focus. The task was implemented through a Power Point presentation run on a laptop and each participant was tested individually. The main results for the L1 group show that in Finnish new information subjects can be generally interpreted as such in preverbal position (82% for transitive verbs, 88% for unaccusative verbs, 84,9% for unergative verbs) and no free inversion of the type observed in NSLs is observed. However, also other answering strategies emerge (and are in fact grammatically and pragmatically correct structures in such discourse contexts), such as XPVS and clefts. In particular, the possible activation of the vP peripheral new information focus position will be discussed in the light of the XPVS word order. It will be proposed that the Finnish XPVS order instantiates a different way to

satisfy the EPP property of the high subject position of the clause, different from the one characteristically exploited in a NSL. As for the L2 group the results show that L2ers almost never adopt strategies different from the canonical SV(O) order (97% for transitive verbs, 100% for unaccusative verbs, 94,3% for unergative verbs). The data will be corroborated by production samples of written texts in Finnish L2 in which the use of null/overt pronominal subjects emerge. It will be discussed whether this is due to acquisitional processes or whether it might be the case that Finnish is acquired (at least at this stage) as a NNSL due to the input sources available to this kind of L2ers.

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The grammar of Portuguese heritage bilinguals is not incomplete

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In this presentation, we argue against the view that the I-grammar of so called heritage bilinguals (i.e. early bilinguals which acquire one of their native languages as a minority language) is per se incomplete or deficient. We will identify some factors which may be responsible for the fact that their linguistic output may show some differences in comparison to monolingual speakers. Although it is uncontroversial by now that the human language faculty is endowed with the ability to acquire more than one native language as a native language (Meisel, 2001), it has been noticed that speakers acquiring a minority language in a familial context (so-called heritage bilinguals) may not reach the same proficiency in their heritage language as monolingual speakers (Montrul, 2008). However, the extent to which heritage speakers differ from the monolingual controls depends on the type of test, the linguistic domain as well as the phenomenon under investigation. In our paper, we will focus on the linguistic competence of Portuguese migrants who were born in Germany and have acquired European Portuguese (EP) as heritage language and German as the dominant environmental language. We will compare them to monolingual speakers living in Portugal by summarizing the results of three different data elicitation tasks: a) a global foreign accent rating test, b) a grammaticality judgment task focusing on their knowledge of object clitics and c) the analysis of a corpus of spontaneous speech with respect to the realization of objects. We will pursue the following research questions: i) Does the output of heritage bilinguals differ from that of monolinguals in the different tasks?, ii) If yes, in which respects does it differ and which domains are particularly problematic?, iii) How can the differences between bilingual and monolingual native speakers be explained? In the global accent rating task, speech samples of monolingual and bilingual speakers were rated by monolingual EP listeners according to their degree of nativeness. The stimuli included were speech samples collected in naturalistic semi-spontaneous production tasks (e.g., interview, story narration, picture description, and biographic accounts). In this talk we will compare the results of two groups: 12 lusophone heritage speakers (10 female (F) and 2 male (M)) in the age span of 19 to 30 years (mean age = 23.08 yrs; standard deviation (SD) = 4.01 yrs), who grew up in Germany or Switzerland and 6 monolingual Portuguese speakers with ages ranging from 26 to 43 years (mean age = 32.17 yrs; SD = 7.65 yrs). The results demonstrate that heritage bilinguals show higher variation concerning the evaluation of their accent, whereas monolingual participants were consistently rated as native speakers of EP (mean rating 1.07; SD = 0.07). This meets the results reported by similar studies (Hopp & Schmid, 2013; Kupisch et al., 2014; Stangen et al., in press). Nevertheless, the mean value of the heritage speakers' group is very close to that of the monolinguals (mean = 1.72; SD = 0.98).

