

## Syntax of Head-Final Relative Clauses – The Case of Turkish

1 Relative clauses (RCs) in head-final languages pose several problems, both theoretical and empirical. In this paper, based on Turkish, a strictly head-final language, we propose a solution that circumvents these problems, is compatible with language processing facts, and is supported by independent typological evidence, too. In particular, we argue, on an Antisymmetric approach to syntax (Kayne, 1994), that the modifier clause of an RC should be generated in a way similar to the derivation of Kaynean prenominal adjectival modifiers, and should then be moved to a SpecCP position, as in (1). The problems mentioned in this paper, then, become irrelevant, whether they are empirical or theoretical.

2 The main empirical problem with respect to head-final RCs is that they do not always conform to the processing facts and language universals that have been found to be relevant in the case of head-initial languages such as English. For example, one of the crucial findings of acquisition research on RCs is that subject RCs, such as (2), in head-initial languages are easier to process, for both L1 & L2 learners, than direct object RCs such as (3) (e.g. Gibson, 1998; Izumi, 2003). Studies focusing on head-final RCs, on the other hand, presented conflicting results: Some found object RCs to be more difficult (e.g. Nakamura & Miyamoto, 2003 for L1 Japanese; O’Grady, Lee, & Choo, 2003 for L2 Korean) whereas others reported subject RCs to be more difficult (e.g. Ishizuka, Nakatani & Gibson, 2006 for L1 Japanese; Ozcelik, 2006 for L2 Turkish). If, however, the structure proposed here, in (1), is adopted, these problems become irrelevant, for there would then be no difference between head-final subject and object RCs in terms of both structural and linear distance between the head and the trace: In both subject and object RCs (See (4a) and (4b)), the head NP (e.g. *man* in (4)) would be the subject of the IP. The difference between subject and object RCs would, then, be only in terms of the suffixes that are attached to either type. Therefore, this analysis predicts that syntactic processing considerations would not be a significant factor in determining whether subject or object RCs will be more difficult in head final languages, implying that neither subject nor object RCs should systematically be easier, which is what previous research has found. Instead, variance, if any, should be caused by other cues, such as morphology and prosody: For example, in Turkish, a genitive subject is used in most subordinate clauses, and object RCs, too, abide by this pattern, whereas this is not true for subject RCs (See (4)). Listeners, then, will have a better cue as to (4b) having a subordinate (object) RC, whereas (4a) might be mistaken for a main clause or other structures, as a result of certain garden path effects.

3. The current account seems to also circumvent most of the theoretical problems that are normally associated with the Antisymmetry account of head-final RCs, for the relevant conditions causing those problems (e.g. Relativized Minimality and Binding Condition) are not any more violated: This is because most of the problems with head-final RCs on a Kaynean account are created by the movement of IP into the SpecDP position, as in (5). This movement, for which there seems to be no clear independent evidence, is an additional movement in head-final RCs. (Only the head NP moves, to the SpecCP position, in head-initial languages.) One problem that this movement creates is that the trace of the already-moved NP is left unbound, violating the Proper Binding Condition (Fiengo, 1977). Another problem is that the movement of IP to SpecDP, an A’ position, occurs by skipping another A’ position, SpecCP, thereby violating the Relativized Minimality (Rizzi, 1990). Yet another problem comes from the fact that the moved IP is outside the c-command domain of D; this predicts that Turkish RCs should be non-restrictive when, in fact, Turkish only has restrictive RCs (Meral, 2004). None of these is a problem for the current account, for no such IP-to-SpecDP movement exists.

4. Finally, this account is also supported by other independent evidence: First, the modifier clause of the RC in most head-final languages could also be used predicatively, as in (6), in a way analogous to prenominal adjectival modifiers on Kayne’s account. Second, suffixes that derive RCs in several head-final languages are adjectivizing/nominalizing affixes that also appear in simple (non-relativized) nouns and adjectives, suggesting that these RCs are not finite, which, in turn, means that they might not even be “clauses,” let alone being “relative” clauses in the traditional sense. This latter point is supported also by the fact that RCs of the type in Turkish, such as (4a) and (4b), could have either a present or a past tense interpretation depending on context. All in all, it seems that the structure in (1) is the correct syntactic representation of RCs in head-final languages.

**Examples:**

- (1) [DP[D the [CP [XP]<sub>i</sub> [C] [IP [NP man] [I ti] ]]]] (XP is the modifier clause of the RC.)
- (2) the man who sees the woman
- (3) the man whom the woman sees
- (4) a. [kadın-ı gör-en]XP [adam]NP or [kadın-Ø gör-en]XP [adam]  
woman-Acc see-RC.s man woman-Acc(null) see-RC.s man  
“the man that sees the woman” “the man that sees a woman”  
b. [kadın-ın gör-düğü]XP [adam]NP  
woman-Gen see-RC.o man  
“the man that the woman sees”
- (5) [DP [IP ... [e]<sub>i</sub> ... ]<sub>j</sub> [D [CP [NP]<sub>i</sub> [C [e]<sub>j</sub>]]]]
- (6) Compare with (4): a. [adam]NP [kadın-ı gör-en]XP  
b. [adam]NP [kadın-ın gör-düğü]XP

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