

A syntactic analysis of conditionals in Persian

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Conditionals are linguistic expressions expressed by means of syntactically complex forms which consist of a conditional clause (protasis or antecedent) and a main clause (apodosis or consequent). Although conditionals have been one of the most significant topics in the areas of semantics, pragmatics and philosophy of language, and have been studied within different approaches (Kratzer 1986), they have not been analyzed syntactically in detail within Chomsky's minimalist framework, specifically in Persian.

Syntactically, there is a debate as to how these expressions are constructed. Two distinct views on the structural position of conditionals are discussed: The first view, due to Bhatt and Pancheva (2006), an adjunction-based approach (proposed as equivalent to external merge), claims that the sentence-initial conditional clause in English adjoins to TP and in some cases to CP (when preceding wh-arguments in questions), whereas the sentence-final conditional clause involves VP-adjunction to the right. The second view, due to Valmala (2009), posits that Spanish and English sentence-initial conditional clauses are in the Spec of TopP or FocP, and the sentence-final conditional clauses in the Spec of a functional projection, CondP. Additionally, his analysis is based on movement (proposed as equivalent to internal merge) in some cases. He suggests that the sentence-initial conditional clause to have a topic or focus interpretation, and it is usually derived via movement from a post verbal position to the front of the sentence.

In this study, we examine Persian conditionals in order to understand how these constructions are structured, and whether or not the existing theories can account for them. Conditionals in Persian are typically introduced by the lexically independent conditional marker *ægar* 'if' or more informally *æge*. The conditional clause can occur in the initial (1a), final position (1b) and to a limited extent in the middle of the sentence (1c).

- (1) a. [æge æli-ro be mædrese be-fres-i], puja be to dʒajeze mi-d-e.
if Ali-Ac to school Sub-send-2sg Pouya to you prize Asp-give-3sg
'If you send Ali to school, Pouya will give you a prize.'
b. puja be to dʒajeze mi-d-e [æge æli-ro be mædrese be-fres-i].
c. puja [æge æli-ro be mædrese be-fres-i] be to dʒajeze mi-d-e.

We will take into account independent syntactic properties such as the interaction of scrambling and principle C of Binding Theory, the structural position of focused wh-arguments and vP deletion to show that the adjunction-based approach best accounts for the data in Persian. Specifically, this study offers support for the theory of conditionals proposed by Bhatt and Pancheva (2006) over the other approach advocated by Valmala (2009).

The adjunction-based theory accounts for all the data while the movement-based analysis cannot account for sentence-initial conditional clauses containing a referential expression, coindexed with a pronominal in the matrix clause. Taking into account the interaction of scrambling and principle C of Binding Theory, the sentence in (2) would be predicted to be ill-formed under the movement-based analysis due to the principle C violation, contrary to facts. If the conditional clause were generated in a position following the main clause and then moved to its surface position, it should be ungrammatical as reconstruction is well-known to be obligatory for principle C (See Iatridou 1991, Valmala 2009) and scrambling does not bleed principle C in Persian (Karimi, 2005: 179). Thus, the sentence-initial conditional clause is externally merged as an adjunct to TP which is not c-commanded by the subject in the main clause.

- (2) [_{CP}æge æli_i dir be-res-e] [_{TP} un_iba qətar mi-a-d].
if Ali late Sub-arrive-3sg he by train Asp-come-3sg
'If Ali arrives late, he will come by train.'

Moreover, taking into account a matrix clause containing a focused wh-argument (occupying the Spec of FocP upon movement in Persian (Karimi 2005)), preceded by a conditional clause (3), it can be shown that the conditional clause in Persian is not in the Spec of FocP even if this projection has multiple specifiers as opposed to Valmala's analysis. On the other hand, Persian data is compatible with Bhatt and Pancheva's (2006) analysis since the relative order of the conditional clause and wh-argument in sentence (3) can support FocP-adjunction of the conditional clause. They propose that the conditional is adjoined to CP when preceding wh-arguments in English. I suggest that in Persian when the sentence-initial conditional precedes the focused wh-arguments, it adjoins to FocP.

- (3) [_{FocP} [_{CP} æge e'tesab be-š-e] [_{FocP} ki-ro [_{TP} moteæssefane [_{TP} una exraj
if strike Sub-become-3sg who-Ac unfortunately they fire
mi-kon-æn]]]]]?
Asp-do-3pl

'Who will they unfortunately fire if there is a strike?'

Sentence-final conditional clauses involve vP-adjunction as supported by the Principle C of the Binding Theory and the vP deletion test. Since the adjunction-based approach accounted for the sentence-initial conditionals, to maintain consistency I extend the adjunction-based approach to sentence-final conditionals as well. The asymmetry observed in the behavior of sentence-initial (2) and sentence-final (4) conditional clauses with respect to the possibility of having a referential expression in the adverbial clause coreferential with a pronominal subject in the main clause leads to the conclusion that the ill-formedness of sentence (4) is due to a principle C violation because the pronominal subject of the main clause binds the subject of the embedded clause adjoined to vP.

- (4) * un_i sær-e æli dad mi-zæn-e æge mæryæm_i gorosne baš-e.
She head-Ez Ali yell Asp-hit-3sg if Maryam hungry Sub.be-3sg
* 'She_i yells at Ali if Maryam_i is hungry.'

Moreover, a vP deletion shows the sentence-final conditional clause is in a position lower than NegP, the most likely candidate being the vP. In (5), all constituents below the NegP, including the conditional clause are elided, leaving the subject and the head Neg intact.

- (5) puja æli-ro be park mi-bær-e [æge un xub dærs be-xun-e]
Pouya Ali-Ac to park Asp-take-3sg if he well lessonSub-study.3sg
æmma mæn næ.
but I not.

'Pouya will take Ali_i to the park if he_i studies well, but I won't ~~take Ali to the park if he studies well.~~'

Finally, we show that our proposal for the TP and FocP adjunction of sentence-initial conditional clauses can account for the grammaticality and ungrammaticality of all the sentences in which the conditional clause appears in the medial position. The relative ordering between the conditional clause and the constituents preceding it is due to the scrambling of syntactic constituents over the sentence-initial conditional clause, leading to the conclusion that the merge position of the apparent sentence-medial conditional clause is in no way different from the sentence-initial position.

This study fills a gap in the literature with respect to Persian syntax. More generally, it contributes to the study of conditionals in general as well as to our understanding of how conditionals are structured in human language.

References: Bhatt, R. & R. Pancheva., 2006. Conditionals. In M. Everaert, M. van Riemsdijk, H. (eds.), *The Blackwell Companion to Syntax* 1, 638–687. Boston & Oxford: Blackwell. Iatridou, S., 1991. Topics in conditionals. MA: Massachusetts Institute of Technology dissertation. Distributed by MIT Working Papers in Linguistics. Karimi, S., 2005. *A minimalist approach to scrambling: Evidence from Persian*. The Hague: Mouton. Kratzer, A., 1986. Conditionals. In *Papers from the Twenty Second Regional Meeting of the Chicago Linguistics Society*, 1–15, Chicago: Chicago Linguistics Society. Valmala, V., 2009. On the position of central adverbial clauses. *ASJU* 43(1-2), 951–970.