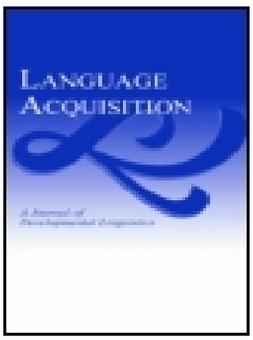

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Interface Hypothesis and the L2 acquisition of quantificational scope at the syntax-semantics-pragmatics interface

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ABSTRACT

According to the Interface Hypothesis (IH) (e.g., Tsimpli & Sorace 2006; Sorace 2011), external interfaces are more challenging for L2 learners than internal interfaces. It is not clear, however, if linguistic phenomena associated with external interfaces are necessarily problematic and if internal interfaces are necessarily unproblematic. In order to test these issues, a bidirectional study was conducted with Turkish-speaking learners of English and English-speaking learners of Turkish on the same "quantificational scope" construction, which lies at the interface of semantics, syntax, and pragmatics and thus involves both internal and external interfaces. The task for the former group implicates greater involvement of pragmatics, an external interface, although, for the latter, it involves expunging a construction from the grammar. The results indicate, contra the IH, that whereas the former group has no problems restructuring their grammar, the latter has persistent difficulties.

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1. Introduction

The role of linguistic interfaces in second language (L2) acquisition has recently been a subject of considerable debate. Syntax or semantics alone is stated to be less problematic for L2 speakers than their interfaces with other areas of the grammar/language (Liceras 1988; Pérez-Leroux & Glass 1999; Sorace 2005; Sorace & Filiaci 2006). Early research has, for example, demonstrated that while learners of null subject languages can successfully reset the Null Subject Parameter and thus produce sentences without overt subjects in null subject languages like Spanish, they nevertheless have difficulties with discourse-related aspects of this parameter, and such difficulties persist even at advanced levels of proficiency (Liceras 1988). Based on findings like these, the Interface Hypothesis (IH) was proposed, which initially claimed that interface syntax is more difficult overall than narrow syntax alone (e.g., Sorace 2005; Sorace & Filiaci 2006). The hypothesis has, more recently, been refined to argue that these difficulties hold true especially for phenomena at external interfaces (e.g., Tsimpli & Sorace 2006; Sorace 2011), i.e., interfaces of modules of grammar (semantics, syntax, morphology, and phonology) with the grammar-external (i) conceptual module such as discourse and pragmatics, and (ii) the articulatory/phonetic module. The latter version of the hypothesis, according to which not all interfaces are equally vulnerable, has recently gained considerable popularity among L2 researchers, especially in accounting for interlanguage grammars that demonstrate optionality at advanced or near-native levels of proficiency. Certain questions have, however, been left unanswered: White (2009a), for example, questions whether this hypothesis is too broad and asks if linguistic phenomena associated with external interfaces

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are necessarily problematic and if those associated with internal interfaces are necessarily unproblematic. Crucially, she questions whether there is a principled reason to believe that different linguistic phenomena at the same interface will behave in identical ways.

In this article, by investigating L2 learners' acquisition of "quantificational scope," I aim to find an answer to these questions. I report on the results of a bidirectional study testing adult Turkish-speaking learners of English and English-speaking learners of Turkish, of different proficiency levels, on the same scope constructions and using the same task. The two languages are in a subset-superset relationship with respect to the scopal interpretations made available by Universal Grammar (UG), with Turkish being the subset and English being the superset language. Though, for both learner groups, the phenomenon lies at the same semantics-syntax interface and the same task is used, Turkish learners of English do far better than English learners of Turkish. This, I conclude, is because the acquisition process for the latter group requires "losing" an interpretation/structure, which is difficult given the lack of negative evidence (see Dekydtspotter et al. 2001; Marsden 2008, 2009 for similar findings with other scope phenomena). The L2 English group, on the other hand, can acquire the relevant structure on the basis of positive evidence. This is despite the fact that, as we will see, for the former group there is a greater role played by pragmatics (an "external" interface with semantics and syntax). The difficulties of the L2 Turkish group seem, therefore, to be at the semantics-syntax interface (an "internal" interface) and not their interface with pragmatics. Furthermore, the fact that the L2 English group does not have these difficulties (and despite the greater role played by an external interface) suggests that L2 learners' difficulties are not caused by the fact that the issue lies at (external) interfaces but rather because of the linguistic nature of their task, i.e., adding versus losing a structure made available by UG.