The second kind of data comes from an offline grammaticality judgment test (Rinke & Flores, 2014) focusing on the speakers' morpho-syntactic knowledge of clitics. We will focus on the results of 16 lusophone heritage speakers in the age span of 20 to 43 years (mean age = 28.8; standard deviation [SD] = 6.7) and 16 Portuguese monolingual speakers in the age span of 17 to 49 years (mean age = 28.3; SD = 11.1). Their morpho-syntactic knowledge of clitics is of special interest because this domain includes aspects stabilized through the formal and written register, as well as properties that show variation between the vernacular and more formal register. The results reveal that overall heritage speakers show lower performance than the monolingual controls, presumably attributed to lower explicit knowledge and metalinguistic awareness. They deviate from monolinguals especially in aspects that are acquired late in L1 acquisition and explicitly trained in classroom instruction (e.g. allomorphic forms of clitics, see (1)), whereas they perform much better with respect to phenomena that are related to the spoken register (e.g. clitic climbing, see (2)). In particular, the heritage

speakers - although they may not reach the same level of accuracy as the monolingual speakers - show the same sensitivity to phonological distinctions and case asymmetries (e.g. with respect to topicalisation), which are part of the implicit knowledge of native speakers of EP.

- 1) (*O ladrão escondeu-se*) *mas os meninos **viram-no***. (enclitic *-no* instead of *-o* after nasal)
(the thief hides-himself) but the children saw-him_{clitic}
- 2) *Hoje não consegui fazer o teu bolo preferido, mas **posso-o** fazer amanhã.*
today not managed to make the your cake preferred but (I) can-it_{clitic} do tomorrow

For the purpose of this paper we analyzed a third type of data, namely the spontaneous speech consisting of oral interviews. We compared the realization of object by 8 heritage bilinguals and 8 age-matched monolinguals (5474 tokens) with respect to frequency of occurrence and target deviant structures in the following conditions: object type (DP, clause, clitic, demonstrative pronoun, strong pronoun, double object, null object, QU-element), clitic position (proclisis vs. enclisis), clitic climbing, use of clitic allomorphs (-lo(s), -la(s), -no(s), -na(s)) and case (accusative vs. dative). The results show that the two groups make use of all options of object realization in EP and even show the same tendencies. The only difference between the heritage bilinguals and the monolingual speakers consists in the fact that the former use considerably more null objects and demonstratives at the expense of clitic pronouns. This indicates that bilinguals tend to avoid the use of clitics. Additionally, there are very few examples of target deviant structures in the speech of both groups. The bilinguals only make some more errors with respect to the ungrammatical use of enclisis in proclitic contexts (see (3)). However, the overall rate is very low (14 cases of ungrammatical enclisis and 214 cases of grammatical enclisis). There are no cases of deviant allomorphic forms – a subject that was particularly difficult in the GJT.

- 3) **Mas não conheciam-se antes*
but no knew-them_{clitic} before

In conclusion, although they have difficulties in some domains in the GJT, there are only slight differences between the heritage bilinguals and the monolingual controls with respect to their global accent and spontaneous speech production. The difficulties in the GJT are mainly related to constructions which are part of the written/formal register and with the fact that an untimed GJT requires a certain amount of metalinguistic knowledge. Both factors may explain the differences in the bilinguals' linguistic output; however the data show clearly that the I-grammar of adult heritage speakers is not deficient or incomplete if compared to monolinguals.

