

On the Syntax of Why-stripping in Persian

1. Overview: In this work, we provide an account of *why-stripping* in Persian (1), in which there is a *wh*-phrase *cherā* ‘why’ and a non-*wh*-phrase remnant (e.g. *chips*). This structure looks similar to *sluicing* with *why*, as in (2), in which there is only a *wh*-phrase remnant *cherā* ‘why’. The question is whether *why* in these constructions has the same/different properties. We argue that *why* in these constructions has distinct properties and the mechanism of deriving the sentences in (1) and (2) is different. We propose that in *why-stripping* (1) *why* functions as ‘how come’ and is base generated in the Spec of Int(errogative)P (Rizzi 2001), in the left periphery. In addition, the non-*wh*-phrase remnant, *chips*, which carries a contrastive focus interpretation (represented in CAPS) moves to the Spec of FocP, before the rest of the clause is elided, as illustrated in (3). On the other hand, in *sluicing* (2), as argued by Toosarvandani (2008), *why* functions as a regular *wh*-phrase in *wh*-questions and is focus fronted to the Spec of FocP, prior to TP ellipsis, as in (4).

(1) Ayda chips khord, vali ne-midoon-am **cherā** CHIPS (Why-stripping)
 Ayda chips ate.3SG but NEG-know-1SG why chips
 ‘Ayda ate chips but I don’t know why chips (but not something else).’

(2) Ayda chips khord, vali ne-midoon-am **cherā** (Sluicing)
 Ayda chips ate.3SG but NEG-know-1SG why
 ‘Ayda ate chips but I don’t know why.’

(3) Ayda chips khord vali ne-midoon-am [_{IntP} **cherā** [_{FocP} CHIPS_i [_{TP} ~~chips khord~~ _{t_i]]] (Why-stripping)}

(4) Ayda chips khord vali ne-midoon-am [_{FocP} **cherā**_i [_{TP} ~~chips khord~~ _{t_i]] (Sluicing)}

In section 2, we discuss the evidence for the base-generation of *why* in *why-stripping* and the movement of *why* in *sluicing*. In section 3, we provide two pieces of evidence for the movement of the non-*wh*-phrase in *why-stripping*. In section 4, we discuss the cross-linguistic implications of Persian *why-stripping*, and show how Persian data helps determine the position of *why* in *why-stripping* in different languages.

2. Base-generation of *why* in *why-stripping*: As discussed in Collins (1991), *why* in interrogatives has a scope ambiguity with the quantifier in the subject position (5a); however, *how come* does not (5b). This can be explained if *why* in (5a) has a trace below *every* while *how come* in (5b) does not. This indicates that *how come*, but not *why*, is base-generated in its surface position and doesn’t arrive at its surface position via movement.

(5) a. Why does everyone hate John? (why>every, every>why)
 b. How come everyone hates John? (how come>every, *every>how come)

We find the same pattern in Persian *sluicing* with *why* (6) and *why-stripping* (7). *Sluicing* with *why* (6) allows pair-list interpretation while *why-stripping* (7) does not. The fact that *why-stripping* doesn’t have a scope ambiguity with the quantifier indicates that *why* in this structure behaves similar to *how come* (5b) and is base-generated in its surface position while *why* in *sluicing* (6) arrives at its surface position via movement, as shown in (4).

(6) hame az Ali badeshoon miyād vali ne-midoon-am cherā (why>every, every>why)
 everyone from Ali dislike come.3SG but NEG-know-1SG why
 ‘Everyone hates Ali but I don’t know why.’

- a. There is one reason for the whole group of people that hate Ali.
 b. For each person x, there is a reason that x hates Ali.

(7) hame az Ali badeshoon miyād vali ne-midoon-am cherā az ALI (why>every, *every>why)
 everyone from Ali dislike come.3SG but NEG-know-1SG why from Ali
 ‘Everyone hates Ali but I don’t know why Ali (but not someone else).’

