1. Introduction

It has been observed that overt and null subjects do not have the same distributional properties within the same pro-drop language. That is, there are certain grammatical and discourse principles that determine the occurrence of overt versus null pronominal subjects in a particular context (Enç, 1986; Erguvanlı-Taylan, 1986; Pérez-Leroux & Glass, 1997, 1999). For example, it is known that overt and null pronouns demonstrate different interpretative properties as bound variable or referential pronouns (Montalbetti, 1984; Saito & Hoji, 1983).

The binding contrast between overt and null pronouns in the context of quantified antecedents is formulated by Montalbetti (1984) under the Overt Pronoun Constraint (OPC) and postulated as a property of Universal Grammar (UG).

Following Montalbetti’s claim on the universality of the OPC in pro-drop languages, L2 researchers have looked at the acquisition of this phenomenon in Spanish (Pérez-Leroux & Glass, 1997) and in Japanese (Kanno, 1997; 1998) and found native-like performance in adult L2 acquisition of the OPC. They have attributed this to the presence of UG-constrained L2 grammar in adult learners (see also White, in press).

In this paper, we will look at the OPC effects in Turkish, a null-subject language, which, despite arguments for the universality of the OPC, presents evidence for the similar distribution of null and overt pronouns. L2 Turkish data from native English speakers will be discussed within this context in relation to Binding Principle B.

2. Background

2.1 Empty categories

Empty categories are defined as syntactically observable but phonetically null elements. Much research has focused on the identification of the precise status of empty elements. Within the framework of Government and Binding (GB) (Chomsky, 1981, 1982), the typology of empty categories is established as follows:

(1) \begin{array}{|c|c|}
\hline
\text{Overt elements} & \text{Empty elements} \\
\hline
\text{a. [+anaphor, -pronominal] } & \text{anaphor} \\
\text{b. [-anaphor, +pronominal] } & \text{pronoun} \\
\text{c. [+anaphor, +pronominal] } & \text{PRO} \\
\text{d. [-anaphor, -pronominal] } & \text{wh-trace} \\
\hline
\end{array}

In this investigation, we will be concerned with the empty category pro and its overt counterpart. The empty element pro is a pure pronominal like its overt counterpart. It is allowed only in languages where it can be identified (e.g., Spanish, Japanese or Turkish). The crucial assumption here is that empty categories mirror their overt counterparts:

1. An empty category (\(\alpha\)) is a variable iff it is locally A'-bound and is in an A-position.
2. If \(\alpha\) is not a variable, then it is an anaphor.
3. \(\alpha\) is a pronominal iff it is free or locally A-bound by an antecedent (\(\beta\)) with an independent 0-role. (Chomsky, 1981, p. 330).

This assumption runs into problems with respect to the interpretative behaviours of overt and null pronouns, in contexts that involve binding (Montalbetti, 1984). This point, i.e., the interpretative differences between pro and its overt counterpart forms the basis of Montalbetti’s OPC.

2.2 The Overt Pronoun Constraint

Montalbetti’s (1984) OPC suggests that in pro-drop languages, overt and null pronouns demonstrate different interpretative properties as bound variables. Overt pronouns cannot be linked to a formal variable. The following examples from Spanish and Japanese illustrate this point:

2.2.1 Spanish

i. Referential antecedent context:

(2) a. Juan, cree que [él i/j es inteligente]
   b. Juan, cree que [pro i/j es inteligente]
   ‘John believes that he / pro is intelligent’

ii. Quantified antecedent context:

(3) a. Nadie, cree que [él i/j es inteligente]
   b. Nadie, cree que [pro i/j es inteligente]
   ‘Nobody believes that he / pro is intelligent’ (Montalbetti, 1984)

2.2.2 Japanese

i. Referential antecedent context:

(4) a. Tanaka-san, wa [kare i/j-ga kaisya de itiban da to] itte-iru
   Tanaka-Mr Top he-Nom company in best is that saying-is
   ‘Mr Tanaka is saying that he / pro is the best in the company’

ii. Quantified antecedent context:

(5) a. Dare-ga i [kare-ga i/j kuruma o katta to] itta no?
   Who-Nom he-Nom car Acc bought that said Q
   b. Dare-ga i [pro i/j kuruma o katta to] itta no?
   Who-Nom pro car Acc bought that said Q
   ‘Who said that he / pro bought a car’ (Kanno, 1997)

The examples above illustrate how the OPC works in Spanish and Japanese. As predicted by the OPC, we see a contrast in binding of overt embedded subject pronouns in the context of referential versus quantified antecedents. When the antecedent is a referential NP (2 and 4), overt pronouns and pro have the same referential properties. However, when the antecedent is quantified (3 and 5), overt pronouns, unlike pro, cannot be bound by the quantified antecedent. They can only have disjoint reference. The distinction between bound and disjoint interpretations can be formally explained as follows (consider the example in 3):

---

1 The following abbreviations are used in this paper: Acc=Accusative; Dat=Dative; Gen=Genitive; Nom=Nominative, Nomz=Nominalization; Neg=Negation; Poss=Possessive; Prg=Progressive; Pst=Past; Sg=Singular, Q=question, Top=Topic
Bound variable interpretation: (No x: x is a person) x believes that x is intelligent.
Disjoint interpretation: (No x: x is a person) x believes that y is intelligent.

In the examples above, the indices in the English translations indicate what is (im)possible in the original language. Note, however, that in English, a non-pro-drop language, the overt pronoun in the embedded subject position can be bound\(^2\) by referential (6a) and quantified antecedents (6b), or it can have disjoint reference. This point will be relevant when we compare Turkish and English overt pronoun binding.

(6) a. John, believes that [he\(_i\)] is intelligent
   b. Nobody\(_i\), believes that [he\(_i\)] is intelligent

2.2.3 Turkish

Let us now look at binding facts in Turkish. Turkish has two overt pronominals: O and kendisi, which can be translated as ‘s/he’ and ‘self’, respectively. The reflexive pronoun stem kend\(i\)\(^3\) means ‘self’ and a possessive suffix is attached to it to indicate the person and number of the subject. This form is used to express reflexive relations as in (7) below. However, with the third person singular suffix, it can be used as a pronoun as in (8).

(7) Elifi kend-ni\(_i\) begen-iyor
   Elif s/he-Acc like-Prg
   ‘Elif i likes herself.’

(8) O / kend-si / pro toplant-ya git-ti
    S/he self-3sg pro meeting-Dat go-Pst
    ‘S/he went to a meeting’

The example in (8) illustrates that the subject position of a sentence can be occupied by the overt pronoun o, kendisi or pro. The example in (9) illustrates that these pronouns can also appear in object positions where the pronoun o strictly obeys Principle B, while pro\(^4\) and kendisi are unconstrained.

(9) Elif i o-nu*\(_i\)/ kend-si-ni\(_i\) / pro\(_i\) begen-iyor
   Elif s/he-Acc self-3sg-Acc pro like-Prg
   ‘Elif i likes her*i/j / self\(_i\) / pro\(_i\)’

The following examples illustrate binding possibilities of overt and null pronouns in embedded subject positions. The overt reflexive pronoun kendisi and pro have the identical antecedent possibilities.

\(^2\) In many cases, for ease of illustration and explanation, we use the term ‘bound’ instead of ‘coreferential’ even when the antecedent is a referential NP.
\(^3\) Kendi as an adjective means ‘own’ (Lewis, 1967, p. 79):
   (i) (Ben-im) kendi oda-m
       I-Gen own room-1sgposs
       ‘My own room’
   (ii) (O-nun) kendi ev-i
        S/he-Gen own house-3sgposs
        ‘Her/His own house’
\(^4\) Of course, the appearance of A-bound pro in the object position is possible only when there exists a relevant discourse context (cf., Huang, 1991). However, the point we are concerned with here is the fact that in the grammar of Turkish, pro can potentially have these binding possibilities.
i. Referential antecedent context:

(10)a. Elif, [önum-t] çok inatçı ol-dug-u[n] bil-iyor
    Elif s/he-Gen very stubborn be-Nomz-3sgposs-Acc know-Prg

