Processing of Comitative Constructions in Turkish

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Background. Comitative constructions can be interpreted symmetrically, as a coordinated structure, or asymmetrically, as containing a prepositional phrase (Dalrymple et al., 1998; Feldman, 2001; Stassen, 2000). In Turkish, if a comitative construction is interpreted as a coordinated structure, then the phrase Deniz *ile* Bilge means 'Deniz and Bilge' denotes a plural entity, which if used as the subject behaves accordingly, i.e., induces plural agreement on the predicate interpreted inferred as symmetrical comitatives as in (1). If, on the other hand, a comitative construction is interpreted as a prepositional phrase, then Bilge *ile* Deniz means 'Deniz, with Bilge. In this case, only the noun Deniz is the subject of the sentence, while Bilge ile 'with Bilge' acts as a modifier seen as asymmetrical comitatives as in (2).

- (1) Deniz ve/ile Bilge sinema-ya git-ti-ler. (symmetrical, mismatch condition)
 Deniz with Bilge cinema-DAT go-PAST-3PL
 'Deniz and Bilge went to cinema.'
- (2) Deniz ile Bilge sinema-ya git-ti-∅. (asymmetrical, match condition) Deniz.NOM with Bilge cinema-DAT go-PAST-3SG 'Deniz went to cinema with Bilge.'

The interesting thing is that the only difference between sentences in (1) and (2) is the agreement on the verb and it cannot be understood whether *ile* 'with' heads a prepositional phrase (Deniz *ile* Bilge 'Deniz with Bilge') or functions as a coordinator (Deniz *ile* Bilge 'Deniz and Bilge') until the end of the sentence. This creates an ambiguity for the readers, which is only resolved once the verb is encountered. This experiment tested which reading is easier to process in Turkish by manipulating number agreement on the verb: singular agreement indicated that the comitative is analyzed as a prepositional phrase, which is symmetrical reading (a match condition) and plural agreement analyzed as a coordinated structure, asymmetrical one (a mismatch condition). Given that Turkish is an AND-language, which has a coordinator other than *ile* 'with', I expect that *ile* 'with' is primarily interpreted as a preposition, and only then as a coordinator because of the presence of a true coordinator ve 'and' in Turkish. Therefore, I expect the comitative construction featuring *ile* 'with' to be processed faster than the comitative coordination structure. This study is unique since there is no literature examining comitative constructions in Turkish from experimental perspective.

Methods. In present study, data were collected from 134 Turkish Learners via a self-paced reading task on lbex Farm. The experimental items were distributed across two lists with 12 experimental items each, mixed with 12 filler items as in (3). Every sentence consisted of eight regions as in (4). Although the agreement is on the verb, and so it is the critical region, but the verb differed in length. Therefore, Regions 6 and 7 are taken as critical regions.

Results and Discussion. Two different paired samples t-tests were conducted. In Region 6, there was a significant difference between singular agreement and plural agreement (t(129)=3.3, p=.001). It demonstrated that plural agreement (symmetrical) is easier to process than singular agreement (asymmetrical). On the other hand, the same difference did not occur on Region 7 between singular agreement and plural agreement (t(129)=1.7, p=.090) in (5). It may be because the first critical region was Region 6, which is the region that the difference was expected to occur. However, in Region 7, the surprise effect created by unexpected agreement morphology may have disappeared. Therefore, my discussion will rely on the difference in Region 6. Given the predictive model of subject-verb agreement processing (Wagers et al., 2009), my results indicate that when the participants saw the comitative construction at the beginning of the sentence, they predicted to see plural morphology on the verb. This is surprising because in Turkish, there is another (unambiguous) coordinator, ve 'and'. My results may show that the adjunction structure is harder to process than a complement-and-a-specifier structure, i.e., that (6a) is easier to process than (6b) adopted from Zhang (2007). To conclude, the present study demonstrated that comitative construction subjects were mostly interpreted as a coordinate structure, which is surprising because Turkish has bona fide coordination headed by the conjunction ve 'and'.

(3) Sample items. (a: asymmetrical comitatives, b: symmetrical comitatives) (24 test items across 2 lists and 12 filler items).

Sen-le o karanlık sokak-tan geç-iyor.du (a. asymmetrical) /geç-iyor.du.nuz (b. symmetrical) street-ABL pass-PROG.PAST-3SG / You-with he/she dark pass-PROG.PAST-3PL uzun zaman önce.

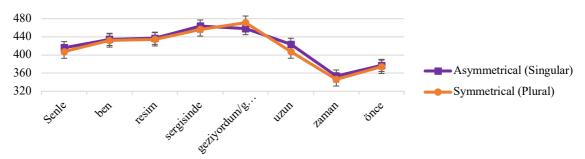
long time ago

'He was passing through the dark street with you a long time ago.' (Asymmetrical) 'You and he were passing through the dark street a long time ago.' (Symmetrical)

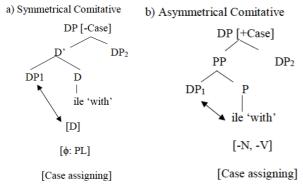
(4) Regions of the Items with Comitative Construction

| (1) Rogiono di uno itamo mun dominativo donoti dotton | | | | | | | |
|---|-----|----------|------------|--------------------|-------------|--------------|-------|
| R1 | R2 | R3 | R4 | R5 | <u>R6</u> | <u>R7</u> | R8 |
| Benle | sen | karanlık | sokak-tan | geç-(i)yor.du-k | <u>uzun</u> | <u>zaman</u> | önce. |
| with me | you | dark | street-ABL | pass-PROG.PAST-1PL | long | <u>time</u> | ago |
| 'You and I were passing through the dark street a long time ago.' | | | | | | | |

(5) Mean Reading Times of Comitative Construction with Symmetrical (Plural) and Asymmetrical (Singular) Agreement



(6) The syntactic representations of symmetrical and asymmetrical comitatives adopted from Zhang (2007):



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