Based on the data above, the characteristics of *sluicing* with *why* and *why-stripping* are as follows:

(8) Structure	Focused non- <i>wh</i> -phrase	Source of <i>why</i>	Interpretation
1. <i>Sluicing</i> with <i>why</i>	Incompatible	Movement	Allows pair-list interpretation
2. <i>Why-stripping</i>	Compatible	Base-generation	Disallows pair-list interpretation

3. Non-*wh*-phrase remnant movement in why-stripping: Based on Merchant’s (2001) FORM-IDENTITY GENERALIZATIONS, if the remnant arrives at its surface position via movement, it should behave like its non-elliptical counterpart. Two pieces of evidence which shows that the non-*wh*-phrase remnant in why-stripping arrives at its surface position via movement come from case matching effect and preposition stranding, which I discuss below.

Case-matching effect: if a DP in a non-elliptical structure carries a case marking (9a), it should also have the same case marking when why-stripping occurs (9b); the remnant must have the case marker *-ro*.

- (9) a. [Araz*(-ro)]_i Ayda t_i be mehmooni davat kard?
 Araz-ACC Ayda to party invitation did.3SG
 ‘Did Ayda invite Araz to the party?’
- b. Ayda Araz-ro be mehmooni davat kard vali nemidoonam cherā ARAZ*(-ro)
 Ayda Araz-ACC to party invitation did.3SG but NEG-know-1SG why Araz-ACC
 ‘Ayda invited Araz to the party but I don’t know why Araz (but not someone else).’

Preposition stranding: in Persian, a preposition must be piedpiped along with the DP (10a), and stranding it yields an ungrammatical sentence (10b). Thus, the preposition must be piedpiped in why-stripping (11).

- (10) a. cherā [be Araz]_i Ayda t_i chips dād? b. *cherā Araz_i Ayda be t_i chips dād?
 why to Araz Ayda chips gave.3SG why Araz Ayda to chips gave.3SG
 ‘Why did Ayda gave chips to Araz?’

- (11) Ayda be Araz chips dād vali ne-midoon-am cherā *(BE) ARAZ
 Ayda to Araz chips gave.3SG but NEG-know-1SG why to Araz
 ‘Ayda gave chips to Araz but I don’t know why to Araz (but not to someone else).’

4. Cross-linguistic implications in why-stripping: Our proposal that the non-*wh*-phrase remnant in why-stripping moves to the Spec of FocP is in line with the previous studies on English and Romance languages (see also Rasekhi 2018 for a similar proposal for ellipsis structures in Persian). However, our analysis diverges from their proposal in that *why* in why-stripping is base-generated in ForceP (Nakao et al. 2012, Ortega-Santos et al. 2014) or it can be either in ForceP or Int(errogative)P (Yoshida et al. 2015). Our proposal that *why* in Persian why-stripping is base-generated in Int(errogative)P is supported by examples such as (12) in which we can have an overt complementizer *ke* ‘that’ preceding *why*.

- (12) Ayda chips khord vali ne-midoon-am [_{ForceP} ke [_{IntP} cherā [_{FocP} CHIPS_i [_{TP} t_i ~~khord~~]]]]
 Ayda chips ate.3SG but NEG-know-1SG that why chips ate.3SG
 ‘Ayda ate chips but I don’t know why chips (but not something else).’

Unlike Persian (12), in English and Romance languages, it is not possible for the complementizer to precede *why*, as the English example in (13) illustrates. This indicates that *why* in English (and Romance languages) can’t be base-generated in Int(errogative)P but rather it has to be in ForceP (14). We show that (dis)allowing the complementizer to precede *why* helps determine the exact position in which *why* is base-generated.

- (13) John ate chips, but I wonder (*that) why chips.

- (14) John ate chips, but I wonder [_{ForceP} why [_{FocP} chips_i [_{TP} John ate t_i]]]

5. Conclusion: Persian provides cross linguistic support for the proposal that there are two types of *why*. One functions as a regular *wh*-phrase in *wh*-questions (e.g. in sluicing) and undergoes movement, while the other functions as ‘how come’ (e.g. in why-stripping) and is base generated in the CP domain. In languages that allow the complementizer to precede *why* in why-stripping (e.g. Persian), *why* is base-generated in Int(errogative)P, while in languages that disallow this (e.g. English), *why* is base-generated in ForceP.

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