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Il bambino dà alla maestra un libro: cross-linguistic structural priming of dative sentences in Italian-English late bilinguals.

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Abstract

The aim of this study is to analyse Italian late bilinguals of English participants' performance in a task employing the cross-linguistic structural priming method from English to Italian. Twenty Italian native speakers with high proficiency (B2-C1) of English participated in the study as volunteers. Moreover, the experiment was administered to five bilinguals, namely two English-Italian heritage bilinguals, one English-Italian balanced bilingual, one English learner of Italian as foreign language and one English-Italian bilingual. The aim of this pilot was to analyse their productions under priming condition and see whether their results are similar to Italian late bilinguals of English participants or not.

The task was composed of 28 English priming sentences associated to 28 target pictures and 28 Italian verbs. Each priming sentence was introduced by an English filler sentence. The priming sentences were transitive and dative sentences, object of the study. There were two types of dative sentences, namely prepositional dative (PD) and double-object (DO) and they were presented in two conditions: Verb overlap between prime and target sentences and no verb overlap. In the task, participants first read a filler and a prime sentence and finally described a picture with a sentence in Italian. In the description, participants were asked to use the verb indicated below the picture. The results showed stronger priming with transitive and PD sentences. The English DO constructions does not prime for a similar construction in Italian because it is not available in the Italian grammar. Therefore, results were provided by English-Italian bilinguals.

1. Introduction

The present study aims to investigate the performance of Italian students late bilinguals of English on dative constructions through a cross-linguistic structural priming task from English to Italian. Most participants were students of Ca' Foscari University of Venice with a high proficiency level of English.

As mentioned above, the participants of this study were all late bilinguals of English. In psycholinguistics, the term bilingualism and bilingual can be defined as "the regular use of two (or more) languages, and bilinguals are those people who need and use two (or more) languages in their everyday lives" (Grosjean 1992, p.51). In the current study, participants are all bilinguals but late in the sense that they started learning English after birth. As a matter of fact, the data collected from a questionnaire showed that on average participants started learning English at six years old (SD:1,52). The task was also administered to five English-Italian bilinguals in order to see whether their productions were in line with those of Italian participants.

A common question in psycholinguistics is whether bilinguals share structures in the two languages or not. As Hartsuiker et al. (2004) explained, two languages can have equivalent constructions, as passive sentences in English (1a) and in Spanish (1b), or present different constructions, as active sentences in Spanish , in which speakers add an *a* before the indirect object, and English, in which speakers does not add any *a* before the direct object.

1. a   The truck is being chased by the taxi.
   b   El camión es perseguido por el taxi.

Hartsuiker, Pickering & Veltkamp (2004)

According to the literature, in psycholinguistics there are two main accounts which concern this topic, namely the separate syntax account and the shared syntax account[1].

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[1] See Chapter 1.

For the separate syntax account, Hartsuiker et al. (2004) explained that bilinguals have separate-syntax representations for the same structure. Hence, according to this account, an equivalent structure is repeated twice. The are some main reasons behind the separate-syntax account configuration: One reason is that even though these structures appear similar, they are distinct constructions. Therefore, if a bilingual mostly use only one language, for this account the processing might be more efficient. Moreover, having the structures separated between two languages allows bilingual speakers to focus on one language and thus to consider only the structures of the current spoken language. On the contrary, in the shared syntax account the structures of two languages are not doubled. If a structure in one language is not the fully equivalent in the other language, the extra linguistic information can be store. Thus, one question this study is trying to answer is whether late bilinguals of English shared or not datives structures with Italian.

The choice behind dative constructions lie in difference between English and Italian. Datives sentences, as Giusti and Iovino (2016) explained, contain a verb which belongs to the class of the so-called ditransitive verbs. These verbs have the features of being trivalent. This means that in order to saturate their valency, they need three arguments, namely the agent assigned to the subject, the theme assigned to the object and the beneficiary assigned to a third argument. Italian and English have an equivalent structure for one of the two dative constructions investigated in the study, namely the prepositional dative (PD) (1). The other one, the double-object (DO) construction (2), is not available in the Italian grammar.

(1) *The girl is giving the flower to the teacher.*

La bambina sta dando il fiore alla maestra.

(2) *The girl is giving the teacher the flower.*

*La bambina sta dando la maestra il fiore.

As the Italian sentence in (2) shows, the double-object construction in Italian is ungrammatical. What this study is expected to show is a production of an Italian "marked" dative sentences which is a PD with a different word order (3).

(3) The granny is giving the girl the ice-cream.

    La nonna sta dando alla bambina il gelato.

The expected sentence is a PD with a different word order, namely the beneficiary that instead of being after the direct object, is located before the object (PP-NP). Thus, this issue regards the word order. Various studies on cross-linguistic priming found some issues regarding word order. For instance, in a cross-linguistic priming study from English to German, Loebell and Bock (2003) found priming with PO/DO but not with active/passive sentences because English and German do not share the same constituent order for the passive sentences. This issue gives rise to another question, namely if people are able to produce ungrammatical sentences when primed with structures which are not available in their grammar. For this aspect, Ivanova et al. (2012) study provided relevant results. They administered four experiments in which participants received priming with grammatical and ungrammatical sentences. Results showed that participants produced ungrammatical utterances after being exposed to ungrammatical sentences. These results are consisted with a lexically-driven persistence account according to which in order to produce ungrammatical sentences, previous exposure to the same ungrammatical structure is needed. This question will be explained in detail in chapter two. Therefore, this issue might be observed in this study with DO sentence from English to Italian.

Another aspect that this study wants to analyse is the effect of cognate words. As Desmet and Duyck (2007) explained, cognates words are terms with equivalent meaning and form, fully or partial, in two languages. For instance, the English verb *to offer* and the Italian verb *offrire* are cognates words. Interesting studies on cross-linguistic priming have analysed the effect of cognate words. Cai et al (2011) study illustrated that there was smaller priming when the verbs from priming and target were cognates words. The explanation they gave was that this happens because the lemma representation of cognates is separated and thus the link to combinatorial nodes is also separate. Bernolet, Hartsuiker and Pickering (2012) study from Dutch to English showed different results. They observed that there was a larger priming effect with

cognate words. They concluded that during the priming with cognates words a boost effect might be attested. Thus, this study analysed whether the priming with cognate words will be smaller, as in Cai et al. (2011), or larger (Bernolet et al., 2012).

As already mentioned, sometimes boost effects can be attested. Lexical boost effects (Pickering and Branigan, 1998) are proved when priming and target utterances contains the same lexicon. This also happens with cross-linguistic priming. A study by Schoonbaert, Hartsuiker and Pickering (2005) demonstrated that the priming between Dutch and English was stronger when there was verb overlap. This study, also, analyse a verb overlap condition to attest the manifestation of lexical boost effect.

To summarize, this is a list of research questions this thesis tries to answer:

1. Italian students descriptions after being primed with a DO sentences;
2. Will priming with cognate words contain errors?
3. Will lexical boost effect be attested in verb overlap conditions?

In addition, these are the expected results:

1. Participants, after receiving DO priming, will produce an Italian description with a marked linear order;
2. Participants will produce errors in presence of cognate words;
3. Lexical boost effect will be attested in verb overlap conditions;

This thesis is structured as followed: chapter one is dedicated to cross-linguistic structural priming studies and findings; chapter two will illustrate the pilot experiment we administered before the final one; chapter three will display the final experiment and chapter four will provide a detailed discussion of the entire work.

Chapter 2: Cross-linguistic structural priming: main studies and accounts

In psycholinguistics, the phenomenon of cross-linguistic structural priming brought evidence that priming also occurs between languages (Jacob et al., 2017). The present study will employ this method to analyse the performance of Italian-English late bilinguals on dative sentences. The following sections provide a general explanation of the aspects that this study is going to investigate. Thus, section 2.1 explains the share syntax model; section 2.2 is about the influence of word order in cross-linguistic structural priming studies; section 2.3 considers cognate words in cross-linguistic structural priming and section 2.4 illustrates the phenomenon of lexical boost effect.

2.1 Two models for the representation of syntax

One question that psycholinguistics was trying to answer is whether bilinguals share syntactic information between languages or not. Hartsuiker et al. (2004) study investigated the question with Spanish-English bilinguals. The experiment was a dialogue game in which participants described cards to other participants. The results showed that participants, primed with a Spanish sentence, were inclined to employ the same structure for describe the card in English. Thus, the experiment showed that syntactic information is shared between English and Spanish. This finding brought the experimenters to develop the share-syntax model.

In order to develop this model, Hartsuiker et al. (2004) started from Pickering and Branigan (1998)'s model of lexical representation. According to this model, lemma nodes are directly connected both to combinatorial nodes (where combinatorial information is encoded) and to other nodes (e.g. nodes that specify a grammatical category). In addition, lemmas contain shared combinatorial nodes. To give an example, the verb *to give* can be used in two forms: active and passive. Thus, it is associated respectively with two combinatorial nodes, active and passive. Therefore, if *give* and passive are selected, the speaker will produce a passive sentence which contains the verb *give*.

From a bilingual point of view, lemmas for two languages are both linked to the identical category node and combinatorial nodes. Consequently, their activation triggers the activation of the grammatical structure which is valid for both languages. The things that lead participants to choose a language among the other are the selection of lexical items added in the structure. Figure 1, from Hartsuiker et al. (2004), illustrates the share-syntax model developed from Spanish-English bilinguals. The figure shows the lexical entries for the English verbs *hit* and *chase* together with their Spanish equivalents *golpear* and *perseguir.* These represent the lemma nodes which are linked to the equivalent combinatorial nodes (e.g., Active and Passive). Moreover, the lemma nodes for *hit* and its translation *golpear* and for *chase* and *perseguir* are connected to the respective semantic node, thus one for the first couple of verbs and one for the second.

This model provides an answer to the question whether bilinguals share or not syntactic information between language. Hartsuiker et al. (2004) used a cross-linguistic structural priming paradigm to come at this conclusion. However, in Loebell and Bock (2003) study, cross-linguistic structural priming was not attested in passives from English to German and vice versa. The explanation they gave was that these results regard the different word order of the two languages for passive sentences. In German the by-phrase is followed by the participle whereas English passives are the opposite. Thus, their result was influence by the difference in the word order of the investigated languages. Next section provides more details about the word order and its influence in cross-linguistic structural priming.
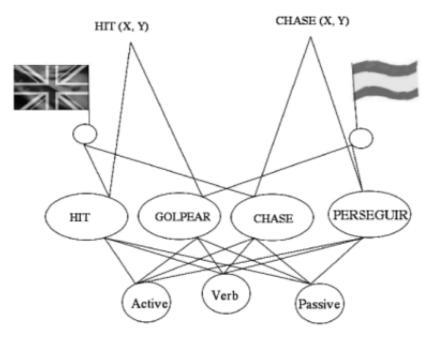
Fig. 2. Example of lexical entries for "to chase" and "to hit" in an integrated (shared lexicon, shared syntax) account of bilingual language representation. Each lemma node (e.g., HIT, GOLPEAR) is connected to a conceptual node (HIT (X, Y)), a category node (Verb), combinatorial nodes (Active and Passive), and a language node (indicated with a British or Spanish flag).