   Elif self-3sg-Gen very stubborn be-Nomz-3sgposs-Acc know-Prg

c. Elif, [pro-t] çok inatçı ol-dug-u[n] bil-iyor
   Elif very stubborn be-Nomz-3sgposs-Acc know-Prg

‘Elif knows that s/he*i/j /selfi/j /pro*i/j  is very stubborn’

ii. Quantified antecedent context:

   Nobody s/he-Gen smart be-Nomz-3sgposs-Acc think-Neg-Prg

   Nobody self-3sg-Gen smart be-Nomz-3sgposs-Acc think-Neg-Prg

c. Kimse, [pro-t] akıllı ol-dug-u[n] durée-m-üyör
   Nobody pro smart be-Nomz-3sgposs-Acc think-Neg-Prg

‘Nobody thinks (that) s/he*i/j /selfi/j /pro*i/j  is smart’

As can be seen from the coindexations above, in Turkish, the overt pronoun o can never be coreferential or bound by the matrix subject. That is, it only allows a disjoint reading (see 10a and 11a). In contrast, the overt pronoun kendisi and pro are both unconstrained in their binding properties. They can be bound by the matrix subject or have disjoint readings. Thus, the contrast we observe between the Turkish overt pronoun o and the null pronoun is not restricted to bound variable contexts as proposed under the OPC (as is the case of Spanish and Japanese). In other words, there is a contrast between overt and null pronouns in both referential and bound variable antecedent contexts in Turkish. These observations are summarised in Table 1 below:

Table 1. Summary of facts of binding in Turkish and Spanish/Japanese

<table>
<thead>
<tr>
<th>TURKISH</th>
<th>SPANISH/JAPANESE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Referential antecedents</strong></td>
<td><strong>Quantified antecedents</strong></td>
</tr>
<tr>
<td>Reading</td>
<td>O</td>
</tr>
<tr>
<td>Bound</td>
<td>NO</td>
</tr>
<tr>
<td>Disjoint</td>
<td>YES</td>
</tr>
<tr>
<td>Bnd or Dis</td>
<td>NO</td>
</tr>
</tbody>
</table>

Thus, we have seen that binding conditions for overt and null subject pronouns in three pro-drop languages do not follow similar patterns. In contrast to Spanish and Japanese, the OPC is not clearly exemplified in Turkish. Given the similar binding properties of pro and the form kendisi, we suggest that in comparing overt pronouns with null pronouns, it might be necessary to consider all possible overt pronominals that could potentially be the counterpart of pro in a language. In the case of Turkish, we propose that the overt counterpart of pro is not the overt pronoun o but the overt pronoun kendisi.

Another issue that emerges out of these observations is the ‘disjoint-only’ requirement for the Turkish overt pronoun o. Compare the overt pronoun binding in Turkish and English in the following examples:
(12a) Elif [o-nun_i/j] gel-eceg-i-ni söyle-di
Elif s/he-GEN come-Nomz-3sgposs-Acc say-Pst
‘Elif, said (that) s/he_i/j would come’ (Elif said her coming)

b. Elif, said (that) [shei/j] would come

To be able to understand these issues clearly, we need to consider binding (governing) domains in Turkish and English. According to the theory of Binding we adopt Chomsky (1986):

Binding Principle B: A pronominal is free in its governing category (GC).

In this version of Binding Theory, the GC is defined as:

The GC for a pronoun or an anaphor $\alpha$ is the minimal complete functional complex that contains $\alpha$ and a governor of $\alpha$ and in which $\alpha$’s binding condition could, in principle, be satisfied (Chomsky, 1986; Chomsky & Lasnik, 1995).