Scalar implicatures in English L2

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This study investigates scalar implicature comprehension in English L2. Recent research (Feeney et al. 2004, Guasti et al. 2005, among others) suggests that the rate of scalar implicature drawing in adult L1 is not at ceiling level as one would expect in native speakers. The interpretation of scalar items such as ‘some’ is not always a pragmatic one, that is to say there is a percentage of native speakers that interpret them in their logical sense (‘possibly all’ in the case of ‘some’). Slabakova (2010) tested a group of Korean learners of English both in their L1 and L2 to assess their scalar implicature comprehension and found that these subjects were more pragmatically accurate in their second language than in their first language. Even more surprisingly, this group of Korean learners were more accurate in English than a group of English native speakers in the pragmatic interpretation of the scalar term ‘some’. This is a highly unexpected result considering that linguistic competence, at whatever level, is always higher in L1 than in L2. Formisano (in press) analyzed the interpretation of the scalar ‘some’ in Italian learners of English (m.a. 27) both in their L1 and their L2, and found that the scalar term was always given its pragmatic interpretation. Through the analysis of the motivations provided by the participants to justify their answers, this study highlighted that even answers that could have been interpreted as a logical meaning attribution to ‘some’ (e.g. agreeing with the sentence ‘Some elephants have trunks’) were actually instantiation of scalar implicatures due to the conjuring up of alternative realities. The present research will adopt the same methodology and test younger individuals to check for the emergence of a developmental factor in implicature understanding (see Chierchia *et al.* 2004, Noveck 2001, Papafragou and Musolino 2003, among others) and, also, to verify whether a more pragmatically oriented testing methodology will foster scalar implicature drawing in children and adolescents. Two groups of Italian learners of English will participate in the study: children with an age range of 9-11 and adolescents with an age range of 12-14. The control group will be constituted by two other groups of Italian native speakers (matched for age and sex) tested in their L1. Participants will be tested on their comprehension of the term ‘some’ in English (and in Italian for the control group) through the administration of a test. The test is a Power Point™ presentation with a total of 40 slides testing comprehension of the scalar term ‘some’. The 40 slides are divided as follows: 8 sentences with a pragmatically infelicitous ‘some’, 8 sentences with a felicitous ‘some’, 8 sentences with a true ‘all’, 8 sentences with a false ‘all’, 4 absurd sentences with ‘some’, and 4 absurd sentences with ‘all’. The sentences are written on the slides and, in half of the cases, are accompanied by a picture to provide a context for sentence interpretation (not for the absurd sentences). Subjects will be asked to say whether they agree or not with what the sentence states, and to motivate their answer. In the case of sentences with no picture, they will be asked to make reference to world knowledge in typical contexts or to refer to the common sense of the words. Results of the two groups will be compared and analyzed to verify the pragmatic (over logical) meaning attribution to ‘some’ and, also, to check for the emergence of a developmental factor in the pragmatic processing of the sentences. The expectation is that providing subjects with a context for word interpretation or instructing them to make reference to typical world knowledge will foster the pragmatic interpretation of the scalar ‘some’ in children/adolescents as well as it did in adults.

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Complexity in the acquisition of relative clauses: Evidence from school-age Chinese-Italian bilingual children

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Key words: relative clauses, bilingual, comprehension pattern

Introduction. Relative clauses (henceforth RCs) are often considered as representations of complexity in child language. It has been well-established that object RCs are harder to comprehend than subject RCs by monolingual children (see Hu 2014, and reference in), and the asymmetry has been confirmed in head-final RCs such as Chinese RCs (see (1)) and in head-initial RCs such as Italian RCs (see (2)). By contrast, there are not many studies on bilingual children's acquisition of RCs (see Kidd et al. 2014, and reference in). In the current study, we investigate Chinese-Italian bilingual children's comprehension of RCs, which has not been examined yet. The aims of this study were the following: first, to test whether the subject/object asymmetry found in previous research on monolingual children would also obtain in school-age bilingual children, and to see what extent this asymmetry emerges in the course of development; second, to examine whether the comprehension pattern of bilingual children is identical to that of their monolingual peers and if not, to show their difference; third, to investigate how specific properties of two languages influence bilingual children's acquisition of RCs.

Method. A total of 48 Chinese-Italian speaking children, 64 Chinese-speaking children, and 41 Italian-speaking children were tested. They were aged from 6 to 9, and were further divided into a younger (6;0-7;11) and an older (8;0-9;11) group. All the bilingual children received systematic exposure to Italian no later than the age of 4 years. We examined the comprehension of Chinese RCs (1) and Italian RCs (2) by means of a character-sentence matching task; the answer was judged correct if the correct character was pointed at, and the others were coded as Errors with different labels (e.g., reversal error); for each sentence type, there were 8 experimental sentences.

- (1) a. Na yi-ge shi da xiaogou de xiaomao? (subject RCs)
which one-CL is hit dog DE cat
'Which one is the cat that hits the dog?'
b. Na yi-ge shi qingwa da de laoshu? (object RCs)
which one-CL is frog hit DE child
'Which one is the mouse that the frog hits?'
- (2) a. Fammi vedere le tartarughe che rincorrono la gallina. (subject RCs)
show me the turtle-pl that chase-pl the hen-sg
'Show me the turtles that chase the hen.'
b. Fammi vedere i leoni che il cavallo rincorre. (object RCs with a preverbal subject)
show me the lion-pl that the horse-sg chase-sg
c. Fammi vedere i leoni che rincorre il cavallo. (object RCs with a postverbal subject)
show me the lion-pl that chase-sg the horse-sg
'Show me the lions that the horse chases.'