Figure 1 (Hartsuiker et al., 2004)

2.2 The influence of word order in cross-linguistic structural priming

As mentioned above, it is possible that cross-linguistic structural priming does not occur. In order to explain this phenomenon, psycholinguistics accounts on two different views: the *constituent order account* and *combinatorial node account*. A reference to the *constituent order account* is the study made by Loebell and Bock (2003) in which they did not find priming in passives vs. actives between English and German. The reason behind this finding was the different word order of passive sentences between the two languages. Thus, according to this account, cross-linguistic priming occurs only when the structures of the two languages shared the same word order.

For the combinatorial node account, the study made by Hartsuiker et al. (2004) was taken into consideration. They found cross-linguistic structural priming between

English and German with PD and DO structures. According to their finding, the combinatorial node of one structure are linked to all the verbs allowed in the structure. A relevant feature of combinatorial nodes is that they are not language-specific, thus in bilinguals they are valid for both languages. As concerned cross-linguistic structural priming, Jacob et al. (2017) explained that if a speaker receives a prime with a DO German sentence containing the verb *schicken* (to send), the lemma *schicken* will be activated. Moreover, the PD combinatorial node will be connected to this lemma. If the speaker was asked to elicit an English sentence with a ditransitive verb, both PD and DO structures could be used. Therefore, the respective combinatorial nodes are active. As regards Loebell and Bock (2003)'s study, this account assumes that shared combinatorial nodes are present only if the two languages are similar. In other terms, if a structure is different between the languages, there will not be shared combinatorial nodes. Thus, between English and German there is not a shared combinatorial node for passives because there is a difference in the sentences word order. However, it is worth to highlight that similarity plays an important role on the sharing of combinatorial nodes between languages. This raise the question whether similarity is enough to explain the occurrence of cross-linguistic priming between languages or not.

According to the results of two experiment between English and German, Jacob et al. (2017) developed a new account based on hierarchical tree structures. In other terms, they considered the level of embedding together with similarity to be the cause of cross-linguistic priming. One aspect they investigated was priming with PD from German to English. They find cross-linguistic priming in PD not only for the similarity but also for the level of embedding. Both languages shared the same hierarchical tree structure which is activated by the prime sentence and remains active during the production of the target sentence. Figure 2 illustrates the hierarchical tree representations of German PD prime and English target sentences.
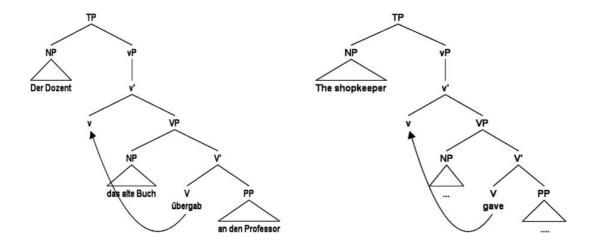
The reported accounts explain the influence of word order in cross-linguistic structural priming. Concluding, in order to attest priming between languages, the respective structures might be as similar as possible. Moreover, if they shared the same hierarchical structure, priming effects will be stronger. Next section concerns another aspect that influence the performance of speakers in cross-linguistic priming task, namely the effect of cognate words.

2.3 The effect of cognate words

As mentioned in the introduction, an interesting aspect that bilinguals share are cognate words. To give a definition, "cognates are words that mean the same thing in both languages and also have full or partial form overlap across languages" (Desmet and Duyck, 2007: 170). Cognate words were used in different cross-linguistic priming studies in order to see their effect between languages. The most relevant studies with cognates are the one by Cai et al. (2011) and Bernolet, Hartsuiker and Pickering (2012).

Starting from Cai et al. (2011), they tested with two experiments, one within languages and one between languages, Mandarin and Cantonese bilinguals. These two languages are very similar. In their experiments, they used verb overlap condition and cognate verbs. The results for the verb overlap condition showed a stronger lexical boost effect whereas with cognates the effect was weaker. They came at the conclusion

that the difference between the two conditions is attributed to the representation of lemmas levels. In other terms, for Cai et al. (2011: 441) "[…] the repeated use of cognate verbs involved activating distinct lemma representations […]" whereas, with verb overlap repetition the same lemma representation is activated. Thus, Cai et al. (2011) were for a separate lemma model. According to this model, bilinguals have different lemmas for the translation-equivalent words.

On the contrary, Bernolet, Hartsuiker and Pickering (2012) collected different results. They investigated Dutch-English bilinguals with different level of L2 proficiency. Their experiments contained cognate words because their aim was to verify whether grammatical encoding is influenced by phonological encoding. The results they obtained were different from the ones from Cai et al. (2011). Their data showed that priming was stronger with cognates in prime and target sentences. Bernolet et al. (2012) explained that during the production of a target sentence with cognates, there are shared phonemes that activate the lemma of the equivalent cognate of the other language. Consequently, also the combinatorial node in which the cognate lemma occurred becomes active and the lexical boost effect can be attested. To give an example from Bernolet et al. (2012), if a speaker, after receiving a priming with a Dutch DO sentence, elicits a target sentence with the cognate word *fork*, the lemma for the equivalent cognate in the other language (e.g., *vork*) becomes active together with the priming structure in which it occurred (e.g., *DO*). Thus, the target sentence produced by the speaker will contain a DO construction and hence the lexical boost effect occurred.

The studies reported above came to different conclusions: one is for a separate lemma account and the other for a share lemma account. Moreover, the lexical boost effect has been mentioned several times. The next section describes in detail what this effect is concerned.

2.4 A definition for lexical boost effects

An important question in psycholinguistics regards "[…] the nature of syntactic representations in bilinguals […]" (Gámez and Vasilyeva, 2020: 92). As already mentioned, syntactic representation in bilinguals is shared rather than separated, and there are various studies that brought evidence on this fact.

In order to analyze this aspect, several studies as the one made by Bernolet et al. (2013) and Schoonbaert, Hartsuiker and Pickering (2005) employed a cross-linguistic priming paradigm adding lexical overlap between prime and target sentences as one of the conditions. The results showed a stronger priming when prime and target sentences share lexical items. Lexical overlap condition leads to the so-called lexical boost effects (Pickering and Branigan, 1998). According to this, priming is stronger when prime and target sentences share the same verb or noun. To give an example from Hartsuiker and Bernolet (2015), if a speaker has to elicit a target sentence using *to give* as verb and the prime sentence was a DO dative with the verb *to give*, the tendency to employ the prime structure is higher if the required verb is the same. To explain this finding, Pickering and Branigan (1998) elaborated a new model of syntactic representation based on the one ideated by Roelofs (1992). The lexicalist model of syntactic representation there are two levels: One for lexical concepts and one for lemmas. Lemmas are abstract lexical representations and they are connected to the corresponding concepts and word forms. Moreover, they have connection with lexical-syntactic information and to combinatorial nodes. As the previous example explained, if a speaker processed a dative DO sentence with the verb *to give*, the lemma for *give* together with the DO node activated. Consequently, if the speaker's next utterance required the employ of a dative structure, the choice of DO among PD is stronger due to the previous activation of DO combinatorial node. Thus, there is a boosted link that "re-activated" the DO node. Pickering and Branigan's (1998) model is depicted in Figure 3.
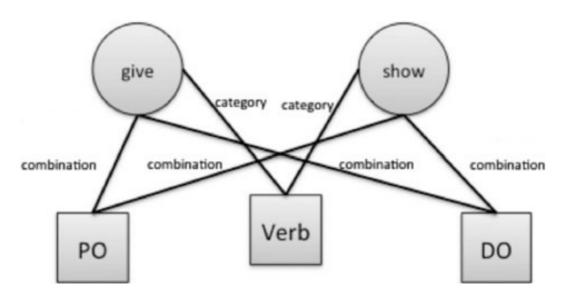
Figure 3 (Hartsuiker and Bernolet, 2015)

Summarizing, lexical boost effects not might be attended in structural priming with monolinguals (Pickering and Branigan,1998), but also in cross-linguistic structural priming paradigm with lexical overlap condition (Schoonbaert et al.,2007).

This chapter gives a general explanation of what this study is going to investigate. The next chapter is dedicated to the current study.

Chapter 3: **The study**

This chapter is fully dedicated to the current study. First, it will be a section for the pilot study followed by a part in which the experiment is illustrated.

3.1 Method

This section illustrates in detail the final administered experiment. As explained before, this experiment employed a cross-linguistic structural priming method from English to Italian.

3.1.1 Participants

For this experiment, twenty students of Ca' Foscari University volunteers as participants. They were recruited[2] online through social networks, namely Ca' Foscari's Facebook groups, Facebook personal accounts and Instagram. Before the experiment, they received an email with an ID number to use in the questionnaire and in the experiment. Then, they received an email with a link to the questionnaire. The questionnaire was created in Qualtrics, an online platform for surveys. The questionnaire was sent in both languages, English and Italian. It is important for people who do not feel at ease with English to complete the questionnaire in Italian. Thus, both versions were sent.

Table 1

Participants' overview.

Age mean (SD)	First Language	Second Language	English CEFR level
25,6 (4,18)	Italian	English	B2-C1

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[2] See Appendix E for the recruitment text.

Table 2

Mean and (SD) of participants' responses on age of exposure to English, use of English and self-rate language proficiency level.

Age of exposure to English	Use of English (1= never - 7=always)	Language proficiency (1=not well at all - 7=very well)
6 (1.52)	5.5 (0.70)	5.6 (0.81)

3.1.2 Design

The design was of the 2x2 type. There were two independent variables: The first was the type of construction, namely DO or PD, whereas the second was verb overlap condition. Moreover, the experiment was within subject, hence every participant underwent the same experimental condition.

3.1.3 Items

In the experiment there were 28 priming items associated to 28 target pictures[3]. Among the 28 items, 16 were transitive sentences, 8 actives and 8 passives, and 12 datives sentences. The analysis of dative occurred under two different circumstances: First, there were 6 DO dative and 6 PD dative sentences; Second, between the priming sentence and the target there was verb overlap for 6 sentences and no verb overlap for the other 6. The rest of the items were 28 intransitive sentences which were used as fillers.

