# *Wh*-doubling in Northern Italian Dialects: External Merge and FormCopy

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**Introduction** ― Northern Italian Dialects (NID) exhibit *wh*-doubling in interrogative constructions (1) (e.g., Poletto & Pollock 2009, Manzini & Savoia 2011, a.o.). Though the construction features the spell-out of multiple *wh*-elements ― i.e., one in the scope position, the other in situ ―, it is interpreted as a single-constituent interrogative. Doubling is mostly restricted to θ-arguments and *wh*-adverbs 'where' and 'how'; it is generally ruled out with 'complex' *wh*-phrases (e.g., 'why', 'which NP') in all NID. An important generalization emerging from the available data is that doubling overwhelmingly involves an asymmetry in the form of the *wh*-element: a clitic/'short'/'weak' form must precede the non-clitic/'long'/'strong' form (often marked via a tonic ɛ-morphology) as in (1) and (2) (Olgiate), where the spell-out of KPs/PPs is restricted to the lower *wh*-element. This order cannot be reversed.

(1)  *se/'koza*   fa    la    *ku'zɛ*        (2)   *se*    l    fet    *kuŋ ku'zɛ*
     what       does   she    what                 what   it   you.do with what
     'What does she do?'                          'What do you do it with?'

There is significant variation with respect to the set of *wh*-elements doubling can apply to (cf. Bonan 2019: §1.2. for a survey). Some NID form *wh*-doubling with an invariant *what*-like element in scope position (3) (Passirano).

(3)  *ke*    ni:-f       *ɛn'doɛ* 'oter?
     what   come.2Pl     where   you
     'Where are you going?'

*Wh*-doubling is mainly found in matrix interrogatives, but it is also attested in embedded environments, both in long-distance construals (4) and in indirect interrogatives (5) (Strozza).

(4)  *'koza* 'pɛnsɛt   (k) el 'faɣɛ *ko'zɛ*     (5)   so    'mia *'kome* i    fa *ko'mɛ*
     what  think.you  that he do   what              know.I NEG  how   they do how
     'What do you think he's doing?'                'I don't know how they're doing it.'

Theoretically, *wh*-doubling raises the following questions: (A) how do the two *wh*-elements come to share the same θ-role, giving rise to a single-constituent *wh*-interrogative; and (B) why is there an asymmetry in the morphophonological shape of the *wh*-elements. The referenced literature agrees that an answer to (B) warrants an analysis whereby the two *wh*-elements are generated independently (rather than constituting a chain formed by Internal Merge (IM)). Poletto & Pollock assume that the two *wh*-elements are both generated in the same phrase in argumental position ('big DP' approach); (remnant) movement operations would then derive the correct word orders. Manzini & Savoia instead reject such an approach on grounds of both its complexity and specific predictions, and propose that the *wh*-elements are each generated in their surface position (the left-peripheral *wh* a scope-marker, the lower one a contentful *wh*-element) and connected at LF via interpretive rules. Our analysis is closer in spirit to Manzini & Savoia's, though we modify it and recast it under the derivational framework of Chomsky (2021).

**Analysis** ― . The derivation of a *wh*-doubling configuration runs as follows. First, the lower *wh*-element (notated as *wh²*) undergoes EM with the main predicate (cf. Chomsky's (2021: 30) Duality of Semantics), as in (6a), where it receives its θ-role. We follow a suggestion by Chomsky (2013, 2015) and assume that *wh*-elements carry an unvalued Force (F) feature that receives different interpretations depending on its structural configuration. Next, the v phase-head is merged (6b), and the *wh*-element is displaced onto its edge, as required by standard formulations of the Phase Impenetrability Condition. At this point the question arises why this *wh*-element could not undergo further IM to the scope position (leading to regular *wh*-fronting), especially accepting Chomsky's (2021) argument that IM restricts Search and is therefore more economical than External Merge (EM). We assume with

Manzini (2014), Bonan (2021) that the lower *wh* enters into a Focus configuration. Following moreover Belletti (2008), Focus can be licensed in a low, right peripheral position in Romance — at the edge of the v-phase. We crucially assume that in doubling varieties Focus licensing leads to the 'freezing' of *wh* in that position. Technically, we implement this intuition via the labeling formalization of Chomsky (2013, 2015): by entering into agreement, the F feature labels the v-phase (6c); *wh* thus becomes unavailable for subsequent IM on pains of destroying the labeling (or 'criterial', Rizzi 2015) configuration.

(6)  a.  $\{V, wh^2_F\}$;  b. $\{v_F, \{V, wh^2_F\}\}$;  c. $\{_{FP} wh^2_F, v_F \{V, \cancel{wh_F}\}\}$

Let us point out that the derivation *wh*-doubling is so far identical to that of *wh*-in situ in other languages, which has also been argued to involve Focus freezing at the edge of v (e.g., Manetta 2010, Bonan 2021). The difference with *wh*-in situ is that doubling grammars resort to EM of an additional *wh*-element ($wh^1$) in order to mark interrogative scope (7), as presumably required by language-specific externalization parameters. This additional merger constitutes a case of EM for scope-discourse properties licensed in A'-positions, an option in fact contemplated by Chomsky (2021: fn. 44). Note that the treatment of $wh_1$ as a scope-marker is empirically warranted in particular in view of cases like (3).

(7)  $\{_{FP} wh^1_F, C_F \{... \{_{FP} wh^1_F, v \{V, \cancel{wh_2}\}\}\}\}$

However, while $wh^1$ can be interpreted as an interrogative (F may be valued as Q in (7)), it is not assigned a θ-role at this point of the derivation. This problem can be overcome via the operation FormCopy (FC) (Chomsky 2021: 17), which assigns the copy relation to the elements $wh^1$, $wh^2$ on grounds of some shared feature. The copy pair $<wh^1, wh^2>$ is thus formed. By virtue of FC, $wh^1$ can now be *θ-linked* (Chomsky 2021: 26) to the θ-role assigner of $wh^2$; in other words, the copy pair $<wh^1, wh^2>$ comes to share the same θ-role, though its members were independently generated. The construction thus receives the correct interpretation as a single-constituent question by means of FC, providing an answer to (A) above. How can FC apply in the case of long-distance construals (4) assuming with Chomsky that FC applies at the phase level? A simple solution is to assume that the $wh^1$ first undergoes EM at the edge of the embedded C-phase, where FC (and θ-linking) can unproblematically apply to the pair $<wh^1, wh^2>$. Moreover, we assume that labeling by F does not take place at this point; $wh^1$ is therefore not frozen and undergoes IM to the edge of matrix C, as in (8).

(8)  $\{_{FP} wh^1_F, C_F \{... \{_{CP} \cancel{wh^1_F}, C \{_{FP} wh^2_F, v_F \{V, \cancel{wh^2_F}\}\}\}\}\}$

With respect to question (B), the asymmetry can be obtained via the assumption that $wh^1$ is a scope-marker, an element cross-linguistically known to be morphologically impoverished with respect to the contentful *wh*-expression (cf. e.g. Fanselow 2017). In other words, the higher *wh*-element is expected to have impoverished morphology if its role in the derivation is merely that of providing a label to the edge of (interrogative) C, unlike the lower *wh*-element, which must also carry argumental information (e.g. phi, case). We may moreover assume that Focus freezing can be expressed on the PF/EXT side with an enriched morphology on $wh^2$ (ε-morphology is standardly treated as a Focus particle). The setting of further parametric options dictate the availability of different patterns of doubling, which time allowing we discuss also in relation to Germanic style *wh*-doubling (e.g. Barbiers et al. 2010, den Dikken 2018).

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