Results. We used mixed-effects models for the analyses relying on the R environment (Bates et al., 2012). There are four findings. First, subject RCs were significantly more accurate than object RCs in both languages (all $p < .001$), in line with the findings from their Chinese and Italian monolingual peers. Second, although they show the same asymmetry, their performance on all sentence type was much poorer than their monolingual peers' (all $p < .001$) and the course of development was not identical. Specifically, the accuracy rates of comprehending Italian object RCs with a postverbal object increased as Italian monolingual children grew up, but not so in bilingual children ($p < .001$).

Third, bilingual children had difficulty in comprehending Chinese subject RCs, but not Italian subject RCs. There is a significant difference between two sentence types in bilingual younger age group ($p < .05$), but not in bilingual older age group. Fourth, the distribution of error types in the two groups was similar to their monolingual peers, but differed in two languages, e.g., the most common error in Chinese RCs was the ‘agent’ interpretation error, contrary to the ‘reverse’ error in Italian RCs.

Discussion. The findings of our study shed new light on the comprehension of Chinese and Italian RCs. We found that both bilingual and monolingual children, regardless of whether RCs are head-final (i.e., Chinese RCs) or head-initial (i.e., Italian RCs), showed more difficulty in comprehending object RCs than in subject RCs. Such a subject/object asymmetry can be explained by the Relativized Minimality approach expressed in terms of features (Friedmann et al. 2009; Guasti et al., 2012; Hu, 2014). We also showed that the competence of RC comprehension requires more years of exposure to be completely acquired by bilingual children and object RCs with a postverbal subject are particularly taxing for bilingual children. We propose that learning two languages may slow down the acquisition of each language in some circumstances for structures that are different in the two languages. In addition, we observed the influence of the language-specific properties, namely, the difficulty of Chinese subject RCs and the different error types in two languages. We conjure that when children have not mastered the modifying nature of the RC, they failed in reanalyzing the structure and accordingly, they chose the character depending on the cue of the word order. This study also reveals that Chinese RCs may be more complex than Italian RCs, as shown by the case of subject RCs.

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Data Analysis. The classification scheme used for the analysis of the data in this study is based on the categories developed by Blum-Kulka et al. (1989) in the “Cross Cultural Speech Act Realization Project” and Trosborg (1995). More specifically, the analysis focused on the mitigating function of lexical and syntactic modifiers and that of external supportive moves in socially similar situations and examines whether the two language groups use combinations of internal/external modifications in the same way and to the same extent.

Results. The general results of this study are in line with those yielded in previous studies revealing that the English learners, when compared to the English native speakers, displayed an underuse of lexical and syntactic downgraders (internal modifications). More specifically, the range of downgrading devices used by the learners was much narrower than that of the native speakers, evidencing a restricted pragma-linguistic repertoire. Moreover, the group of English learners showed a significant preference for external modifications (Supportive moves). The same pragma-linguistic behavior was observed in the Italian speakers’ responses in which, the directness of the request speech act was softened by “verbose” supportive moves. As a consequence, the English learners’ tendency to employ a larger number of external modifications producing more elaborate requests might be regarded as a specific deviation from native English speakers’ general pragmatic behavior, due to the effect of certain pragmatic conventions in Italian according to which requests are generally performed in a more verbose way.

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Language System in German-English Bilinguals. A study on placement verbs

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Keywords: placement verbs, convergence, German-English

The question of how language is stored in the mind has been of interest to linguists for a long time. Since the majority of the world's population is bilingual, answering how language systems are stored in the mind becomes increasingly fascinating. This presentation aims to shed light on the nature of language systems, by analysing placement verbs in German-English bilinguals. The study presented is based on Alferink & Gullberg's (2014) work, who had investigated this matter in French-Dutch bilinguals. French provides its speakers with mostly generic placement verbs such as *mettre* (to put) and *poser* (to place) whereas in Dutch it is obligatory to decide between the semantically specific *leggen* (to lay) and *zetten* (to set/stand), whose usage depend on the positioning of an object. Their study found evidence of a general merged language system. Neither language allows speakers to become more specific or generic, respectively; looking at German-English bilinguals in this respect is highly relevant. Although English language uses the generic placement verbs *put* and *place* frequently, it also possesses the low-frequency cognates *lay* and *set/stand*. Conversely, German uses the semantically more specific verbs *legen* (lay) and *stellen* (set/stand) more frequently than generic ones such as *platzieren* (to place) and *geben* (to place). The experiment sets out to investigate how German dominant bilinguals realise *legen* and *stellen* in English. Along the lines with Alferink & Gullberg's (2014) outcome it was predicted that language-specific features would be omitted, primarily resulting in a more general system in German. Following the processing of the data (repeated measures ANOVA), no evidence for a merged system was found within the sample, thus contradicting one of the initial hypotheses. It is concluded that bilinguals' conceptual systems may develop differently, depending on whether a second language is acquired earlier or later in life.