In order to balance the experiment, the items were presented in four different lists. The first list was list1 A. List 1B was the contrary of list 1A, namely it contained the same items but in the reverse order. List 2A was the contrary of list 1A, not in the order of items but in the conditions. For instance, if the first sentence of List 1A is an active sentence, the first sentence of List 2A will be a passive. Thus, the sentences were modified in order to contain the opposite condition. Finally, list 2B had the contrary order of list 2A.

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[3] See Appendix A for the items list.

3.1.4 Procedure

The experiment was administered online, through the Pavlovia platform. The procedure was easy. First, participants, after completing the consent form on Qualtrics, were sent to Pavlovia to do the experiment. The instructions of the task were easy. Participants were asked to read aloud a filler and a prime sentence. Then they saw a picture which they had to describe with a sentence in Italian. They had to use the verb suggested under the picture. They had thirty seconds to type in the description.

As suggested after the piloting experiment, a practice trial was added in order to understand how the experiment works. Figure 3 displays a trial. The sentence *Two men are arguing* is the filler whereas *The man is throwing the dog a bone* is the prime.

Two men are arguing · The man is throwing the dog a bone ‑‑‑‑‑‑‑‑‑‑‑‑‑‑ il ragazzo lancia alla ‑‑‑‑‑‑‑‑‑‑‑‑‑‑

Figure 4: trial

3.1.5 Pilot experiment

Before testing the subjects with the final experiment, a pilot experiment was administered to four subjects in order to try it and see if something need to be changed.

Participants' comments from the pilot phase of the experiment allowed to fix some issues in the layout of the task. First, a guided demo part was added before the experiment. Participants who did first the pilot task read the instructions, but they were confused and did not understand how the task works. Thus, adding a demo helped them to complete the task correctly. Moreover, under the target picture a black line

was insert in order to highlight where to type the description. Other participants suggested to explicit the time they have for each trial. Hence, the duration of each item was added in the instruction section. Filler and prime sentences last on the screen for 7 seconds whereas to describe the target picture participants had 20 seconds. After modified the task, the pilot was repeated with other participants. The comments on the last version were positive and the task was done without complications.

3.1.6 Scoring

For the scoring, five aspects were considered. They were marked with 0 when the aspect was not present and with 1 when it was present. The considered aspects were: NP NP (DO), NP PP (PD), other transitive (4), PP NP (marked dative) (5) and ungrammatical sentences.

(1) *Il gelataio vende il gelato.*

    The ice cream man is selling the ice cream.

(2) *Il gelataio vende al bambino un gelato.*

    The ice cream man is selling the boy an ice cream.

The next section shows participants' results.

3.2 Results

The results[4] show a high tendency to produce Italian PD sentences after being prime with an English DO sentence. The reason behind this is the absence of DO structures in Italian.

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[4] See Appendix G for participants' productions.

Table 3

Proportions and (S.D.) of dative sentences produced after priming with DO and PD sentences.

Participants' productions

	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Prime					
DO	0 (0)	0.9 (0.30)	0.06 (0.23)	0.02 (0.16)	0.02 (0.13)
PD	0 (0)	0.89 (0.31)	0.08 (0.28)	0.01 (0.09)	0.02 (0.13)

All 120 DO prime and 120 PD prime were used for this analysis.

Moreover, presence of lexical boost effects was attested.

Table 4

Proportions and (S.D.) of dative sentences produced after priming with verb overlap and no verb overlap.

Participants' productions

	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Prime					
Different verb	0 (0)	0.98 (0.13)	0 (0)	0.01 (0.09)	0.01 (0.09)
Same verb	0 (0)	0.8 (0.4)	0.14 (0.35)	0.03 (0.16)	0.03 (0.16)

All 120 DO prime and 120 PD prime were used for this analysis.

3.2.1 Proportion of prepositional datives

As mentioned above, participants produced a high percentage of PD not only after receiving a PD prime (0.89) but also after a DO prime (0.9).

Overall, participants do not produce DO sentences. An explanation for this result concerns the Italian grammar. As Giusti and Lovino (2016) explained, Italian shared PD structure with English but not DO structure. That is why participants production of DO sentences was absent. However, few participants produced dative sentences with a marked linear order. These sentences were considered as marked datives. Next section provides a focused on these structures.

3.2.2 Proportion of marked datives in Italian

Italian language has the feature of having a flexible constituent order. This means that, beyond its unmarked order SVO, it accepts other constituent orders, the so-called marked orders (Valentini, 2018). One of the expected results was the production of marked dative sentences when participants were primed with DO. Three participants produced a marked dative sentence after a DO prime (6).

(3) *La donna mostra al ragazzo un abito.*

The woman shows the boy a dress.

Example (6) shows one of the sentences that two participants produced. This was considered a marked dative, namely a PD sentence in which the direct object is after the prepositional phrase (PP NP) and thus the order is similar to the English DO one.

A possible explanation that lead to the production of these sentences lies in the proficiency level. Participants that produced marked dative sentences have a high proficiency level of English thus the priming with DO sentences might have been strong enough to influence the production of a marked sentence with a similar constituent order. Nonetheless, these data are not enough to make a statement.

In order to make this analysis clearer, the experiment was administered to five English-Italian bilinguals that have a high proficiency in both languages. Next section illustrates these results.

3.3 English-Italian bilinguals

As mentioned in the abstract and introduction the task was also sent to five English-Italian bilinguals. Two were English-Italian heritage bilinguals and the other three were respectively a balanced bilingual, an English learner of Italian as a foreign language and an English-Italian bilingual. The choice behind this population is to see whether they behave the same as Italian participants in the production of dative sentences and to confirm the hypothesis behind the production of marked datives.

Table 5

Age mean (S.D.)	First Language	Second Language	Italian CEFR level
24.2 (4.32)	English	Italian	B1-C1

Almost all participants were English dominant and have Italian as second language. They rated themselves with CEFR levels from B1 to C1. None of them considered himself or herself as fully competent in Italian (C2).

Table 6

Mean and (SD) of participants' responses on age of exposure to Italian, use of Italian and self-rate language proficiency level.

Age of exposure to Italian	Use of Italian (1= never - 7=always)	Language proficiency (1=not well at all - 7=very well)
3 (6.16)	3.20 (0.60)	5.05 (0.54)

As the Italian late bilinguals of English did, also the English dominant participants did the questionnaire and table 7 reports the main responses. Almost all of them were exposed to Italian at age of 0, one at 14. Their use of Italian is not too frequent because the results are below the average (4). Their language proficiency is high.

These participants reported heterogeneous results; thus, their data will be analysed separately in the next sections. [5]

3.3.1 English-Italian heritage bilinguals' results

This section illustrates the results from the tasks made by two English-Italian heritage bilinguals.

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[5] See Appendix G for participants' productions.

Table 7

Proportions and (S.D.) of dative sentences produced by English-Italian heritage bilinguals after priming with DO and PD sentences.

	Participants' productions				
	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Prime					
DO	0 (0)	0.4 (0.51)	0.4 (0.51)	0 (0)	0.2 (0.4)
PD	0 (0)	0.6 (0.51)	0.2 (0.45)	0 (0)	0.2 (0.4)

All 24 items were considered in this analysis.

The table shows that prepositional object sentences were prime. Interestedly, they produced sentences containing clitic pronouns (7a; 7b):

(4) a. La donna gli offre un ombrellone.

   b. Lui le da un martello.

These sentences were considered as transitive sentences (Other Transitive) but they could also be considered as marked datives due to the presence of a dative clitic pronoun. The production of these sentences could be considered as a strategy used to replicate the double-object constituents order. Due to the fact that they are English dominants speakers, these participants could not know that Italian is not a language with a rigid constituents order, as Valentini (2018) explained, and hence that it allows marked structures. Other interesting sentences are the one in (8a; 8b):

(5) a. Lei da un fiore alla sua maestra.

   b. Lui da un martello alla donna.

Sentences in (8) begins with the subject pronouns. This is typical of English language but not of Italian. Italian monolingual participants have never begun a sentence with a subject pronoun. Thus, it could be a strategy applied in order to avoid using the specific Italian lexicon.

Table 8

Proportions and (S.D.) of dative sentences produced by English- Italian heritage bilinguals after priming with verb overlap and no verb overlap.

Participants' productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Different verb	0 (0)	0.6 (0.51)	0.3 (0.5)	0 (0)	0.1 (0.2)
Same verb	0 (0)	0.4 (0.51)	0.3 (0.5)	0 (0)	0.3 (0.4)

All 24 items were considered in this analysis.

The table shows the presence of lexical boost effects (Pickering and Branigan, 1998).

When there was no verb overlap, participants produced more dative sentences.

3.3.2 English-Italian balanced bilingual's results

This section reports the results by an English-Italian balanced bilingual.

Table 9

Proportions and (S.D.) of dative sentences produced by an English-Italian balanced bilingual after priming with DO and PD sentences.

Participant's productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
DO	0 (0)	0.5 (0.54)	0.2 (0.4)	0.3(0.52)	0 (0)
PD	0 (0)	0.7 (0.52)	0 (0)	0.3(0.52)	0 (0)

All 12 items were considered in this analysis.

Table 9 displays that prepositional dative sentences were primed. Moreover, there were transitive sentences as well as a good number of marked dative sentences (9).

(6) a. La signora mostra al ragazzo un vestito

b. Il ragazzo da alla ragazza il martello

c. Il signore offre alla signora una torta

d. Il ragazzo da ad un altro ragazzo una banana

The sentences reported in (9) were considered as marked dative. As mention in the sections above, these sentences present the double-object order, which is unmarked in Italian, but without removing the preposition. It is important to highlight that two of them contain the verb "dare" which has a high frequency among the experimental items.

Table 10

Proportions and (S.D.) of dative sentences produced by an English-Italian balanced bilingual after priming with verb overlap and no verb overlap.

Participant's productions					
Prime	**NP NP (DO)**	**NP PP (PD)**	**Other Transitive**	**PP NP (Marked dative)**	**Ungrammatical**
Different verb	0 (0)	0.8 (0.4)	0 (0)	0.2 (0.4)	0 (0)
Same verb	0 (0)	0.3 (0.51)	0.2 (0.4)	0.5 (0.54)	0 (0)

All 12 items were considered in this analysis.

Table 10 shows the presence of lexical boost effects (Pickering and Branigan, 1998). Prepositional dative sentences were mostly produced when there was no verb overlap whereas marked dative sentences where mainly produced in presence of verb overlap.

Participants of the second turn of the experiment reported interesting results like the English-Italian balanced bilingual who produced an important number of marked dative sentences as expected from people who have a high proficiency level in both languages. One participant does not make the difference; thus, it will be interesting to administer the experiment to more English-Italian balanced bilinguals.

3.3.3 English learner of Italian as a foreign language's results

This section illustrates table 11 and table 12 with the results of an English learner of Italian as a foreign language.