In (12a), indices for $o$ suggest that the GC for the overt pronoun is not the embedded clause but the matrix clause. However, the embedded clause is a GC for the English pronoun (12b). Similar observations hold in genitive-possessive NP (or DP) constructions:

(13a) Elifi DP [o-nun_i/j] anne-si-ni öp-tü
Elif she-Gen mother-3sgposs-Acc kiss-Pst
‘Elifi kissed her_i/j mother’

b. Elif, kissed DP [heri/j] mother

According to the version of Binding Theory adopted here, the bracketed DP is the GC and the pronoun is free in this domain. This explains the grammaticality of coindexation between the subject antecedent Elif and the pronoun her in (13b). However, the Turkish pronoun $o$ in (13a) is obligatorily disjoint from the antecedent outside the DP.

We argue that this difference stems from the differences in GCs in two languages. Most complement clauses are nominalized constructions in Turkish. Nominalized constructions behave exactly like lexical DPs in many respects such as their internal morphology, Case marking (compare 12a and 13a), etc. (George & Kornfilt, 1981).

Thus, unlike English, embedded clauses in Turkish are DPs rather than finite IPs. Embedded nominalized clauses, being like lexical DPs, do not count as GCs in Turkish (i.e., $D^0$ is not a governor of SpecDP). In these cases, the GC is the tensed matrix clause that includes the pronoun and a finite $I^0$.

Along the lines of Manzini and Wexler’s (1987) view, we will assume that binding conditions across languages are subject to language-specific parameter settings. Thus, we will consider the difference between English and Turkish with respect to the overt subject pronoun binding to be a consequence of a parametric option permitting DPs as governing domains in English but not in Turkish.

The anaphoric pronominal kendisi and the empty pronoun pro, with their less constrained binding possibilities, are different from the overt pronoun $o$, in the sense that their referential properties do not strictly fall under Principle B.

So far, we have observed that Turkish embedded clauses are DPs but not IPs. Given that DPs do not function as governing domains in Turkish, it follows then that embedded clauses do not constitute governing domains either. Thus, the disjointness requirement for the overt pronoun $o$ within these clauses falls out from Principle B. The contrast between the overt pronoun $o$ and pro is due to the fact that the pronoun $o$ is not the overt counterpart of pro. Its overt counterpart is the anaphoric pronominal kendisi, which is similar to pro in its ‘unconstrained’ binding properties. Given these facts, Turkish does not demonstrate interpretative differences between overt and null pronouns in the manner suggested by Montalbetti’s OPC.
3. Predictions

Our focus in this study is the end-state L2 acquisition of Turkish overt and null pronoun binding by native English speakers. Within the background summarised above, three contrasts between Turkish and English are relevant for us. First, English does not allow null subject pronouns; it only allows overt subjects. Second, it does not have a nominative reflexive pronominal like kendisi. Finally, in English, besides finite IPs, DPs are also GCs.

We predict that L1 transfer may persist through the L2 end-state in situations where the L2 allows a more restricted grammar. For example, we anticipate problems in the acquisition of overt subject pronoun (o) binding as L2 Turkish, by not allowing DPs to be GCs, allows a more restricted grammar than the L1 English. However, the L1 is not expected to interfere with the acquisition of the binding properties of kendisi and pro because no equivalent form of kendisi exists in the L1 and in the case of pro, L2 learners go from a more restricted L1 grammar to a broader L2 grammar (L2 Turkish, being a pro-drop language, has broader options than non-pro-drop L1 English).

With respect to the OPC, we suggest that it is not a universal characteristic of all pro-drop languages. Nevertheless, we argue that irrespective of the universality of the OPC, L2 learners can still acquire the subtle binding characteristics of overt and null pronouns in the L2.

4. The study

4.1 Participants

We tested 28 native English speakers who are end-state L2 speakers of Turkish. The participants, aged between 30 and 70 (mean age: 46), came to Turkey at an adult age (ages between 20-34; mean age of arrival: 25) and had been living in Turkey for at least 10 years at the time of testing. The years of stay ranged from 10 to 36 years (mean length of stay: 18.5 years). For these participants, the age of first exposure to Turkish coincides with the age of first arrival to Turkey.

30 native Turkish speakers also participated in the study as a control group.

4.2 Tests

The tests included a written interpretation task, a truth-value judgement task and a picture identification task.