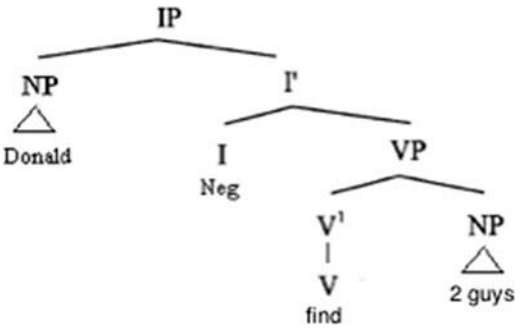
2. Quantificational scope across languages

In English, a sentence such as (1) is scopally ambiguous: It has a surface (see (1a)) and an inverse scope (see (1b)) interpretation, assuming that *two* is quantificational and that *two* and *not* are both scope-bearing elements:

(1) Donald didn't find two guys.
   a. It is not the case that Donald found two guys. (e.g. Donald found one guy, three guys, no guys, etc.) (not > two → surface)
   b. There are two guys that Donald didn't find. (two > not → inverse)
   (adapted from Lidz & Musolino 2002)

Note that the surface scope reading is the one where semantic scope coincides with syntactic scope. Examine (2):

(2)



As can be seen here, negation c-commands *two guys* in the surface syntax (i.e., not > two). In other words, representation (3a) is the one that is employed under the surface scope interpretation of (1), whereas representation (3b) corresponds to the inverse scope (i.e., the wide scope interpretation of the quantified NP here):[1]

(3) a. $\neg\ \exists_2 x\ [\text{guy}(x) \wedge \text{find}(\text{Donald}, x)] \rightarrow$ surface (= narrow here)
b. $\exists_2 x\ [\text{guy}(x) \wedge \text{find}\ \neg\ (\text{Donald}, x)] \rightarrow$ inverse (= wide here)

When (1) is uttered in a context where there are four guys and Donald finds two of them while failing to find the other two, only the inverse scope interpretation makes the sentence true, for there are indeed two guys that Donald didn't find. The surface scope interpretation, on the other hand, makes the statement false, since saying that it is not the case that Donald found two guys would be false in this context, for he did indeed find two guys.

First language (L1) acquisition research has found with Truth Value Judgment Tasks (TVJTs) that in such a context, whereas adults accept (1), children reject it, suggesting that children prefer the surface scope interpretation, i.e., the interpretation that makes the sentence false (see, e.g., Musolino 1998; Musolino, Crain & Thornton 2000; Lidz & Musolino 2002; Musolino & Lidz 2006). Note that children do this despite the Principle of Charity (Grice 1975), the assumption that a sentence will be accepted when at least one reading makes it true. That children fail to choose the interpretation that makes the sentence true has generally been taken to suggest that their grammar lacks this interpretation (though see Özçelik 2016).

Given the Semantic Subset Principle (Crain, Ni & Conway 1994), one interpretation of these facts has been that (1a) is children's initial hypothesis and that they add (1b) on the basis of positive evidence (though see Gualmini 2003, 2004; Hulsey et al. 2004). Given also that there are languages like Turkish, which allows only (1a) (see (4)), it follows that there might be a binary parameter of UG that distinguishes superset languages like English from subset languages like Turkish:

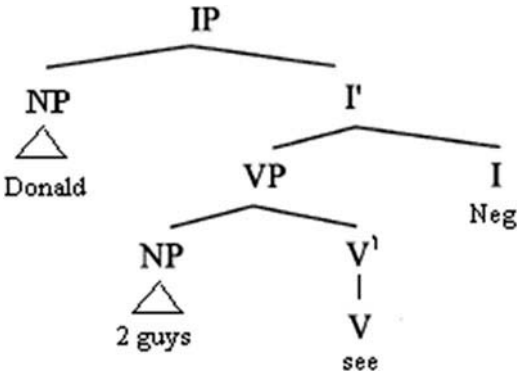
(4) Donald iki çocuk bul-ma-dı.
Donald two child find-NEG-PAST
'Donald didn't find two guys.'
a. It is not the case that Donald found two guys.
(?)b. There are two guys that Donald didn't find.