Table 11

Proportions and (S.D.) of dative sentences produced by an Italian foreign language learner after priming with DO and PD sentences.

Participant's productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
DO	0 (0)	0.5 (0.54)	0 (0)	0 (0)	0.5 (0.54)
PD	0 (0)	0.6 (0.51)	0.2 (0.4)	0 (0)	0.2 (0.4)

All 12 items were considered in this analysis.

The results reported in table 11 are similar to the ones from Italian monolingual. There are prepositional dative sentences and some ungrammatical sentences, mainly of them are incomplete.

Table 12

Proportions and (S.D.) of dative sentences produced by an Italian foreign language learner after priming with verb overlap and no verb overlap.

Participant's productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Different verb	0 (0)	0.8 (0.4)	0 (0)	0 (0)	0.2 (0.4)
Same verb	0 (0)	0.3 (0.51)	0.2 (0.4)	0 (0)	0.5 (0.54)

All 12 items were considered in this analysis.

As other participants' results, table 12 shows the presence of lexical boost effects. Participant produced more prepositional dative sentences in absence of verb overlap.

3.3.4 English-Italian bilingual's results

This last section regards an English-Italian bilingual who results can be considered similar to the ones from English-Italian heritage bilinguals.

Table 13

Proportions and (S.D.) of dative sentences produced by an English-Italian bilingual after priming with DO and PD sentences.

Participant's productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
DO	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)
PD	0 (0)	0.2 (0.40)	0.5 (0.54)	0 (0)	0.3 (0.51)

All 12 items were considered in this analysis.

As table 13 displays, there are a relevant number of transitive sentences (10).

(7) a. Il ragazzo sta vendendo un gelato.

    b. Il bambino sta mostrando il suo disegno.

    c. Il ragazzo sta lanciando una palla.

Table 14

Proportions and (S.D.) of dative sentences produced by an English- Italian bilinguals after priming with verb overlap and no verb overlap.

Participant's productions

Prime	NP NP (DO)	NP PP (PD)	Other Transitive	PP NP (Marked dative)	Ungrammatical
Different verb	0 (0)	0.2 (0.4)	0.8 (0.4)	0 (0)	0 (0)
Same verb	0 (0)	0 (0)	0.7 (0.51)	0 (0)	0.3 (0.51)

All 12 items were considered in this analysis.

Table 14 illustrates the presence of lexical boost effects (Pickering and Branigan).

Prepositional datives were produced when there was no verb overlap.

The following chapter will report the general discussion.

Chapter 4: General discussion

Performances of twenty Italian late bilingual of English people were examined in a cross-linguistic priming task from English to Italian. The structures involved in the task were dative sentences, namely prepositional dative and double-object dative. The aim was to analyse their picture description after receiving priming with PD and DO sentences. The results showed a high number of prepositional dative target sentences and no double-object sentences. This was an expected result because double-object construction is not available in the Italian grammar (Giusti and Iovino, 2016). These results are aligned with Loebell and Bock (2003) study. In their cross-linguistic study, they did not find priming for passives sentences from English to German. The reason behind this result concerned the different word order between these two languages. They concluded proposing the *constituent order account* according to which priming occurs only when the structures of the languages shared the same word order. The case presented in the current study reflected this account because the double-object order is not available in the Italian grammar.

Therefore, another result was predicted, namely the production of marked dative sentences. These structures were produced but they not provided significant results to make a statement. Participants who elicited marked dative sentences have a high proficient level of English and this could lead them to produce this kind of structure. Thus, it is possible to say that some attrition phenomenon can be attested but, as mentioned above, the sample number and the number of marked dative sentences produced are not enough to take conclusions. More investigation is needed.

Overall, these results are aligned with the share syntax model account (Hartsuiker et al., 2004). A high number of prepositional dative sentences were produced after receiving a PD prime (0.89).

Lexical boost effects (Pickering and Branigan, 1998) were attested. Participants employed in their productions the same verb presented in the priming sentences.

Finally, the last aspect that this study wanted to check was whether participants produced errors with cognate words. The results showed absence of errors with

cognate word; thus, they are aligned with Bernolet, Hartsuiker and Pickering (2012) study. In their cross-linguistic priming study with Dutch-English bilinguals they found no error with cognate words.

Summarizing, results reflected the shared syntax model proposed by Hartsuiker et al. (2004). The number of prepositional dative sentences produced after a prepositional dative prime is high showing that English and Italian shared the same syntax for prepositional dative structures. The results also showed lexical boost effects, as in Pickering and Branigan's (1998) study. These results are consistent with Ivanova et al. (2012) study because participants did not produce ungrammatical sentences. Thus, in order to produce ungrammatical sentences prior exposure to ungrammatical structures is needed.

Bilinguals participants were five, two heritage bilinguals, a balanced bilingual, an English learner of Italian as a foreign language as well as an English-Italian bilingual. Their productions were interesting and heterogeneous. Heritage bilinguals produced sentences with dative clitics pronouns as a strategy employed in order to replicate the double object order. These sentences were considered as transitive sentences, but more investigation is needed to classify them. Another aspect that it is worth to considered is the production of sentences with subject pronouns. Again, it is possible that they used it as a strategy in order to avoid the use of the Italian specific lexicon, thus a lexical warm-up could be helpful for further replication of this experiment. Interesting productions came from balanced bilingual's results. Marked dative sentences were attested meaning that the participant knows the possibility provided by the Italian grammar to have marked constituent orders. Finally, the English learner of Italian as a foreign language and the English-Italian bilingual's results were, apart from prepositional datives, transitive sentences. Overall, priming can be attested also in bilingual participants who also displayed interesting results concluding that more investigation with more participants is needed in order to collect significant results.

5. Conclusion

The aim of this thesis is to analyse the production of Italians late bilinguals of English students in a cross-linguistic priming task. The structures taken under analysis were dative sentences, namely prepositional datives and double-objects datives. Moreover, other aspects were considered for instance the verb overlap in order to verify the possible manifestation of lexical boost effects.

The results showed no production of double-object datives due to the lack of structure in the Italian grammar. Participants produced a high number of prepositional datives, few transitive sentences and marked datives. To give an explanation about the production of marked datives after a double-object priming, proficiency level was considered. A possible hypothesis is that high proficiency level participants were really influenced by the priming sentences and thus they were bias to produce a prepositional dative sentence with a marked constituent order, comparable to the double-object order. Moreover, no one produced ungrammatical sentences. This aspect is consistent with the lexically-driven persistence account as in the Ivanova et al. (2012) study.

To verify this hypothesis, the task was administered to five English- Italian bilinguals, namely two heritage bilinguals, a balanced-bilingual, an English learner of Italian as a foreign language and an English-Italian bilingual. Their productions reported heterogeneous results which encourage to further investigations because the sample was small and not significant.

This study presents some limitations as the number of participants, which was not sufficiently high, the number of dative sentences which should be bigger. A possible follow-up should have a more heterogeneous sample, also including English dominant participants.

Appendix A

List of items

Transitive items (active):

1. The boat is pulling the woman.

2. The stove is cooking the pasta.

3. The net is trapping the girl.

4. The water is filling the glass.

5. The truck is dumping the dirt.

6. The pumpkin is scaring the man.

7. The blanket is hiding the baby.

8. The spoon is stirring the milk.

Transitive items (passive):

1. The ball is bounced by the racket.

2. The girl is dropped by the plane.

3. The presents are carried by the wagon.

4. The baby is rocked by the cradle.

5. The woman is pricked by the needle.

6. The chair is covered by the blanket.

7. The stripe is painted by the brush.

Dative items (DO):

1. The teacher is showing the student a book.

2. The man is selling the other man a car.

3. The girl is throwing the boy a box.

4. The man is handing the other man a ticket.

5. The woman is giving the boy a cookie.

6.   The man is giving the girl a pencil.

Dative items (PD):

1.   The artist is showing a painting to the people.

2.   The man is throwing a bone to the dog.

3.   The woman is selling a ring to the man.

4.   The waiter is offering tea to the woman.

5.   The man is offering a handkerchief to the woman.

6.   The woman is handing the salt to the man.

Filler items:

1.   The boy is playing with the train.

2.   The shoes are on the chair.

3.   There is a vase on the table.

4.   The girl is brushing her hair.

5.   The briefcase is on the couch.

6.   Two men are arguing.

7.   The man is climbing.

8.   It's snowing.

9.   The cat and the dog are under the table.

10.   There is an umbrella on the table.

11.   A woman is mowing the lawn.

12.   The car is inside the garage.

13.   There is a girl with big shoes.

14.   The kites are flying.

15.   The cellist is playing.

16.   The girl sits on the skateboard.

17.   The man is hiking.

18. The woman is sailing.

19. The plane is landing.

20. The men are shaking hands.

21. The cabinet is above the stove.

22. The girl is asleep on the floor.

23. The ship is sailing on the ocean.

24. The people are at the museum.

25. The boat is sailing under the bridge.

26. The man is talking on the phone.

27. Trees are bending in the wind.

28. The helicopter is landing.

Appendix B

Pilot experiment: consent form

La ricercatrice è autorizzata ad archiviare per la durata del progetto di ricerca tutti i dati personali (compresi quelli acquisiti preliminarmente e quelli raccolti tramite il questionario sul background linguistico e socio-demografico) in formato cartaceo e digitale.

La ricercatrice è autorizzata a conservare tutti i dati personali (compresi quelli acquisiti preliminarmente e quelli raccolti tramite il questionario sul *background* linguistico e socio-demografico) in formato cartaceo e digitale dopo la conclusione del progetto di ricerca.

La ricercatrice è autorizzata a condividere con altri/e ricercatori/trici per soli scopi scientifici tutti i dati personali (compresi quelli acquisiti preliminarmente e quelli raccolti tramite il questionario sul *background* linguistico e socio-demografico) in formato cartaceo e digitale dopo la conclusione del progetto di ricerca.

Appendix C

Language Profile Questionnaire

We would like to ask you to help us by answering the following questions concerning your language history, use, attitudes, and proficiency. This survey was created to better understand the profiles of L2 learners of English. The survey consists of 30 questions and will take less than 10 minutes to complete. The Language Profile Questionnaire was created referencing the Bilingual Language Profile: English-French created by Birdsong and colleagues at the University of Texas at Austin and the Language History Questionnaire created by the Language Acquisition Research Center at Hunter College CUNY.

This is not a test, so there are no right or wrong answers. Please answer every question to the best of your ability. You will have an opportunity to clarify and explain any of your responses regarding questions that were unclear or difficult to answer. Thank you very much for your help.

I. Biographical Information

Name _____ Date

_____   Age_____   Male   /   Female   /   Other

Current place of residence: city/state_____ country_____

Country of origin: _____

If your country of origin is different than your country of residence, when did you move to the country where you currently live? _____

Highest level of formal education (your current or most recent education level, even if you have not finished the degree).