Quantized Second Language Acquisition: electrophysiological and behavioral cues of L2 developmental discontinuity in adulthood

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The Discontinuity Hypothesis (DH). I present the embryonic stage of a L2 developmental hypothesis. The DH¹ is based on the interpretation of ERP responses and behavioral data in longitudinal studies where subjects act as their own experimental controls over time. The DH proposes that Second Language Acquisition (SLA) of morphosyntax in adulthood is not piecemeal because it abides by the law of discontinuous dispersion/accumulation of energy in nature, which is a *quantized* process featuring coefficient values. An adult L2 learner's morphosyntactic competence is made of a superposition of two representation/processing coefficients. These are Statistical Learning (SL) and Grammatical Learning (GL). SL and GL work as multiplicative factors on developmental variables (any learnable morphosyntactic items). SL is learning by chunks. It is a bottom-up, frequency-driven process based on learners' early and lifelong sensitivity to forward and backward transition probabilities among adjacent and nonadjacent words in a sequence. GL is learning by abstract features (gender, number, aspect, tense etc.) working as labels²³ that learners attach to statistically significant (but up to that point) still unheaded, *concatenations* of words. A discontinuous *quantum leap* in SLA occurs when SL and the brain structures that support it are superposed by GL and its representational/processing mechanisms. At this point, statistical representations in a learner's competence geminate and have a grammatical counterpart. A steady-state condition is achieved when learners can process the same things twice (statistically and grammatically) switching in real time between coefficients – like native speakers do¹⁴⁻¹⁷ – depending on factors such as the degree of entropy of learned items²¹⁻²² individual attitude and environmental variables.

Distinctive feature of the DH. The DH is alternative to stage-models of “interlanguage” and of “stages/order of acquisition” which entail the idea that targetlike forms gradually substitute learners' errors. The DH proposes instead that both correct and incorrect forms are initially the result of a statistical pre-treatment of the L2 input by learners. Statistical forms (shallowly processed²⁵ chunks, formulas and constructions) and their grammatical counterparts are *entangled* in a learner's competence: a grammatical, targetlike item and its many possible statistical counterparts interact in ways such that one cannot be described independently from the other. A *quantum state* of a learners' morphosyntactic competence can indeed be described only as a whole (statistical and grammatical).

Electrophysiological cues. Longitudinal ERP studies²⁻¹⁰ in the last ten years have shown that at low proficiency levels, the L2 processing of morphosyntactic features (such as agreement in the VP) only involves N400 components, which are often coupled with the declarative memory system and with associative, statistical learning¹⁸⁻¹⁹. As L2 proficiency increases, the processing of the same features involves P600s and sometimes even LANs. The electrophysiological shift between N400-P600 ERP components has been often assumed to mirror the passage from a learners' capacity of detecting statistically-based patterns in the input to the capacity of inducing productive rules. Recent findings¹¹⁻¹³ have shown instead that both very advanced learners and native speakers may remain either N400 or P600 dominant (as to the violation of the same morphosyntactic rule), opening up to

the possibility that also a near-native competence encompasses a dual-route processing mechanism alternating SL and GL under different circumstances.

Behavioral cues: advanced regression models (e.g. ISIE and VNC²⁰), when applied to the study of large longitudinal learner corpora, have revealed that the acquisition of a given grammatical feature may be preceded by phase in which only its statistical counterparts (targetlike and non targetlike *chunks*) are used. Regression analysis applied to relatively short time-series²⁴ (time-series reported in SLA studies are often shorter than those of neuroscience or biology studies) shows that some parametrically unrelated features of L2 morphosyntax are acquired almost simultaneously and within a very short time.

Developmental predictions: (a) There are parts of the L2 grammar (dubbed "noncombinatorial") – those involving *internal Merge* and external interface phenomena – that are less likely to be learned by adults because their computation cannot be supported by backward and forward transition probabilities; (b) When discontinuity occurs, L2 processing direction becomes head-driven and top-down²⁶, rather than jumpy (like when it is driven only by transitional probabilities and by a learners' lexical knowledge). **A flaw in explanatory adequacy:** the issue of learners' *evaluation metric* is not addressed in the DH, so the crucial question of why learners eventually choose the targetlike grammatical form rather than its statistical counterpart has not been addressed properly so far. Suggestions from the audience would be welcome.