Note here that though in Turkish the quantified NP precedes negation on the surface, the not > two interpretation (i.e., (4a)) is still the one that corresponds to the surface scope. This is because in Turkish, as with English, negation c-commands the quantified NP, though it follows it on the surface (see note 1).[2] This is illustrated with the Turkish structure in (5); compare this with the English structure in (2):

[1] As noted by the Associate Editor, the term *surface scope* is used in different ways in the literature, either in terms of linear order or in terms of c-command. Both options would work for the example (2/3) in English, as negation both linearly precedes the numeral and c-commands it. In this article, I opt for the latter usage, as with Lidz & Musolino (2002), who experimentally demonstrate, using a language other than English, that c-command is the linguistic determinant of quantificational scope.

[2] Note that scopal interpretations here do not change based on word order (cf. Marsden 2008, 2009 for universal quantifiers in Japanese). In fact, bare nominals in Turkish must occur in the immediately preverbal position (Kornfilt 1997; Özçelik & Nagai 2011), and thus, no alternative word order (or alternative interpretation for that matter) is possible.

(5)



Note at this point that it is not the case that Turkish has no means of expressing a meaning like (4b); it is just that it cannot express this meaning through a quantificational mechanism. It could, however, be expressed under the definite/specific marking of the object NP, in which case, both meanings could be reached depending on which set (found vs. unfound guys) one has in mind. The same mechanism exists in English too, of course, and is not quantificational (i.e., *Donald didn't find the guys.*)

3. L2 acquisition of quantificational scope

3.1. *A construction at the interface of semantics, syntax, and pragmatics*

Two things are clear from the previous discussion: First, English and Turkish differ with respect to the scopal interpretations they allow for sentences like (1), with Turkish being the subset and English being the superset language. That is, whereas Turkish only permits the surface scope interpretation, English has the additional inverse scope interpretation too. Second, for one to be proficient at quantificational scope, s/he needs not only a knowledge of semantics but also a knowledge of syntax, and in the case of English, mastery of pragmatics too, given the involvement of the Principle of Charity due to the presence of two different interpretations in this language that conflict in terms of their truth value.[3] That is, the issue lies right at the semantics-syntax interface for Turkish and the semantics-syntax-pragmatics interface for English. Note that out of these, pragmatics is an external interface with semantics, whereas syntax is internal.

Take, for example, the task faced by a Turkish-speaking learner of English. This learner does not only need knowledge of English syntax, as illustrated in (2), but also the two different semantic representations this structure permits, as in (3). In addition, this learner should also be able to correctly apply the Principle of Charity in order for him or her to behave like a native English speaker. After all, it is because of this pragmatic principle that speakers of English prefer the inverse scope interpretation of a sentence like (1), the interpretation that makes this sentence true, although they have the surface scope interpretation available too.

The task of an English-speaking learner of Turkish also requires knowledge of semantics and syntax, though a knowledge of pragmatics, or at least the correct application of the Principle of Charity, is not essential for them, for there is only one interpretation of (1) available in Turkish, and

[3]As one reviewer has mentioned, the Principle of Charity is, of course, always in play, whether a sentence involves ambiguity as in here or not, for the emphasis in conversation is on seeking to understand and on assuming that the relevant ideas are true, rather than on disagreements. When there is only one interpretation of a statement, however, and one knows, based on the task/observation, that that interpretation is true, this principle is vacuously satisfied and thus does not play a role in determining the truth value of an utterance, as in Turkish.

given only that interpretation, the Principle of Charity will be satisfied vacuously. In addition to the differences with respect to the involvement of an external interface (pragmatics), another property that makes the two tasks different for the two learner groups is the fact that whereas L1 Turkish learners of L2 English need to add to their grammar the inverse scope interpretation that is not available in the L1, L1 English learners of L2 Turkish need to lose this additional interpretation that their L1 permits.

3.2. *Hypotheses*

Given these considerations, in accordance with the IH (Sorace 2006; Sorace & Serratrice 2009; Sorace 2011), I hypothesize that English-speaking learners of Turkish will have higher success rates with Turkish scope facts (which involves an internal interface) than Turkish-speaking learners of English will with English scope (which involves pragmatics, an external interface). In other words, there should be directional differences in eventual success in acquiring L2 scope facts, differences favoring learners of Turkish.