Graduate school (PhD/MD/JD)

Graduate school (MA/MS)

College (BA/BS)

High School

Middle School

Other (specify): _____

II. Language history *In this section, we would like you to answer some factual questions about your language history.*

1. Please list all the languages you know in order of dominance. If you are equally dominant in two languages, please pick an order for them.

1)

2)

3)

4)

2. At what age did you **start learning** English? Since birth 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

3. At what age did you **start to feel comfortable** using English? As early as I 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+ not yet | can't remember

4. How many years of **English language classes** have you had (pre-school through university)? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

5. How many years of **classes (grammar, history, math, etc.)** have you had in English (pre-school through university)?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

6. Please indicate the age at which you **started using English** in each of the following environments.

At home	With friends	At school	At work	Language learning software	Online games	Social media

7. If you have lived or travelled in countries where you used English for **three or more months**, please indicate the name of the country, the length of your stay, and how often you used English for each country, using the following scale.

Never	Rarely	Sometimes	Regularly	Often	Usually	Always
1	2	3	4	5	6	7

*You may have been to the country on multiple occasions, each for a different length of time. Add all the trips together.

Country	Length of stay* [month(s)]	Frequency of use (1-7)

8. How much time have you spent in a **family or home environment** where English was spoken? Indicate months or years _____

9. How much time have you spent in a **work or school environment** where English is spoken? Indicate months or years _____

III. Language use *In this section, we would like you to answer some questions about your language use.* 10. In an average week, how many hours do you use English **with friends**?

Indicate hours _____

11. In an average week, how many hours do you use English **with family**? Indicate hours _____

12. In an average week, how many hours do you use English **at school/work**? Indicate hours _____

13. Please estimate the number of hours per week that you are **exposed to English.** Indicate hours_____

14. How often do you use English to speak to the following groups of people? Please enter the number in the table according to the scale below. *Include significant others

in this category if you did not include them as family members (e.g., married partners).

**Include anyone in the work environment in this category (e.g., if you are a teacher, include students as coworkers).

	Never	Rarely	Sometimes	Regularly	Often	Usually	Always
	1	2	3	4	5	6	7

	Scale 1-7
Family members Friends* Classmates and Coworkers** People on the Internet	

15. How often do you use English for the following activities? Please enter the number in the table according to the scale below.

	Never	Rarely	Sometimes	Regularly	Often	Usually	Always
	1	2	3	4	5	6	7

	Scale 1-7
Thinking Talking to yourself Expressing Emotion* Dreaming Arithmetic** Remembering numbers***	

16. How often do you spend engaged in the following activities in English?

	Never	Rarely	Sometimes	Regularly	Often	Usually	Always
	1	2	3	4	5	6	7

	Scale 1-7

Watching television	
Listening to radio or podcasts	
Reading for fun	
Reading for school/work	
Writing emails	
Writing for school/work	
Listening to music	

IV. Language proficiency *In this section, we would like you to rate your language proficiency. 1=not well at all 7=very well*

17.a. How well do you **speak English**? 1 2 3 4 5 6 7

18. a. How well do you **understand English**? 1 2 3 4 5 6 7

19. a. How well do you **read English**? 1 2 3 4 5 6 7

20. a. How well do you **write English**? 1 2 3 4 5 6 7

21. If you have taken any **standardized language proficiency tests** (e.g., TOEFL, IELTS, PET), please write the name of each test and the score you received. If you do not remember the exact score, then indicate an "Approximate score" instead.

Test	Score	(Approximate score)	Date Taken

22. Using the CEFR, what would you **self-rate your level of English,** whether or not you have a certification?

A1 A2 B1 B2 C1 C2

V. Language attitudes *In this section, we would like you to respond to statements about language attitudes.*

1=disagree 7=agree

23. I feel like myself when I speak English. 1 2 3 4 5 6 7

24. I identify with an English-speaking culture. 1 2 3 4 5 6 7

25. It is important to me to use (or eventually use) English like a native speaker.

1 2 3 4 5 6 7

26. I want others to think I am a native speaker of English. 1 2 3 4 5 6 7

27. Please enter the language you feel the **most comfortable** in when listening, speaking, reading, and writing in each of the contexts listed below.

	Listening	Speaking	Reading	Writing
At home With friends At school At work On the Internet On social media				

28. Please rate your **language learning skill**. In other words, how good do you feel you are at learning new languages, relative to your friends or other people you know? Pick one.

Very Poor	Poor	Limited	Average	Good	Very Good
1	2	3	4	5	6

29. Please comment below to indicate any additional answers to any of the questions above that you feel better describe your language background or usage.

30. Please comment below to provide any other information about your language use.

Appendix D

Modulo per l'espressione del consenso informato:

Cross-linguistic investigation in L2 English learners

Il presente studio è condotto da Giulia Sfriso e Micol Zanaga, laureande magistrali in Scienze del Linguaggio presso il Dipartimento di Studi Linguistici e Culturali Comparati, dell'Università Ca' Foscari Venezia sotto la supervisione della prof.ssa Giulia Bencini.

Firmando questo modulo, esprimi il tuo consenso alla partecipazione allo studio e alle attività in esso incluse. Lo studio è rivolto a soggetti maggiorenni che conoscono la lingua inglese. Di interesse è la produzione di frasi dative e frasi passive. Prima dell'inizio dello studio, ti verrà chiesto di compilare un questionario demografico sul tuo profilo linguistico. Seguiranno due esperimenti della durata di circa 20 minuti in cui dovrai leggere delle frasi in inglese e descrivere le immagini seguenti con delle frasi in italiano. Ti verranno mostrati esempi prima dell'inizio dello studio.

Il tuo contributo a questo studio è volontario e potrai decidere di abbandonare lo studio in qualsiasi momento senza alcun tipo di conseguenza negativa. Esprimendo il tuo consenso, autorizzerai i ricercatori a conservare in formato digitale e a trattare in maniera confidenziale i dati personali acquisiti per tutta la durata del progetto di ricerca. Al fine di tutelare la privacy, tutti i dati raccolti non saranno mai riconducibili alla tua persona o ai tuoi dati personali, secondo quanto previsto da Codice etico e di comportamento dell'Università Ca' Foscari – Venezia, il Codice di deontologia e di buona condotta per i trattamenti dei dati personali per scopi statistici e scientifici, e il Codice in materia di protezione dei dati personali (Decreto legislativo 30 giugno 2003, n. 196). I risultati delle analisi dei dati in forma aggregata potranno essere pubblicati sotto forma di tesi, libri o articoli per riviste scientifiche.

Lo studio e i moduli che ti viene chiesto di compilare hanno ricevuto l'approvazione della Commissione Etica di Ateneo in data 05.02.2020, verbale n. 1/2020 (per ulteriori informazioni: commissione.etica@unive.it).

Per qualsiasi domanda relativa alle procedure della ricerca, ora o in futuro, puoi contattare:

Laureanda, **Giulia Sfriso**, 858181@stud.unive.it   Cell. 3483639430

Laureanda, **Micol Zanaga**, 854712@stud.unive.it   Cell. 3475560720

Relatrice, **prof.ssa Giulia Bencini**, giulia.bencini@unive.it

BemboLab, bembolab@unive.it.   Tel. 041/2345738 - 041/2345748

Appendix E

Recruitment Text

Ciao!

Siete interessati/e a sapere come funziona la mente bilingue?

Stiamo conducendo un esperimento cross-linguistico per il nostro progetto di laurea magistrale e cerchiamo partecipanti. Tutti i livelli di inglese sono benvenuti. Lo studio richiede circa 30 minuti.

Sareste così gentili da darci una mano?

Se volete partecipare, compilate il box che trovate al seguente link: https://bembolab.fra1.qualtrics.com/jfe/form/SV_bDT00qzax2ydDY9.

Grazie!

Appendix F

Italian-English bilinguals' productions

ID	List	Prime	Target Picture	Production
1027	2A	The teacher is showing a book to the student	show dress.bmp	la ragazza mostra ill il vestito al ragazzo
1027	2A	The artist is showing the people a painting	hand hammer.bmp	il ragazzo passada da il martello alla ragazza
1027	2A	The man is throwing the dog a bone	throw ball.bmp	il ragazzo lancia la palla alla ragazza
1027	2A	The man is selling a car to the other man	offer umbrella.bmp	la donna offre l'ombrello all'uomo
1027	2A	The woman is selling the man a ring	sell icecream.bmp	il gelataio vende il gelatoa gelato ad un uomo
1027	2A	The girl is throwing a box to the boy	give flower.bmp	la ragazza da un fiore all'insegnante
1027	2A	The server is offering the woman tea	throw keys.bmp	la donna lancia le chiavi all'uomo
1027	2A	The man is handing a ticket to the other man	hand passport.bmp	l'uomo passa il passaporto all'altro uomo
1027	2A	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo offre una tp torta all'altro um uomo
1027	2A	The woman is giving a cookie to the boy	show drawing.bmp	il ragazzo mostra il disegno al a papapostrophe papa'
1027	2A	The man is giving a pencil to the girl	give banana.bmp	il ragazzo da una banana all'altro ragazzo
1027	2A	The woman is handing the man the salt	sell baguette.bmp	la commessa vende il pane alla donna
1045	2B	The woman is handing the man the salt	sell baguette.bmp	La cigno signora sta vendendo il pane alla donna.
1045	2B	The man is giving a pencil to the girl	give banana.bmp	Il ragazzo con lam maglietta blu da ' una banana ala al suo amc amico.

