

Two types of *why* in syntax: Evidence from 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. Sluicing with <i>why</i>	Incompatible	Movement	Allows pair-list interpretation
2. Why-stripping	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. 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.

Selected references: Merchant, J. (2001). *The syntax of silence*, Oxford University Press. Nakao, Ch., Yoshida, M., Ortega-Santos, I. (2012). On the syntax of why-stripping. *Proceedings of the 30th WCCFL*. Ortega-Santos, I., Yoshida, M., Nakao, Chi. (2014). On ellipsis structures involving a *wh*-remnant and a non-*wh*-remnant simultaneously. *Lingua* 138, 55-85. Rizzi, L. (2001). On the position Int(errogative) in the left periphery of the clause. *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, 287-296. Yoshida, M., Nakao, Chi., Ortega-Santos, I. (2015). The syntax of why-stripping. *NLLT* 33, 323-370.