Directional differences are also predicted by the Full Transfer Full Access Hypothesis (FTFA) (Schwartz & Sprouse 1994, 1996), although specific projections are reversed as to which learner group will be more successful. On the FTFA, it is learners of English who are predicted to have higher accuracy rates, as learners of Turkish have to expunge a structure from the grammar: More specifically, lower-proficiency Turkish-speaking learners of English should initially assume that English is like the L1, permitting only (1a), while more proficient L2ers will attain (1b) too (not present in the L1 but exemplified in the L2 input, although L2 input will not contain ample unambiguous evidence in this regard). On the other hand, English-speaking learners of Turkish should overgeneralize the English pattern and be unable to lose it, for there will be no positive evidence to show that (1b) is disallowed in Turkish. For L1 English learners of Turkish, then, the interlanguage end state will diverge from the target grammar.

Despite the fact that the two learner groups are to be doing two different things in terms of expanding or contracting their grammar (or in terms of the internal semantics-syntax interface), their job, in both cases, lies at the same semantics-syntax interface. Further, as the correct application of the Principle of Charity is crucial in reaching targetlike representations of English scope facts, Turkish-speaking learners of English will have to make choices at the interface of semantics and syntax with pragmatics, an external interface. In other words, this is a case that can help us answer the question of whether all external interfaces are equally problematic or whether all internal interfaces are equally unproblematic. If external interfaces are necessarily difficult, Turkish-speaking learners of English must have problems with English scope facts. If internal interfaces are necessarily easy, English-speaking learners of Turkish should have high accuracy rates for the same quantificational scope construction.

4. Experiment

In order to answer these questions, a bidirectional study was conducted, testing adult Turkish-speaking English L2ers (n = 26) and English-speaking Turkish L2ers (n = 19), of different proficiency levels, on the same structures and using the same task. There was also a control group of 20 native Turkish speakers. On the basis of an independent proficiency test, i.e., two different cloze tests that were used for experiments in English and Turkish by previous research, including by the author, learners were placed into three different proficiency groups: There were 7 beginner, 10 intermediate, and 9 advanced Turkish-speaking learners of English, and 7 beginner, 5 intermediate, and 7 advanced English-speaking learners of Turkish. All of the subjects were adult learners, who first studied the target language in a classroom context. In the case of English L2ers, the first intensive contact with the target language occurred either in high school (n = 15) or college (n = 11), although many (n = 12) had started studying English at Grade 4 in elementary school (but in the form of metalinguistic knowledge only). As for

Turkish L2ers, all of them started studying the language in college, irrespective of level of proficiency. All of the advanced learners, both in the L2 English and L2 Turkish groups, had some naturalistic input in the target language, most commonly through study abroad, native-speaking teachers, or through partners who were native speakers of the target language.

The task was a written TVJT, involving judgments of sentences like (1), and was adapted from Lidz & Musolino (2002). (1) was presented following a story where *Donald* plays hide-and-go-seek with four of his friends and in the end finds two of the four guys. In such a context, (1) is true on its inverse scope interpretation, whereas it is false on its surface scope interpretation. Given the Principle of Charity, one would choose the interpretation that makes the sentence true (i.e., (1b)) if both interpretations are accessible and would therefore accept (1). This means that if L1 Turkish learners of L2 English can reach inverse scope interpretations, which their L1 does not have (and if they can correctly apply the Principle of Charity), they should accept (1), as native speakers of English do. As for L1 English learners of L2 Turkish, since Turkish does not have the inverse scope interpretation, a targetlike response, in their case, would be to reject (1), for (1) is false under the surface scope interpretation, the only interpretation available in Turkish. Four of the 16 test sentences used in the experiments are given as examples in (6) and (7) for English and Turkish respectively:

(6) Example test statements at the end of each test story in English:
   a. Donald didn't find two guys.
   b. The pizza guy didn't deliver two pizzas.
   c. The dinosaur didn't eat two pigs.
   d. The giant shark didn't chase two cows.