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1045	2B	The woman is giving a cookie to the boy	show drawing.bmp	Il bambino mostra il disegno al papa'.
1045	2B	The man is offering the woman a handkerchief	offer cake.bmp	Il papaequal papa' offre la cena a nonan nonna e figlia..
1045	2B	The man is handing a ticket to the other man	hand passport.bmp	L'uomo passa la carta d'identitapostrophe all'altro uomo.
1045	2B	The server is offering the woman tea	throw keys.bmp	La ragazza lancia le chiavi al ragazo ragazzo.
1045	2B	The girl is throwing a box to the boy	give flower.bmp	La bambina da' un fiore all'insegnante.
1045	2B	The woman is selling the man a ring	sell icecream.bmp	Il gelataio vende un gelato al signore.
1045	2B	The man is selling a car to the other man	offer umbrella.bmp	La donna offre l'ombrello all'uomo.
1045	2B	The man is throwing the dog a bone	throw ball.bmp	L'uomo lancia la palla alla ragazza.
1045	2B	The artist is showing the people a painting	hand hammer.bmp	L'uomo da' il martello alla donna.
1045	2B	The teacher is showing a book to the student	show dress.bmp	La ragazza mostra un vestito al ragazzo.
1026	2A	The teacher is showing a book to the student	show dress.bmp	la ragazza sta mostrando unabito al fidanzato
1026	2A	The artist is showing the people a painting	hand hammer.bmp	il ragzzo sta dando un martello alla ragazza
1026	2A	The man is throwing the dog a bone	throw ball.bmp	il giocatore ha lanciato una pallina all'avversario
1026	2A	The man is selling a car to the other man	offer umbrella.bmp	la o donna sta offrendo un ombrello all'uomo
1026	2A	The woman is selling the man a ring	sell icecream.bmp	il gelataio sta vendendo un gelato
1026	2A	The girl is throwing a box to the boy	give flower.bmp	l'alunna sta dando un fiore alla maestra
1026	2A	The server is offering the woman tea	throw keys.bmp	la donna sta lanciando le chiavi all'uomo

1026	2A	The man is handing a ticket to the other man	hand passport.bmp	l'impiegato sta passando il passaportoal passeggero
1026	2A	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo offre una torta alle signore
1026	2A	The woman is giving a cookie to the boy	show drawing.bmp	il bambino mostra il disegnoal papapostrophe papa'
1026	2A	The man is giving a pencil to the girl	give banana.bmp	il ragazzo offre una banana all'amico
1026	2A	The woman is handing the man the salt	sell baguette.bmp	la panettiera vende del panealla signora
1052	2B	The woman is handing the man the salt	sell baguette.bmp	una donna vende il pane ad un'altra donna
1052	2B	The man is giving a pencil to the girl	give banana.bmp	un ragazzo da una banana a un altro ragazzo
1052	2B	The woman is giving a cookie to the boy	show drawing.bmp	il bambino mostra il disegno al papa'
1052	2B	The man is offering the woman a handkerchief	offer cake.bmp	un ragazzo offre del cibo a i suoi amici
1052	2B	The man is handing a ticket to the other man	hand passport.bmp	un uomo passa il documento a un altro uomo
1052	2B	The server is offering the woman tea	throw keys.bmp	la donna lancia le chiavi all'uomo
1052	2B	The girl is throwing a box to the boy	give flower.bmp	la bambina da un fiore al maestro
1052	2B	The woman is selling the man a ring	sell icecream.bmp	il gelataio vende il gelato
1052	2B	The man is selling a car to the other man	offer umbrella.bmp	la donna offre all'uomo il suo ombrello
1052	2B	The man is throwing the dog a bone	throw ball.bmp	un ragazzo lancia una palla al compagno di squadra
1052	2B	The artist is showing the people a painting	hand hammer.bmp	un ragazzo da un martello a un altro ragazzo
1052	2B	The teacher is showing a book to the student	show dress.bmp	un'amica mostra l'abito

1009	1A	The teacher is showing the student a book	show dress.bmp	la donna sta mostrandimostrando all'uomo un vestito
1009	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo sta dando il martello alla ragazza
1009	1A	The man is throwing a bone to the dog	throw ball.bmp	due persone si lanciano una palla
1009	1A	The man is selling the other man a car	offer umbrella.bmp	una donna offre un ombrello a un uomo
1009	1A	The woman is selling a ring to the man	sell icecream.bmp	il gelataio vende un gelato
1009	1A	The girl is throwing the boy a box	give flower.bmp	una ambi bambina d
1009	1A	The server is offering tea to the woman	throw keys.bmp	una donna lancia le chiavi a un uomo
1009	1A	The man is handing the other man a ticket	hand passport.bmp	un uomo passa il passaporto a un altro
1009	1A	The man is offering a handkerchief to the woman	offer cake.bmp	un uomo offre una torta a due donne
1009	1A	The woman is giving the boy a cookie	show drawing.bmp	un bambino mostra un disegno a un uomo
1009	1A	The man is giving the girl a pencil	give banana.bmp	un ragazzo da' una banana a un altro
1049	1A	The woman is handing the salt to the man	sell baguette.bmp	una donna vende una baguette a un'altra
1049	2A	The teacher is showing a book to the student	show dress.bmp	la ragazza sta mostrando il vestito al ragazzo
1049	2A	The artist is showing the people a painting	hand hammer.bmp	il ragazzo da' il martello alla ragazza
1049	2A	The man is throwing the dog a bone	throw ball.bmp	il ragazzo sta lanciando la palla alla ragazza
1049	2A	The man is selling a car to the other man	offer umbrella.bmp	la donna sta offe offrendo l'uombrello ombrello all'uomo
1049	2A	The woman is selling the man a ring	sell icecream.bmp	il gelataio sta vendendo un gelato all0all'uomo

1049	2A	The girl is throwing a box to the boy	give flower.bmp	the la bambina sta dando un fiore alla maestra
1049	2A	The server is offering the woman tea	throw keys.bmp	la donna sta lanciando le chiavi all'uomo
1049	2A	The man is handing a ticket to the other man	hand passport.bmp	l'uomo sta passando il passaporto all
1049	2A	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo offre la torta alle donne
1049	2A	The woman is giving a cookie to the boy	show drawing.bmp	il bambino sta mostrando il disegnoall'uomo
1049	2A	The man is giving a pencil to the girl	give banana.bmp	il bambino sa sta dando una banana all'altro
1049	2A	The woman is handing the man the salt	sell baguette.bmp	la donna sta vendendo del pane all'altra donna
1008	1A	The teacher is showing the student a book	show dress.bmp	la ragazza sta mostrando un vestito al ragazzo
1008	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo da' un attrezzo alla ragazza
1008	1A	The man is throwing a bone to the dog	throw ball.bmp	due ragazzi si lanciano la palla
1008	1A	The man is selling the other man a car	offer umbrella.bmp	la ragazza offre l'ocommabre l'ombrello al ragazzo
1008	1A	The woman is selling a ring to the man	sell icecream.bmp	l'uomo vende un gelato al ragazzo
1008	1A	The girl is throwing the boy a box	give flower.bmp	la bambina da' un fiore alla maestra
1008	1A	The server is offering tea to the woman	throw keys.bmp	la ragazza lancia le chiavi al ragazo
1008	1A	The man is handing the other man a ticket	hand passport.bmp	l'operatore passa il ticket al passeggero
1008	1A	The man is offering a handkerchief to the woman	offer cake.bmp	l'uomo offre una torta alle ragazze
1008	1A	The woman is giving the boy a cookie	show drawing.bmp	il bambino mostra un disegno al padre

1008	1A	The man is giving the girl a pencil	give banana.bmp	il ragazzo da' una banana all'amico
1008	1A	The woman is handing the salt to the man	sell baguette.bmp	la fornaia vende del pane alla cliente
1013	1A	The teacher is showing the student a book	show dress.bmp	la ragazza sta mostrando un abito
1013	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo sta dando il martello alla ragazza
1013	1A	The man is throwing a bone to the dog	throw ball.bmp	il giocatore ha lanciato la palla
1013	1A	The man is selling the other man a car	offer umbrella.bmp	la ragazza offre un ombrello a un passante
1013	1A	The woman is selling a ring to the man	sell icecream.bmp	il gelataio vende un gelato
1013	1A	The girl is throwing the boy a box	give flower.bmp	la studentessa da un fiore all'imn insegnante
1013	1A	The server is offering tea to the woman	throw keys.bmp	la ragazza lancia le chiavi al ragazzo
1013	1A	The man is handing the other man a ticket	hand passport.bmp	l'uomo passa la dogam
1013	1A	The man is offering a handkerchief to the woman	offer cake.bmp	l'uomo offre un qualcosa alla dona donna
1013	1A	The woman is giving the boy a cookie	show drawing.bmp	il bambino mostra il die disegno al genoti genitore
1013	1A	The man is giving the girl a pencil	give banana.bmp	il ragazzo s da una banana al suo amico
1013	1A	The woman is handing the salt to the man	sell baguette.bmp	la venditrice vende un qualcosa 8 alla donna
1024	1B	The woman is handing the salt to the man	sell baguette.bmp	leftla donna sta vendendo il pane all'altra donna
1024	1B	The man is giving the girl a pencil	give banana.bmp	il ragazzo sta dando una mbanana all'amico
1024	1B	The woman is giving the boy a cookie	show drawing.bmp	il ragazzo sta mostrando il disegno all'uomo

1024	1B	The man is offering a handkerchief to the woman	offer cake.bmp	l'uomo sta offrendo una torta alle amiche
1024	1B	The man is handing the other man a ticket	hand passport.bmp	l'uomo sta passando il passaporto all'altro uomo
1024	1B	The server is offering tea to the woman	throw keys.bmp	la donna sta lanciando le chiavi all'uomo
1024	1B	The girl is throwing the boy a box	give flower.bmp	la bambina sta dando un fiore all'insegnante
1024	1B	The woman is selling a ring to the man	sell icecream.bmp	l'uomo sta vendendo il gelato all'altro uomo
1024	1B	The man is selling the other man a car	offer umbrella.bmp	la donna sta offrendo un ombrello all'uomo
1024	1B	The man is throwing a bone to the dog	throw ball.bmp	il ragazzo sta lanciando la pallina all'altro ragazzo
1024	1B	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo sta dando il martello alla ragazza
1024	1B	The teacher is showing the student a book	show dress.bmp	la ragazza sta mostrando un abito al ragazzo
1034	2B	The woman is handing the man the salt	sell baguette.bmp	una donna vende il pane ad un'altra donna
1034	2B	The man is giving a pencil to the girl	give banana.bmp	il ragazzo da' la banana all'altro ragazzo
1034	2B	The woman is giving a cookie to the boy	show drawing.bmp	il bambino mostra il disegno all'uomo
1034	2B	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo offre la torta alle signore
1034	2B	The man is handing a ticket to the other man	hand passport.bmp	l'uomo passa il documento all'altro uomo
1034	2B	The server is offering the woman tea	throw keys.bmp	la donna lancia le chiavi all'uomo
1034	2B	The girl is throwing a box to the boy	give flower.bmp	la bambina da un fiore alla sua insegnante
1034	2B	The woman is selling the man a ring	sell icecream.bmp	il gelataio sta vendendo un gelato all'uomo