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Modal verbs in L2 Italian of English speakers: grammaticalization, lexicalization and polysemy copying

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Modal verbs, and modality in general, are well represented in grammaticalization studies. However, grammaticalization of modal means has been studied mainly in a diachronic perspective. This study investigates if some instances of linguistic development in the acquisition of Italian as a second language might be considered as a phenomenon of grammaticalization and discusses at what extent language change might parallel second language learning processes. Giacalone Ramat (1992: 300) observes some cases in learner Italian where lexical elements develop into new grammatical tools, unavailable in standard Italian. She mentions the shift of the adverbs *sempre* ‘always’ to aspectual marker of continuity and *forse* ‘perhaps’ to epistemic marker. This study illustrates some cases in the domain of root modality, where some verbal constructions in the interlanguage develop deontic meanings, non-existent in the target language. The data are drawn from a learner corpus created *ad hoc* in order to investigate how English-speaking learners acquire modality in Italian. The examples (1)-(3) show the deviant uses, where an Italian native speaker would have employed the modal verb *dovere* ‘must/have to/need to’.

- (1) ...ma non **hai andare** al ginnasio
(lit.) ‘but you do not have to go to the gym’
- (2) ...**non vuole dare** il suo figlio cattivo *stimulation*
(lit.) ‘you do not want to give bas stimulation to your son’
- (3) Amica, **hai bisogno** di diventare (...) meno grasso
(lit.) ‘My friend, you need to become thinner’

Learners at a high level of competence abandon the deviant modal uses of the constructions *avere* ‘to own/to have’+ infinitive (ex. 1), *non volere* ‘do not want’ + infinitive (ex. 1) and *avere bisogno di* ‘to need/to require/have need to’ + infinitive (ex. 3). If we consider the development of the interlanguage independent from the L1, we might regard at these examples as cases of grammaticalization or lexicalization. However, it is reasonable to assume that we are facing what Heine and Kuteva (2005) indicate as ‘polysemy copying’. In fact, similarly to languages in contact, there are cases of grammatical transfer in L2 where an analysis in terms of polysemy copying (or grammatical calquing) provides the most plausible hypothesis. The corpus offers also positive examples where we assist to actual grammaticalization/lexicalization processes. The data show that in epistemically modalized contexts root modal verbs may gradually acquire epistemic meaning, at advanced stages of the interlanguage development. The most typical epistemic contexts in the corpus are represented by lexical expression such as *io penso* ‘I think’ (ex. 4) or adverbs like *forse* ‘perhaps’ and *probabilmente* ‘probably’.

- (4) se lui ha un cane sul metro, **penso** che (...) **deve essere** un cane di servizio
‘if he have a dog on the metro, I think that it must be a service dog’

Similar contexts can be found in the Pavia corpus (ex. 5):

- (5) +++ io **penso** queo che sono: a:l u(l)timo acuni **possono scendere** a / a li at(r)i + possono ghiridare fuori pere: chied(e)re aiuto

‘I think that those who are at the last (floor), some of them can come down, the others can shout out to ask for help’

In Functional Discourse Grammar terms (Hengeveld & Mackenzie 2008), the most favourable contexts are those where the modal verb at the layer of the State-of-Affairs description (event-oriented modality) combines with an expression of subjective evaluation at the layer of the Propositional Content (subjective epistemic modality), with a scope over the State-of-Affairs. These types of utterances are crucial for observing the development of epistemic meanings, because they could replicate the shift from root to epistemic, well documented in the history of modal verbs (for ex. in Goossens (1982) and in Traugott (1989)). In the corpus this shift is gradual, first observed in advanced-intermediate speakers and the first context-independent uses of epistemic modal verbs are found at the C1 level. The same process can also be observed in learners whose first language has no polysemic modal verbs, but separate tools to express radical and epistemic modalities. These facts confirm the hypothesis that we are not dealing with polysemy copying, but with true instances of grammaticalization.

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Child L2 learning and Specific Language Impairment: superficially similar but linguistically different.