(7) Example test statements at the end of each test story in Turkish:
   a. Donald iki çocuk bul-ma-dı.
      Donald two child find-NEG-PAST
      'Donald didn't find two guys.'
   b. Pizzacı iki pizza dağıt-ma-dı.
      pizza guy two pizza deliver-NEG-PAST
      'The pizza guy didn't deliver two pizzas.'
   c. Dinazor iki domuz ye-me-di.
      dinosaur two pig eat-NEG-PAST
      'The dinosaur didn't eat two pigs.'
   d. Dev köpek balığı iki inek kovala-ma-dı.
      giant shark two cow chase-NEG-PAST
      'The giant shark didn't chase two cows.'

In addition to the 16 test sentences, exemplified in (6) and (7), there were also 32 control sentences. These served several purposes. Most importantly, they ensured that the number of *yes* and *no* answers was balanced throughout the test, for otherwise a successful learner of English would always be providing the *yes* answer, whereas a successful learner of Turkish would always be providing the *no* answer. In order to avoid such a scenario, only 8 of the 32 control sentences were true (i.e., with an expected *yes* answer) in the English test, whereas 24 of them were true in the Turkish test. This made sure that there were 24 items in total with the expected answer *yes* and 24 with the expected answer *no* in both tests.

Though the truth value of half of the control sentences (i.e., 16 of them) had to be different in English versus Turkish (in order to balance the total number of expected *yes* and *no* answers in the overall test), the stories stayed the same; only the sentences were different, as illustrated in (8). For example, whereas the Turkish test used a sentence like (8a) for half of the control items, the English test used (8b), although the story stayed the same in that the bear in both tests found two pizzas. This ensured that there was a higher number of expected *yes* answers for the control sentences in the Turkish test, thereby compensating for a lower number of expected *yes* responses for the test sentences in the same test (and vice versa for the English test).

(8) Example statements at the end of each control story in English (1) and Turkish (2)

a. 1. The bear found two pizzas. → True
2. The bear found four pizzas. → False

b. 1. The monster ate two animals. → True
2. The monster didn't eat the animals. → False

c. 1. The lion didn't chase the guys. → True
2. The lion chased the guys. → False

d. 1. The frog drank two glasses of milk. → True
2. The frog drank four glasses of milk. → False

5. Results

The dependent variable was subjects' correct responses to sentences like (6) and (7). This means, for L2 speakers of English, "accepting" these sentences (i.e., giving the *yes* answer), and for L2 speakers of Turkish, "rejecting" them (i.e., giving the *no* answer). The results are presented in Table 1 in terms of mean accuracy in percentages.

As seen, on test items it was found that advanced Turkish learners of English (n = 9) behaved like native English speakers by accepting 87.5% of these sentences. Intermediate learners of English (n = 10) were not quite different from English natives either; they accepted these sentences 76.25% of the time. Beginners (n = 7), on the other hand, had not yet acquired the relevant construction, as was predicted, with a 33.04% acceptance rate. A one-way ANOVA was used to test for differences among the three groups. The means differed highly significantly across the three proficiency levels, $F(2, 23) = 33.55$ p = .000. Further, the results of a Tukey HSD test show that these differences were because the beginner group was different from the two other groups: There was no significant difference between the intermediate and the advanced groups (p = .197), whereas the beginner group was, as stated, different from both intermediate (p = .000) and advanced groups (p = .000).

Learners of Turkish, on the other hand, differed from native Turkish speakers at all levels in that they almost always accepted these sentences though Turkish native controls consistently rejected them. In particular, advanced learners of Turkish (n = 7) had only a 16.96% rejection (success) rate, intermediates (n = 5) had 10%, and beginners (n = 7) had 14.29%, while native Turkish speakers (n = 20) had 86.25%. The results of a one-way ANOVA confirm that differences between learners of Turkish and Turkish native speakers were highly significant, $F(1, 37) = 390.480$, p = .000. Further, the results of a Tukey HSD show that native Turkish speakers were different from learners at each proficiency level (p = .000 for each pair), although the differences among the three proficiency groups were not statistically significant ($p > .7$ for each pair).

Table 1. TVJT Results—Percentage accurate in test items.

	Turkish→English	English→Turkish
L2er groups	(English test)	(Turkish test)
Advanced	87.5%	16.96%
Intermediate	76.25%	10%
Beginner	33.04%	14.29%
	English controls	Turkish controls
	N/A (90%–100% in prev. research)[4]	86.25%

[4]Though no English native controls have been tested in this study, we know that L1 acquisition/processing literature has consistently shown that native speakers of English accept these sentences 90%–100% of the time in similar contexts with similar test sentences (e.g., Musolino 1998; Lidz & Musolino 2002).