1034	2B	The man is selling a car to the other man	offer umbrella.bmp	la donne offre un ombrello all'uomo
1034	2B	The man is throwing the dog a bone	throw ball.bmp	il ragazzo lancia la palla all'amico
1034	2B	The artist is showing the people a painting	hand hammer.bmp	il ragazzo da' il martello alla ragazza
1034	2B	The teacher is showing a book to the student	show dress.bmp	la ragazza sta mostrando un abito al ragazzo
1025	2A	The teacher is showing a book to the student	show dress.bmp	rla donna mostra il vestito all'uomo
1025	2A	The artist is showing the people a painting	hand hammer.bmp	il ragazzo sta dando il martello allaragazza
1025	2A	The man is throwing the dog a bone	throw ball.bmp	l'uomo sta lanciandola pallian alla donna
1025	2A	The man is selling a car to the other man	offer umbrella.bmp	la donna sta offrendo l'ombrello all'uomo
1025	2A	The woman is selling the man a ring	sell icecream.bmp	l'uomo sta comprando un gelato
1025	2A	The girl is throwing a box to the boy	give flower.bmp	l'alunna st a dando un fiore all'insegnante
1025	2A	The server is offering the woman tea	throw keys.bmp	la donna sta lanciando all'uomo le chiavi
1025	2A	The man is handing a ticket to the other man	hand passport.bmp	l'uomo sta passando il passaporto all'altro uomo
1025	2A	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo sta offrendo la torta alla nonna
1025	2A	The woman is giving a cookie to the boy	show drawing.bmp	il bambinom sta mostrando il disegno al papa'
1025	2A	The man is giving a pencil to the girl	give banana.bmp	il ragazzo sta dando la banana all'altro rafazzo
1025	2A	The woman is handing the man the salt	sell baguette.bmp	la donna sta vendendo il pane all'altra donna
1030	2B	The woman is handing the man the salt	sell baguette.bmp	la signora sta vendendo il pane alla signora

1030	2B	The man is giving a pencil to the girl	give banana.bmp	il ragazzo con la maglia blu sta dando la banana al ragazzo con la maglia gialla
1030	2B	The woman is giving a cookie to the boy	show drawing.bmp	il ragazzo sta mostrando il disegno all'uomo
1030	2B	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo sta offrendo la torta ai due signori
1030	2B	The man is handing a ticket to the other man	hand passport.bmp	l'uomo passa il passaporto all'altro uomo
1030	2B	The server is offering the woman tea	throw keys.bmp	la donna lancia le chiavi all'uomo
1030	2B	The girl is throwing a box to the boy	give flower.bmp	la ragazza da' un fiore all'uomo
1030	2B	The woman is selling the man a ring	sell icecream.bmp	l'uomo sta vendendo il gelato all'uomo
1030	2B	The man is selling a car to the other man	offer umbrella.bmp	la donna sta offrendo l'ombrello all'uomo
1030	2B	The man is throwing the dog a bone	throw ball.bmp	l'uomo lancia la palla alla donna
1030	2B	The artist is showing the people a painting	hand hammer.bmp	l'uomo sta dando il martello alla donna
1030	2B	The teacher is showing a book to the student	show dress.bmp	la donna sta mostrando l'abito
1011	1A	The teacher is showing the student a book	show dress.bmp	la donna mpsla donna mostra al ragazzo un abito
1011	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo da' il martello al suo amico
1011	1A	The man is throwing a bone to the dog	throw ball.bmp	il numero 6 il numero 5 lancia la palla al suo collega
1011	1A	The man is selling the other man a car	offer umbrella.bmp	la donna offre il suo ombrello all'uomo sotto la pioggia
1011	1A	The woman is selling a ring to the man	sell icecream.bmp	l'omino dei gelati sta vendendo in gelato a un cliente
1011	1A	The girl is throwing the boy a box	give flower.bmp	l'alunna da' un fiore alla sua insegnante

1011	1A	The server is offering tea to the woman	throw keys.bmp	la donna lancia le chiavi al centravanti della nazionale brasiliana
1011	1A	The man is handing the other man a ticket	hand passport.bmp	l'addetto passa il passaporto all'uomo in giacca e cravatta
1011	1A	The man is offering a handkerchief to the woman	offer cake.bmp	un uomo offre una torta a due persone sul divano
1011	1A	The woman is giving the boy a cookie	show drawing.bmp	il bambino mpst mostra un disegno a suo padre
1011	1A	The man is giving the girl a pencil	give banana.bmp	un ragazzo da' la sua banana al suo amico
1011	1A	The woman is handing the salt to the man	sell baguette.bmp	la venditrice vende del ap pane alla cliente
1033	2B	The woman is handing the man the salt	sell baguette.bmp	La panettiera vende il pane alla cliente
1033	2B	The man is giving a pencil to the girl	give banana.bmp	Il bambino sta dando la banana a un suo amico
1033	2B	The woman is giving a cookie to the boy	show drawing.bmp	Il bambino sta mostrando il disegno al papa'
1033	2B	The man is offering the woman a handkerchief	offer cake.bmp	L'uomo
1033	2B	The man is handing a ticket to the other man	hand passport.bmp	Il controllore sta passando il passaporto al passeggero
1033	2B	The server is offering the woman tea	throw keys.bmp	La donna sta lanciando le chiavi all'uomo
1033	2B	The girl is throwing a box to the boy	give flower.bmp	La bambina sta dando un fiore al maestro
1033	2B	The woman is selling the man a ring	sell icecream.bmp	Il gelataio sta vendendo un gelato al cliente
1033	2B	The man is selling a car to the other man	offer umbrella.bmp	La donna sta offrendo un ombrello all'uomo
1033	2B	The man is throwing the dog a bone	throw ball.bmp	Un giocatore sta lanciando la palla al compagno
1033	2B	The artist is showing the people a painting	hand hammer.bmp	Il bambino sta dando il martello alla mamma

1033	2B	The teacher is showing a book to the student	show dress.bmp	La donna sta mostrando il vestito al marito
1010	1A	The teacher is showing the student a book	show dress.bmp	la ragazza mostra un vestito all'insegnan
1010	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo da'un martello alla madre
1010	1A	The man is throwing a bone to the dog	throw ball.bmp	il ragazzo lancia la palla alla ragazza
1010	1A	The man is selling the other man a car	offer umbrella.bmp	la donna offre un ombrello all'uomo
1010	1A	The woman is selling a ring to the man	sell icecream.bmp	il grlatai ogelataio vened vende un gelato all'uomo
1010	1A	The girl is throwing the boy a box	give flower.bmp	la bambina da' un gio fiore alla maesr mas maestra
1010	1A	The server is offering tea to the woman	throw keys.bmp	la donna lancia le chiavi all'uomo
1010	1A	The man is handing the other man a ticket	hand passport.bmp	il signore passa i controlli
1010	1A	The man is offering a handkerchief to the woman	offer cake.bmp	i ragazzi offrono un er regalo alla nonna
1010	1A	The woman is giving the boy a cookie	show drawing.bmp	o il bambino mstra mostra il i disegno
1010	1A	The man is giving the girl a pencil	give banana.bmp	osemicolon il ragazzo offre una banana all'amico
1010	1A	The woman is handing the salt to the man	sell baguette.bmp	la panettiera vende il pane alla donna
1021	1B	The woman is handing the salt to the man	sell baguette.bmp	Una donna sta vendendo una baguette a un'altra donna.
1021	1B	The man is giving the girl a pencil	give banana.bmp	Un ragazzo da' una banana a un altro ragazzo.
1021	1B	The woman is giving the boy a cookie	show drawing.bmp	Un ragazzo mostra un disegno a suo padre.
1021	1B	The man is offering a handkerchief to the woman	offer cake.bmp	Un uomo sta offrendo una torta a un'anziana.

1021	1B	The man is handing the other man a ticket	hand passport.bmp	Un uomo passa il passaporto a un altro uomo.
1021	1B	The server is offering tea to the woman	throw keys.bmp	Una donna che lancia le chiavi a un uomo.
1021	1B	The girl is throwing the boy a box	give flower.bmp	Una studentessa da' un fiore al suo insegnante.
1021	1B	The woman is selling a ring to the man	sell icecream.bmp	Un uomo vende un gelato a un cliente
1021	1B	The man is selling the other man a car	offer umbrella.bmp	Una donna offre un ombrello a un uomo.
1021	1B	The man is throwing a bone to the dog	throw ball.bmp	Un giocatore lancia la palla a un altro giocatore.
1021	1B	The artist is showing a painting to the people	hand hammer.bmp	Un ragazzo da' un martello a un'altra persona.
1021	1B	The teacher is showing the student a book	show dress.bmp	Una ragazza mostra un vestito a un'amica.
1107	2A	The teacher is showing a book to the student	show dress.bmp	la ragazza mostra il vestito al ragazzo
1107	2A	The artist is showing the people a painting	hand hammer.bmp	il ragazzo da il martello alla ragazza
1107	2A	The man is throwing the dog a bone	throw ball.bmp	il ragazzo lancia la palla alla ragazza
1107	2A	The man is selling a car to the other man	offer umbrella.bmp	la ragazza offre l'ombrello al ragazzo
1107	2A	The woman is selling the man a ring	sell icecream.bmp	il gelatatio vende il gelato all'uomo
1107	2A	The girl is throwing a box to the boy	give flower.bmp	la bambina da un gior fiore alla maestra
1107	2A	The server is offering the woman tea	throw keys.bmp	la ragg ragazza lang lancia le chiavi al ragazzo
1107	2A	The man is handing a ticket to the other man	hand passport.bmp	il signore e' fatto passare dal controllore
1107	2A	The man is offering the woman a handkerchief	offer cake.bmp	il signore offre una torta alla signora

1107	2A	The woman is giving a cookie to the boy	show drawing.bmp	il bmabino mostra il disegno all'uomo
1107	2A	The man is giving a pencil to the girl	give banana.bmp	il bambino da una bamb banana all'altro bambino
1107	2A	The woman is handing the man the salt	sell baguette.bmp	la signora sta vendendo il pane a una signora
1112	1B	The woman is handing the salt to the man	sell baguette.bmp	la commessa sta vendendo il pane alla signora
1112	1B	The man is giving the girl a pencil	give banana.bmp	il ragazzo sta dando una banana allbracketleftamico
1112	1B	The woman is giving the boy a cookie	show drawing.bmp	il bambino most sta mostrando un disegno sl maestro
1112	1B	The man is offering a handkerchief to the woman	offer cake.bmp	the men man is offering a cake to his frienlbracketleftuomo offre una
1112	1B	The man is handing the other man a ticket	hand passport.bmp	lbracketleftufficiale da il passaporto allbracketleftuomo
1112	1B	The server is offering tea to the woman	throw keys.bmp	the la donna sta lanciando le che chiavi al signore
1112	1B	The girl is throwing the boy a box	give flower.bmp	la bambina sta dando un fiore al maestro
1112	1B	The woman is selling a ring to the man	sell icecream.bmp	il gelataio sta vendendo un gelato allbracketleftuomo
1112	1B	The man is selling the other man a car	offer umbrella.bmp	la donna sta offrendo un ombretto allbracketleftuomo
1112	1B	The man is throwing a bone to the dog	throw ball.bmp	th il ragazzo sta lanciando la palla alla ragazza
1112	1B	The artist is showing a painting to the people	hand hammer.bmp	lbracketleftuomo sta dando un martello alla donna
1112	1B	The teacher is showing the student a book	show dress.bmp	la commessa sta mostrando un abito alla cliente
1080	1B	The woman is handing the salt to the man	sell baguette.bmp	la commessa vende il pane alla signora
1080	1B	The man is giving the girl a pencil	give banana.bmp	il ragazzo da' una banana all'altro ragazzo