4.2.1 Test 1: Written interpretation task

This test was adopted from Kanno (1997). It included 48 items with 24 referential and 24 quantified antecedents, where each category had 12 overt and 12 null pronouns. In this test, participants were given a Turkish sentence and asked to select possible antecedent(s) (from among the three options given) for the embedded subject pronoun in complex sentences like (14). For example in (14), participants were expected to circle option (b), as the overt pronoun cannot be coreferential with the matrix subject.

(14) Mehmet [ o-nun*i/j sinema-ya gid-eceg-i]-ni söyle-di
    Mehmet s/he-Gen cinema-Dat go-Nomz-3sgposs-Acc say-Pst
    ‘Mehmet said (that) [ s/he*i/j would go to the movies]’

Soru (question): Sizce bu cümleye göre kim sinemaya gidecek olabilir? (According to this sentence, who could be the person that would go to the movies?)

(a) Mehmet
(b) Baska bir kisi (some other person)
(c) Hem (a) hem (b) (Both (a) and (b))
4.2.2 Test 2: Truth-value judgement task (Story task)

This test was adopted from Dekydtspotter, et al. (1997) and White et al. (1997). It included 36 items that come from 12 different stories (each repeated three times). Out of 36 items, we had 18 items with referential antecedents (12 overt; 6 null pronouns) and 18 with quantified antecedents (12 overt; 6 null pronouns). In this task, participants were given a short English story and asked to judge the following Turkish sentence as true or false according to the context given in the story as illustrated in the example below:

(15) Story:
Mary and Brian went to a restaurant. Mary ordered seafood and Brian ordered a pizza. The bill came to 50 dollars. Brian complained that the bill was high but Mary didn’t agree.

Target sentence to be judged:
Mary o-nun restoran-ı pahalı bul-dug-u-nu söyle-di
Mary s/he-Gen restaurant-Acc expensive find-Nomz-3sgposs say-Pst
‘Mary said (that) s/he*i/j found the restaurant expensive’

In this particular example, if participants answer true, this means that they get the disjoint reading but if they say false, this suggests that they get the bound reading for the overt pronoun o, an option that is not allowed in the grammar of native Turkish. However, as can also be seen from the translation, the bound reading for the overt pronoun is possible in L1 English. That is, the overt pronoun in the embedded subject position can be coreferential with the matrix subject Mary. Thus, any response in that direction might suggest L1 effects.

4.2.3 Test 3: Picture task (Listening)

This test included 24 sentences (8 different pictures, each repeated three times). The sentences here were all in referential contexts. The items included 16 overt and 8 null pronouns. In this task, participants heard a binding sentence in Turkish and at the same time saw a picture involving two characters and decided whether the sentence they heard matched the picture they saw.

5. Results

The results of each test were summarised in the tables below.

Table 2. Test 1: Written interpretation task

<table>
<thead>
<tr>
<th>Groups</th>
<th>Referential antecedents</th>
<th>Quantified antecedents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overt embedded subjects</td>
<td>Null embedded subjects</td>
</tr>
<tr>
<td>CONTROL (n=30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>1%</td>
<td>36%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>94%</td>
<td>0%</td>
</tr>
<tr>
<td>Bnd&amp;Dis</td>
<td>5%</td>
<td>64%</td>
</tr>
<tr>
<td>ACQ. (n=28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>7%</td>
<td>69%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>71%</td>
<td>7%</td>
</tr>
<tr>
<td>Bnd&amp;Dis</td>
<td>22%</td>
<td>24%</td>
</tr>
</tbody>
</table>
A one-factor (i.e., group: control, acquisition and attrition\(^5\)) ANOVA was conducted. Percentages indicate how many times participants interpret each pronoun with a particular (i.e., bound, disjoint or ambiguous) interpretation.