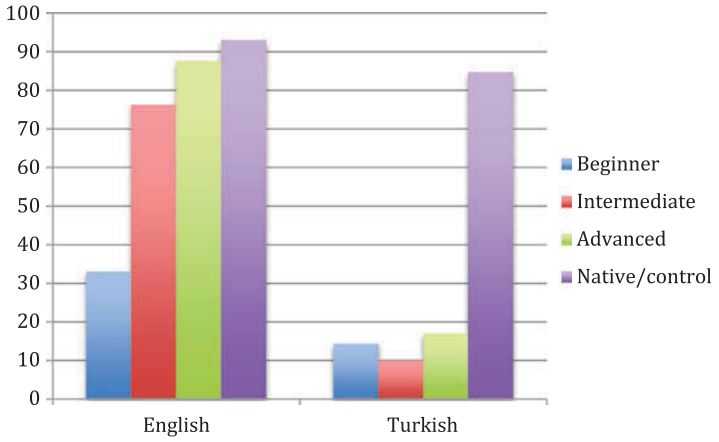


Figure 1. Results: Summary.

The results are summarized in Figure 1 in terms of mean accuracy in percentages. For native English controls, findings of Lidz & Musolino (2002) were used for comparison (i.e., 93% acceptance rate for the exact condition tested here), though, strictly speaking, the rate changed a bit depending on what the exact condition involved or whether or not it involved numeral quantifiers, etc. Lidz & Musolino's (2002) findings are used here as a basis for comparison, as that is the most comparable study since the current study essentially uses the same task, same quantifiers, same scope-bearing elements, and similar sentences (in addition to using some of the same sentences from the original Lidz & Musolino (2002) study, where fewer sentences were used than in this study).

To summarize, Figure 1 shows that whereas Turkish-speaking learners of English behave similarly to English native speakers on the English test (especially at intermediate and advanced levels), English-speaking learners of Turkish behave very differently from Turkish native controls on the Turkish test, irrespective of level of proficiency. Although these results were statistically significant, it should also be noted that since the groups were rather small in size, the data are unlikely to be normally distributed and that the statistical power of the tests that were conducted is likely to be low. The results cannot be ascribed to learners' not having knowledge of individual words or structures (such as numerals and negation) in the target language, however, because they did very well on control items. They successfully responded with a *yes* or *no* answer to control sentences 96% to 100% of the time, irrespective of their level of proficiency or L1/L2 pairing.

6. Discussion and conclusion

In this article, L2 acquisition of quantificational scope was investigated, which lies at the interface of semantics, syntax, and pragmatics and thus involves both internal and external interfaces. The results contribute to a growing body of literature in which the Interface Hypothesis is challenged (see, e.g., Ivanov 2009; Rothman 2009; Slabakova 2011; White 2009b, 2011a, 2011b). According to the Interface Hypothesis, or at least its most recent version (e.g., Tsimpli & Sorace 2006; Sorace 2011, 2012), external interfaces are supposed to be more challenging for L2 learners than internal interfaces. Consider the task of the two populations of learners investigated here: Both are learning "quantificational scope," an issue that lies at the semantics-syntax interface. For learners of English, however, pragmatics is also additionally involved, unlike learners of Turkish, because of the role of the Principle of Charity in determining which of the two available interpretations to choose. This does not, however, result in the task being more difficult for learners of English than for learners of Turkish. On the contrary, English-speaking learners of Turkish have much greater difficulties, and this could be attributed to some other fact, that negative evidence is unavailable. That is, we are now

in a position to answer the question of whether all external interfaces are problematic for L2 learners. The answer to this question is in the negative, as has been demonstrated in this article.