1080	1B	The woman is giving the boy a cookie	show drawing.bmp	il bambino mostra un disegno all'uomo
1080	1B	The man is offering a handkerchief to the woman	offer cake.bmp	l'uomo sta offrendo una torta agli ospiti
1080	1B	The man is handing the other man a ticket	hand passport.bmp	l'uomo sta passando ad un altro il passaporto
1080	1B	The server is offering tea to the woman	throw keys.bmp	la donna sta lanciando le chiavi all'uomo
1080	1B	The girl is throwing the boy a box	give flower.bmp	la bambina sta dando un fiore alla maestra
1080	1B	The woman is selling a ring to the man	sell icecream.bmp	il gelataio sta vendendo un gelato
1080	1B	The man is selling the other man a car	offer umbrella.bmp	la donna sta offrendo un ombrello all'uomo
1080	1B	The man is throwing a bone to the dog	throw ball.bmp	il giocatore lancia la palla alla compagna
1080	1B	The artist is showing a painting to the people	hand hammer.bmp	l'uomo da' il martello alla donna
1080	1B	The teacher is showing the student a book	show dress.bmp	la donna sta mostrando un vestito all'uomo
1082	1B	The woman is handing the salt to the man	sell baguette.bmp	la donna sta vendendo il pane alla ragazza
1082	1B	The man is giving the girl a pencil	give banana.bmp	il ragazzo sta dando una banana all'altro ragazzo
1082	1B	The woman is giving the boy a cookie	show drawing.bmp	il ragazzo sta mostrando un disego all'uomo
1082	1B	The man is offering a handkerchief to the woman	offer cake.bmp	l'uomo sta offrendo una torta alle donne
1082	1B	The man is handing the other man a ticket	hand passport.bmp	l'uomo sta passando per i controlli
1082	1B	The server is offering tea to the woman	throw keys.bmp	la donna sta lanciando le chiavi all'uomo
1082	1B	The girl is throwing the boy a box	give flower.bmp	la bambina sta dando un fiore all'insegnante

1082	1B	The woman is selling a ring to the man	sell icecream.bmp	il gelataio sta vendendo un gelato all'uomo
1082	1B	The man is selling the other man a car	offer umbrella.bmp	la donna sta offrendo un ombrello all'uomo
1082	1B	The man is throwing a bone to the dog	throw ball.bmp	il ragazzo sta lanciando la palla alla ragazza
1082	1B	The artist is showing a painting to the people	hand hammer.bmp	l'uomo sta dando un martello alla donna
1082	1B	The teacher is showing the student a book	show dress.bmp	la donna sta mostrando un vestito all'uomo

Appendix G

English-Italian bilinguals' productions

ID	Speaker	List	Prime	Target Picture	Production
1111	Heritage	1B	The woman is handing the salt to the man	sell baguette.bmp	una donna vende il pane ad unapostrophealtra
1111	Heritage	1B	The man is giving the girl a pencil	give banana.bmp	un amico da una banana
1111	Heritage	1B	The woman is giving the boy a cookie	show drawing.bmp	un bambino mostra il suo disegno
1111	Heritage	1B	The man is offering a handkerchief to the woman	offer cake.bmp	lapostropheuomo offre una torta
1111	Heritage	1B	The man is handing the other man a ticket	hand passport.bmp	lapostropheuomo passa il passaporto
1111	Heritage	1B	The server is offering tea to the woman	throw keys.bmp	la donna lancia le chiavi
1111	Heritage	1B	The girl is throwing the boy a box	give flower.bmp	la studentessa gli da in fiore
1111	Heritage	1B	The woman is selling a ring to the man	sell icecream.bmp	vende un gelato
1111	Heritage	1B	The man is selling the other man a car	offer umbrella.bmp	la donna gli offre un ombrellone

1111	Heritage	1B	The man is throwing a bone to the dog	throw ball.bmp	lapostropheuomo lancia la palla
1111	Heritage	1B	The artist is showing a painting to the people	hand hammer.bmp	lui le da un martello
1111	Heritage	1B	The teacher is showing the student a book	show dress.bmp	la donna mostra il vestito
1108	Heritage	1B	The woman is handing the salt to the man	sell baguette.bmp	La donna con la camicia arancione vende un baguette alla donna in verde
1108	Heritage	1B	The man is giving the girl a pencil	give banana.bmp	Lui la da una bannaa
1108	Heritage	1B	The woman is giving the boy a cookie	show drawing.bmp	Lui mostra il suo dipinto di una casa a un uomo
1108	Heritage	1B	The man is offering a handkerchief to the woman	offer cake.bmp	Lui offre torta a due donne
1108	Heritage	1B	The man is handing the other man a ticket	hand passport.bmp	Lui sta passando alla securita in un aeroporto
1108	Heritage	1B	The server is offering tea to the woman	throw keys.bmp	Lei lancia i chiavi a lapostropheuomo
1108	Heritage	1B	The girl is throwing the boy a box	give flower.bmp	Lei da un fiore alla sua maestra

1108	Heritage	1B	The woman is selling a ring to the man	sell icecream.bmp	Lui vende gelato alapostropheuomo con la barba
1108	Heritage	1B	The man is selling the other man a car	offer umbrella.bmp	Lei offre la sua umbrella nera allapostropheuomo
1108	Heritage	1B	The man is throwing a bone to the dog	throw ball.bmp	Lui lancia la palla alla donna con i capelli rossi
1108	Heritage	1B	The artist is showing a painting to the people	hand hammer.bmp	Lui da un martello a la donna
1108	Heritage	1B	The teacher is showing the student a book	show dress.bmp	Lui mostre il vestito a la sua amica
1105	Balanced Bilingual	1A	The teacher is showing the student a book	show dress.bmp	la signora mostra al ragazzo un vestito
1105	Balanced Bilingual	1A	The artist is showing a painting to the people	hand hammer.bmp	il ragazzo da all alla ragazza il martello
1105	Balanced Bilingual	1A	The man is throwing a bone to the dog	throw ball.bmp	il giocatore lancia ala p la palla ad un semicolonunsemicolona unapostrophealtro giocatore
1105	Balanced Bilingual	1A	The man is selling the other man a car	offer umbrella.bmp	la signora offre lapostropheombrello al signore
1105	Balanced Bilingual	1A	The woman is selling a ring to the man	sell icecream.bmp	il gelataio vende un gelato al signore
1105	Balanced Bilingual	1A	The girl is throwing the boy a box	give flower.bmp	la ragazzina da un fiore alla mas maestra

1105	Balanced Bilingual	1A	The server is offering tea to the woman	throw keys.bmp	la ragazza lancia le chiavi al ragazzo
1105	Balanced Bilingual	1A	The man is handing the other man a ticket	hand passport.bmp	il signore passa dopo aver mostrato il passaporto allapostropheagente del aeroporto
1105	Balanced Bilingual	1A	The man is offering a handkerchief to the woman	offer cake.bmp	il signore offre all alla signora una torta
1105	Balanced Bilingual	1A	The woman is giving the boy a cookie	show drawing.bmp	il ragazzo mostra il ifi disegno allapostropheinsegnante
1105	Balanced Bilingual	1A	The man is giving the girl a pencil	give banana.bmp	il ragazzo da ad un altro d ragazzo una banana
1105	Balanced Bilingual	1A	The woman is handing the salt to the man	sell baguette.bmp	la signora vene una baguette alla cliene cliente
1116	Bilingual	2A	The teacher is showing a book to the student	show dress.bmp	the girl is showing a dress
1116	Bilingual	2A	The artist is showing the people a painting	hand hammer.bmp	il ragazzo sta dando una mano
1116	Bilingual	2A	The man is throwing the dog a bone	throw ball.bmp	il ragazzo sta lanciando una palla
1116	Bilingual	2A	The man is selling a car to the other man	offer umbrella.bmp	la ragazza sta offrendo il suo ombrello

1116	Bilingual	2A	The woman is selling the man a ring	sell icecream.bmp	il ragazzo sta vendendo un gelato
1116	Bilingual	2A	The girl is throwing a box to the boy	give flower.bmp	la bambina sta dando un fiore al prof
1116	Bilingual	2A	The server is offering the woman tea	throw keys.bmp	la ragazza sta lanciando le chiavi
1116	Bilingual	2A	The man is handing a ticket to the other man	hand passport.bmp	sta passando il passaporto
1116	Bilingual	2A	The man is offering the woman a handkerchief	offer cake.bmp	l'uomo sta offrendo una torta
1116	Bilingual	2A	The woman is giving a cookie to the boy	show drawing.bmp	il bambino sta mostrando il suo disegno
1116	Bilingual	2A	The man is giving a pencil to the girl	give banana.bmp	il ragazzo sta dando la sua banana
1116	Bilingual	2A	The woman is handing the man the salt	sell baguette.bmp	la commessa sta vendendo pane
1110	Italian foreign language learner	1B	The woman is handing the salt to the man	sell baguette.bmp	La donna vende il panne a lapostropheatra donna
1110	Italian foreign language learner	1B	The man is giving the girl a pencil	give banana.bmp	Il umomo da un banana al

1110	Italian foreign language learner	1B	The woman is giving the boy a cookie	show drawing.bmp	Il ragazzo mostra lapostrophearte al suo padre
1110	Italian foreign language learner	1B	The man is offering a handkerchief to the woman	offer cake.bmp	Il uomo offra la
1110	Italian foreign language learner	1B	The man is handing the other man a ticket	hand passport.bmp	
1110	Italian foreign language learner	1B	The server is offering tea to the woman	throw keys.bmp	La donna sta lanciando gli chiavi al uomo
1110	Italian foreign language learner	1B	The girl is throwing the boy a box	give flower.bmp	La ragazza da una fiore al professore
1110	Italian foreign language learner	1B	The woman is selling a ring to the man	sell icecream.bmp	Il uomo vende il gelato
1110	Italian foreign language learner	1B	The man is selling the other man a car	offer umbrella.bmp	La donna sta offrendo un ombrello al uomo
1110	Italian foreign language learner	1B	The man is throwing a bone to the dog	throw ball.bmp	Il uomo lancia la palla al ragazzo
1110	Italian foreign	1B	The artist is showing a	hand hammer.bmp	Il uomo da il martello a la donna

	language learner		painting to the people		
1110	Italian foreign language learner	1B	The teacher is showing the student a book	show dress.bmp	la donna mostra il vestito al uomo

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