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It is known that bilingual or early second language (EL2) speakers, both children and adults, perform more poorly than monolinguals in some specific language domains, such as vocabulary, lexical access and morphosyntax (Bialystok 2008, 2010, Gollan and Kroll, 2001, Serratrice et al. 2004, Sorace 2011). The attested presence of lexical and morphosyntactic difficulties in bilingual and EL2 children may induce to draw a parallel with children suffering from Specific Language Impairment (SLI) who typically exhibit deficits in the lexical and in the morphosyntactic domain.

The presence of these similarities between bilingual and SLI children can have an impact on the identification of SLI in L2 children, resulting in both the over-diagnosing and the under-diagnosing of the impairment. This difficulty is mainly due to the absence of diagnostic tools expressly designed for the identification of language impairments in bilinguals/EL2 learners and to the limited normative data concerning the trajectory of EL2 acquisition (Bedore & Peña 2008). One way to address the problem is to examine the proficiency of bilingual/EL2 children in those areas that are vulnerable for Italian children with SLI, namely the production of direct object clitic pronouns and the repetition of nonwords (Casalini et al. 2007, Dispaldro et al. 2011, Leonard et al. 2013). The aim of our study is to provide further insights in this discussion, analyzing the performance of EL2 children in these two areas, which are considered two of the most sensitive clinical markers for SLI in Italian (Bortolini et al. 2002, 2006, Arosio et al. 2014). An experimental protocol was administered to 120 preschool Italian EL2 children coming from three different L1 (Albanian, Arabic, Romanian), the three more representative language communities in Trentino and a control group of 40 age-matched monolingual Italian children. All bilingual children had at least one year exposure to Italian; detailed information about their exposure to Italian were collected administering a version of the questionnaire Utrecht Bilingual Language Exposure Calculator (Unsworth et al. 2012) adapted to Italian. In order to guarantee a homogeneous measure of their nonverbal cognitive ability, all participants were tested in the standardized Raven's Coloured Progressive Matrices test (Raven et al. 1998); subjects who scored 1.5 SD below the mean score for their age were excluded from the sample. The protocol administered to the children consisted of a nonword repetition task (Cornoldi et al. 2009) and a sentence production task to elicit clitic pronouns. As reported in the literature, Italian SLI children are severely impaired in both tasks. Results show that, similarly to SLI children, EL2 learners underperform compared to their monolingual peers in the production of clitic pronouns, although they show a different error pattern: the most frequent error displayed by EL2 children is the production of an incorrect clitic, which involves agreement errors, whereas SLI preschool children typically omit the pronoun. With respect to nonword repetition no significant differences have been found between monolingual and EL2 children. To conclude, our research reveals that EL2 children present a linguistic profile which is qualitatively and quantitatively different from that typically shown by SLI children both in clitic production and in nonword

repetition. This suggests that despite the superficial similarities it is possible to discriminate properly between the two populations.

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Multisensory integration effects in phonological acquisition of a foreign language

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Keywords: phonological acquisition, multisensory integration, perception of audio-visual stimuli, prosody, foreign language, spectrograms.

Introduction. The perception of spoken language is a complex phenomenon which involves different processing fields related to phonetics, phonological organization, lexical structure, morphological and syntactic verbal expression. In this composite process, phonetics plays a preliminary role in language learning, because the perception, the production and the size of acoustic-articulatory speech sounds are presented, in order of importance, even before any other analysis which presupposes an elaboration of meaning. In the context of acquisitional linguistics, the study of phonetic/phonological processes allows a better understanding of both the processes of production of speech sounds, and the mechanisms underlying the receipt and therefore the understanding of a foreign language in its various aspects (Archibald: 1995). This research aims to deepen the study of the processes underlying the learning of pronunciation by adults, particularly Chinese native speakers. Studies devoted to learning the phonology of a foreign language by adults highlight the typical mistakes and major phonetic obstacles, while it is not yet determined a unique way of teaching practice also applied to languages typologically distant from Italian (Rastelli: 2010). The present hypothesis consists in showing the improvement of perception and pronunciation by different sensory modalities (audio training of verbal stimuli with the addition of related video-labial: Miller & D'Esposito: 2005, Markham 1997; Dalton & Seidlhofer: 1995). Authors will also seek to put light on the cognitive processes underlying the phonetic productions in Italian language belong to beginners adult learners in relation to such stimuli. The study will: a) evaluate the accuracy of the reproductions related to the construction's parameters of the stimuli; b) compare the numerical value resulted from the evaluation made by teachers of Italian L2 and phoneticians; c) analyze and categorize the types of errors of accuracy (James 1998), committed by subjects according to their mother tongue; d) recognize the measure of latency in preparation for the phonetic re-production of the Chinese learner. Authors will finally calculate the correlation between the spectrogram of the native speaker and those of subjects, analyzed with the program Praat (Boersman & Weenink, Institute of Phonetics Sciences of the University of Amsterdam, 2011). **Method.** The first phase of the research presents the development of a list of meaningless words created taking into account the following parameters: length of the words, syllabic complexity, presence of difficult phonemes in eterosillabica or tautosillabica position, presence of labial phones (b, p, f, v, m), pronounced with an articulatory gesture visible from the outside. These phones, where present, were placed in the initial position, median and final word, in coexistence with geminate consonants, vibrant, liquid, and consonant eterosillabici and tautosillabici clusters. Furthermore, according to the literature produced on creating nonsense words as similar as possible to those semantically full(Christiansen: 2011), a representative of Italian alternation consonant / vowel, more than that vowel / consonant has been elected. Vowels are equally distributed in the different positions, except for 'u' that was not used in final position, as in Italian words ending with this letter are very rare and have a functional role.