These results also have crucial implications about the question of whether all internal interfaces are equally *un*problematic. The answer to this is also in the negative. Consider, again, the task faced by the two learner groups investigated here. For Turkish learners of English to have nativelike proficiency in English scope constructions, they not only need to add the inverse scope interpretation (not available in L1) to their interlanguage grammar but also correctly employ the Principle of Charity, a pragmatic principle. For English learners of Turkish, on the other hand, the Principle of Charity does not—at least in this task—have an essential role: What these learners need to do is to lose the additional inverse scope interpretation that their L1 makes available;[5] the Principle of Charity does not need to be utilized (i.e., it is vacuously satisfied given that the only interpretation available in Turkish is the one that makes the sentence false). It could then be stated that the task has a bigger pragmatic burden on Turkish learners of English than English learners of Turkish. This, in turn, could be taken to suggest that it lies more at an external interface for learners of English than for learners of Turkish. Nevertheless, it is seen that the former group is far more successful than the latter. To put it another way, it was due more to an internal interface that English learners of Turkish failed to reach targetlike representations, for what they needed to do was just to expunge from the grammar the additional semantic representation associated with a construction like (2), something that lies at the semantics-syntax interface (see also Dekydtspotter et al. 2001; Marsden 2008, 2009 for previous research that also found, with scope interpretation phenomena, that losing a structure from the L1 is challenging). Turkish-speaking learners of English also had to make decisions at this interface, but their job was to "add" an interpretation, unlike English-speaking learners of Turkish, which is easier since it could be done on the basis of positive evidence. In sum, the current research also answers the question of whether all internal interfaces are equally *un*problematic, and the answer to this question is also *no*.

Finally, the findings also contribute to our understanding of UG, as well as presenting evidence for such UG-based approaches as the FTFA. Since L2 learners of English were able to converge on the representations of native English speakers, and since they were able to do this despite positive evidence being limited in this direction, it follows that this interpretation must somehow have been available to them through the language faculty, and "reconstruction" has taken place based on this limited input. After all, as one reviewer states, even though, in theory, positive evidence is available in this direction, it is doubtful that the L2 input will contain many contexts in which there will be "unambiguous exemplification." In fact, there will be no unambiguous exemplification, because any time the inverse scope interpretation is true in English, the surface scope interpretation will also be true for sentences like (2) (although, of course, context may unambiguously direct learners to an inverse scope interpretation, at least in some limited cases). As such, the fact that Turkish learners of English are having a relatively easy time learning these constructions can be ascribed to the

[5]One reviewer raises the possibility that the failure of English-speaking learners of Turkish to reject the *two* > *not* interpretation is a case-related problem rather than being related to scope. In particular, s/he questions if the learners do not know that Turkish direct objects without the overt accusative case marking are *not* specific, since, with the specificity/accusative marker *–I* attached to the direct object, the *two* > *not* interpretation is indeed achievable (see Heusinger & Kornfilt 2005), although this is not *genuine* wide scope (Ioup 1977; Enç 1991). According to Enç (1991), for example, specific readings, whether in English or Turkish, cannot be analyzed as scope phenomena. Unfortunately, there were no control items in the experiments testing whether subjects knew that, unlike English, bare nouns in Turkish are always unspecific, in the absence of which it is impossible to give a definitive answer to the question of whether there is a case-related problem. Nevertheless, looking at the results on the test items, it seems plausible to conclude that the problem is not case-related, since success rates are too low, even at advanced levels, and the accusative *–I* and its absence and the associated contexts and meanings are taught at very early stages in Turkish language classes, and one would expect at least advanced-level learners to not have such significant (and consistent) problems with it. Further, even if the problem was found to be case-related, the conclusions drawn from the current article would stay unchanged with respect to the IH and the interfaces involved. After all, pragmatics is still a factor only in learning L2 English, and even if English-speaking learners of Turkish had a case-related problem to resolve, i.e., learning that Turkish bare nouns are unspecific only (and cannot be specific), Turkish-speaking learners of English would similarly need to learn that English bare nouns could, unlike Turkish, be both specific and unspecific, a difference between the two languages that is much like the scopal differences that have been proposed to exist in this article. Still, English L2ers do much better than Turkish L2ers, a difference despite the involvement of pragmatics for English L2ers.

possibility that L2 learners have access to UG, which is a position the IH remains agnostic to (Sorace 2011).

In conclusion, it looks like what seems to be an interface phenomenon can be attributed, at least in some cases, to simple facts such as whether positive evidence is available to learners or not. Finally, not all external interfaces are equally problematic; the interface of semantics and syntax with pragmatics was not problematic for Turkish-speaking learners of English in our study. And not all internal interfaces are equally unproblematic; the semantics-syntax interface here was problematic for English-speaking learners of Turkish, though not for Turkish-speaking learners of English.

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