

Below you will find a list of examples from English of various syntactic constraints attested in a considerable number of natural languages. Your task is to briefly investigate whether a listed constraint applies in Turkish as well. Commentary on why this or that constraint applies or does not apply in Turkish is welcome but not necessary.

Many constraints listed below are bans on extraction. Extraction is the general name for the phenomenon where a constituent occurs at a different place than it is “normally” found. A typical case is relativization.

- (1) a. The cat chased the dog.
- b. The dog [which<sub>i</sub> the cat chased  $t_i$ ].
- c. The cat [which<sub>i</sub>  $t_i$  chased the dog.]

In the above example an object and a subject relative clause is formed from a simple sentence. Extraction phenomenon is usually depicted via “trace” notation as above.

**Complex NP Constraint.** It is not possible to extract from inside a complex noun phrase. A complex NP is one of the two kinds:

An NP modified by a relative clause:

- (2) The dog that the cat chased.

An NP that takes a *that* complement.

- (3) The fact that the cat chased the dog.

Here are some examples that show the constraint in action. First an NP with a *that* complement:

- (4) a. John believes the rumor that Mary had finally confided to Alex.
- b. \*Who<sub>i</sub> does John believe the rumor that Mary had finally confided to  $t_i$ ?
- c. \*Who<sub>i</sub> does John believe the rumor that  $t_i$  had finally confided to Alex?
- d. \*Whose rumor<sub>i</sub> does John believe  $t_i$  that Mary had finally confided to Alex?

Compare this with the following, where there is no complex NP:

- (5) a. John believes Mary had finally confided to Alex.
- b. Who<sub>i</sub> does John believe Mary had finally confided to  $t_i$ ?
- c. Who<sub>i</sub> does John believe  $t_i$  had finally confided to Alex?

Now an NP modified by a relative clause:

- (6) a. John envies the woman who visits Carol.
- b. \*Who<sub>i</sub> does John envy the woman who visits  $t_i$ ?
- c. \*Who<sub>i</sub> does John envy  $t_i$  who visits Carol?
- d. \*Which woman<sub>i</sub> does John envy  $t_i$  who visits Carol?

**Sentential Subject Constraint.** Constituents in a sentential subject cannot be extracted.

- (7) a. [That John called Mary] pleased his mother.
- b. \*Who<sub>i</sub> did [that John called  $t_i$ ] please his mother?
- c. \*Who<sub>i</sub> did [that  $t_i$  called Mary] please his mother?
- (8) a. [For John to win the race] is very likely.
- b. \*What<sub>i</sub> is [for John to win  $t_i$ ] very likely?

- c. \*Who<sub>i</sub> is [for  $t_i$  to win the race] very likely?
- (9) a. [Whether Jane will want to see John] is not clear.  
b. \*Who<sub>i</sub> is [whether Jane will want to see  $t_i$ ] not clear?  
c. \*Who<sub>i</sub> is [whether  $t_i$  will want to see John] not clear?

**Coordinate Structure Constraint.** Conjuncts of a coordination are forbidden for extraction, unless you extract from both conjuncts.

- (10) a. John wants to see a concert and a movie.  
b. \*What<sub>i</sub> does John want to see a concert and  $t_i$ ?  
c. \*What<sub>i</sub> does John want to see  $t_i$  and a movie?
- (11) a. John likes Mary and hates Harry.  
b. \*Who<sub>i</sub> does John like  $t_i$  and hate(s) Harry?  
c. \*Who<sub>i</sub> does John like Mary and hate(s)  $t_i$ ?
- (12) a. John wrote the article and Mary corrected it.  
b. \*What<sub>i</sub> did John write  $t_i$  and Mary corrected it.  
c. What<sub>i</sub> did John write  $t_i$  and Mary corrected  $t_i$ .

**Adjuncts.** Certain adjuncts do not allow extraction.

- (13) a. John went to New York in order to see Jane.  
b. \*Who<sub>i</sub> did John go to New York in order to see  $t_i$ ?
- (14) a. John called Mary because he needed a friend.  
b. \*What<sub>i</sub> did John call Mary because he needed  $t_i$ ?

**Wh-islands.** It is not possible to extract out of clauses introduced by a *wh*-word, like *where*, *whether*, *what* etc.

- (15) a. John asked whether Harry dates Mary.  
b. \*Who<sub>i</sub> did John ask whether Harry dates  $t_i$ ?  
c. \*Who<sub>i</sub> did John ask whether  $t_i$  dates Mary?
- (16) a. John wondered who owns the car in front of the house.  
b. \*Which car<sub>i</sub> did John wonder who owns  $t_i$ ?
- (17) a. John knows why Harry called Mary.  
b. \*Who<sub>i</sub> does John know why Harry called  $t_i$ ?  
c. \*Who<sub>i</sub> does John know why  $t_i$  called Mary?

**Cross-over Phenomena.** The grammaticality of a sentence tends to degrade if an extracted item “crosses over” another item co-referential with it. Co-indexation in examples designate co-reference – items with the same index refer to the same individual in the world. Take:

- (18) a. He<sub>i</sub> called his<sub>i</sub> lawyer?  
b. Who<sub>i</sub> [ $t_i$  called his<sub>i</sub> lawyer]?

There is no cross-over effect as the extracted item, *he*, while moving out of its clause and becoming *who*, does not cross-over any other item referring to the same individual that it refers to.

Now take:

- (19) a. His<sub>i</sub> lawyer called him<sub>i</sub>?  
b. \*Who<sub>i</sub> did [his<sub>i</sub> lawyer call *t<sub>i</sub>*]?

This cannot mean a question with the indicated indices – namely *Who is that individual such that his lawyer called him?*

Likewise:

- (20) a. I think he<sub>i</sub> loves his<sub>i</sub> father.  
b. Who<sub>i</sub> do you think *t<sub>i</sub>* loves his father?  
(21) a. I think his father loves him.  
b. \*Who<sub>i</sub> do you think his<sub>i</sub> father loves *t<sub>i</sub>*?