Table 3. Test 2: Truth-value judgement task (Story task)

<table>
<thead>
<tr>
<th></th>
<th>Referential antecedents</th>
<th>Quantified antecedents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overt embedded subjects</td>
<td>Null embedded subjects</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL (n=30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>4%</td>
<td>79%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>96%</td>
<td>21%</td>
</tr>
<tr>
<td>ACQ. (n=28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>38%</td>
<td>73%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>62%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Table 4. Test 3: Truth-value judgement task (Picture identification & listening tasks)

<table>
<thead>
<tr>
<th></th>
<th>Referential antecedents</th>
<th>Quantified antecedents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overt embedded subjects</td>
<td>Null embedded subjects</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL (n=30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>0%</td>
<td>85%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>100%</td>
<td>15%</td>
</tr>
<tr>
<td>ACQ. (n=28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bound</td>
<td>24%</td>
<td>83%</td>
</tr>
<tr>
<td>Disjoint</td>
<td>76%</td>
<td>17%</td>
</tr>
</tbody>
</table>

6. Summary of results

i. Results of Test 2 and Test 3 reveal that given two options (i.e., bound and disjoint interpretation), both groups tend to get the bound reading with *kendisi* and *pro* but disjoint reading with *o*.

ii. However, as we see from the results of the written interpretation task (Test 1), given the third (i.e., ambiguous) interpretation, the acquisition group, unlike the control group, still tends to give a bound interpretation to *kendisi* and *pro*. In other words, they do not always recognise the ambiguity involved in the readings of these pronominals.

iii. Although there is a tendency to give a disjoint reading to the overt pronoun *o* across all tasks, the acquisition group allows bound (and ambiguous interpretations) for *o* at a significantly higher percentage than native controls,\(^6\) suggesting L1 English interference.

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\(^5\) This study is a part of a larger investigation that also includes an L1 attrition group.

\(^6\) Planned comparisons conducted within an ANOVA revealed that in Test 1, the acquisition group allowed significantly more bound readings to the overt pronoun *o* \([F(1, 79)=8.46, p<0.01]\). Similarly, the acquisition group allowed fewer disjoint readings to the overt pronoun *o* than the control group \([F(1,79)=13.43, p<0.001]\). The acquisition group was found to be significantly different from the controls with respect to the allowance of ambiguous interpretation to the overt pronoun *o* \([F(1, 79)=7.72, p<0.01]\). In Test 2, the acquisition group allowed the bound reading for the overt pronoun *o* at a significantly higher percentage in referential \([F(1,79)=45.93, p<0.0001]\) and quantified contexts \([F(1, 79)=19.96, p<0.0001]\). The same results hold in Test 3, in the referential context \([F(1, 79)=41.87, p<0.0001]\). The planned comparisons within an ANOVA revealed that the acquisition group allowed the bound reading higher than the control group. Note that since this study also includes an L1 attrition group (n=24), the total number of subjects on which the analysis is based is 82, hence the degrees of freedom are (1, 79).
iv. Neither group treats $o$ as the overt counterpart of $pro$. Thus, the acquisition group demonstrates knowledge that $o$ is not the overt counterpart of $pro$.

v. Neither group treats $kendisi$ like $o$. Thus, the L2 group demonstrates knowledge that the two overt pronominals are different with respect to the binding options they allow.

vi. The proposal that $kendisi$ is the overt counterpart of $pro$ is largely confirmed, as these two pronominals are interpreted the same way to a large extent.

vii. With respect to any ‘possible’ application of the OPC, no tendency is observed to treat overt pronouns differently in referential or quantified contexts. As far as $o$ is concerned, the disjoint-only interpretation is due to an independent property, namely the governing category in Turkish.

7. Conclusion

While L2 learners have difficulty with the acquisition of binding properties of the overt pronoun $o$, they are able to acquire referential properties of the Turkish overt pronominal $kendisi$ and the null pronoun.

With respect to the overt pronoun $o$, it appears that L2 learners under the influence of L1 English, treat $o$ as identical to the English overt pronoun. Binding properties of the overt pronoun in the L1 English are attributed to the corresponding overt pronoun in the L2 Turkish, due to transfer of L1 syntactic option as regards the definition of binding domains. In this particular case, restructuring to a more restricted L2 option seems to be difficult for L2 learners. This suggests that end-state L2 learners may fail to achieve native norms due to persistent L1 interference in certain aspects of L2 grammar.

References