Finally, the different possible interactions between these parameters led to the establishment of a provisional tripartite complexity index, used in the pre-trial order to present to the subject batteries of stimulus with homogeneous complexity. The stimuli were presented in random order in three different sessions (ie 108 stimuli x 3 sessions), each of which is characterized by a presentation format: only audio(SA), audio-ortography (SAO), audio-labial (SAL). **Stimuli and procedure.** A list of 108 stimuli (36 non-words x 3 levels of difficulty) has been reproduced in three different presentation formats. For session SA (audio stimulus) and SAL (audio-labial stimulus), author made use of the collaboration of a native Italian speaker, recording voice and articulation gestures when she was reading non-words. The 108 stimuli were presented in random order in three different sessions (respectively 108 stimuli x SA session, SAO session and SAL session). The order of the three sessions was counterbalanced between subjects to avoid effects related to the habit. The tests were administered by a laptop (display 17 ") and headphones (impedance range and Frequency = 32). Each trial began with the presentation on the screen of a warning signal (a green flashing cross, duration = 1 sec), which was followed by the stimulus. Just finished, a special visual signal (a red circle, duration = 6 sec) invited subjects to reproduce verbally stimulus directing the voice to the microphone of the same laptop. The reproduction time was recorded for a window of 6 sec (ie, the duration of the red circle), after which a new test began. **Participants.** a) 10 Chinese subjects of both sexes, aged between 18 and 29 years, enrolled in the Italian language courses at University for Foreigners of Perugia, with a level of expertise of Italian Elementary (A1 / A2 CEFR). b) control group of 10 Italian subjects of both sexes, aged between 18 and 29 years, enrolled in the graduate program ITAS (Italian for Foreigners), the University for Foreigners of Perugia. **Data analysis.** The data collected have been exported to WAV. audio files (3 files for each subject, corresponding to each session) distributed to three different evaluators, with an evaluation table. The table has four columns: stimulus, session1 score, session2 score, session3 score. The numbers awarded ranged from 1 (minimum accuracy) to 5 (highest accuracy). Importantly, the evaluators were not aware of the relationship between session and modality of administration (SA, SAO or SAL). **Preliminary results.** The first data, especially emerged from records of 70% of the control group, showed that the syllable length is not the maximum parameter of difficulty for a stimulus; the knowledge of other foreign languages influenced, for some people, the memory of some phonological stimuli (eg pido, breca recalls Spanish words); the vision of the articulated gestures especially helps in maintaining the positions of articulatory phones placed in initial position, while the only audio authorizes the visual distraction from the screen and a reproduction entirely subjective regarding the prosodic rhythm. A first analysis of the data on the group of Chinese showed at the same time a significant improvement in the ability of articulation of some phones and facilitating a consistent development in the articulation of difficult phones, such as vibrant and liquid, especially in eterosyllabic position (eg pilernuca, cadarmota). The vision of lip movements seems to be a valuable help for all groups of subjects tested in the reproduction of doubles phones. The spelling represents a positive anchor for memory. Authors expect that subsequent analysis (including that on spectrograms), may give further confirmation of the evidence emerged so far.

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