

**Language dominance, structural complexity and variation:
Competing factors in the acceptability of Italian embedded *wh*-questions**

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We investigate which factors lead to apparent differences between heritage and monolingual grammars, focussing on embedded *wh*-questions in heritage Italian in Germany. In matrix *wh*-questions, Italian and German both require adjacency of the *wh*-phrase (WH) and the inflected verb:

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|-----|----------------|--------------------|------------|-----------------|---------------------|
| (1) | a. <i>Cosa</i> | {* <i>Gianni</i> } | <i>ha</i> | <i>cucinato</i> | {* <i>Gianni</i> }? |
| | what | G. | AUX.3SG | cook-PTCP | G. |
| | b. <i>Was</i> | {* <i>Hans</i> } | <i>hat</i> | { <i>Hans</i> } | <i>gekocht</i> ? |
| | what | H. | AUX.3SG | H. | cook-PTCP |
- ‘What did John cook?’

In embedded *wh*-questions, this requirement disappears in German (see 2), while being maintained in Italian. As shown in (3a), adjacency is the unmarked option, whereas lack thereof yields marginal sentences (see 3b):

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| (2) | <i>Maria weiß nicht, was Hans gekocht hat.</i> | |
| | M. knows NEG what H. cook-PTCP AUX.3SG | |
| | ‘Mary doesn't know what John has cooked.’ | |
| (3) | a. <i>Maria non sa cosa ha cucinato Gianni.</i> | |
| | M. NEG knows what AUX.IND.3SG cook-PTCP G. | |
| | b. <i>??Maria non sa cosa Gianni ha cucinato.</i> | |
| | M. NEG knows what G. AUX.IND.3SG cook-PTCP | |

However, structures with a pre- verbal subject like (3b) can be licensed either by subjunctive mood (4a) (cf. Rizzi 1996) or if a constituent is left in the VP (4b) (cf. Poletto & Pollock 2000).

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| (4) | a. <i>Maria non sa cosa Gianni abbia cucinato.</i> | |
| | M. NEG knows what G. AUX.SBJV.3SG cook-PTCP | |
| | ‘Mary doesn't know what John has cooked.’ | |
| | b. <i>Maria non sa cosa Gianni ha cucinato per cena.</i> | |
| | M. NEG knows what G. AUX.IND.3SG cook-PTCP for dinner | |
| | ‘Mary doesn't know what John has cooked for dinner.’ | |

Embedded *wh*-questions thus display a range of alternative derivations in Italian, but are strictly uniform in German – an asymmetry that may facilitate cross-linguistic influence (CLI) (e.g. Hulk & Müller 2000).

Three factors have been considered: (i) language dominance, (ii) structural complexity – defined as the number of required syntactic operations (Merge, Move and Agree) and (iii) variation (e.g., Jakubowicz 2011, Yip & Matthews 2007). If (i) is crucial, only unbalanced HSs with low proficiency in Italian will deviate from monolinguals. If (ii) is crucial, complex structural types should be particularly vulnerable, irrespectively of dominance. If (iii) is crucial, HSs should display the same patterns of variation as monolinguals, independently of dominance and complexity.

We tested 20 adult HSs of Italian in Germany and 20 Italian monolinguals using a bi-modal acceptability judgement task (AJT). The task consisted of 48 items: 12 test items (2 types), 12 control items (2 types) and 24 fillers. Test items involved embedded *wh*-questions with post-verbal (type #1) and pre-verbal subjects (type #2) respectively. For each type, there were 6 structural conditions differing in complexity: Verb class (copula, unaccusative, unergative and transitive) and thematic type of WH (argument vs. adjunct) were considered, with copulas representing the least complex and transitive verbs the most complex type. Only “bare” *wh*-phrases (like *dove* ‘where’) were used. We controlled for Italian-type interrogative inversion in matrix questions, i.e. movement of the entire TP instead of T° to the C-domain (type #3, see 5) and lack thereof in embedded *wh*-questions with “complex” WHs like *perché* ‘why’ (type #4, see 6) (Rizzi 1996, 2006; Bocci & Pozzan 2014). Fillers were either grammatical (type #5) or ungrammatical (type #6) in both Italian and German.

(5) **Ha Paola trovato le chiavi?*
 AUX.IND.3SG P. find-PTCP the keys
 ‘Did Paola find the keys?’

(6) *Mara si chiede perché Thomas è andato al mare.*
 M. REFL.3 asks why T. AUX.IND.3SG go-PTCP-MSG to-the sea
 ‘Mara wonders why Thomas went to the seaside.’

The results show that the group of monolingual Italian speakers does not perform significantly better than the group of Italian HSs (83% vs. 81% appropriate responses). Language dominance –operationalised as performance on a lexical decision task– did not correlate with the AJT results, contrary to (i). Moreover, there were more appropriate responses in the transitive condition (84%) than in the unergative and unaccusative conditions (71% and 66% respectively). This is inconsistent with (ii), which predicts that more complex structures (e.g. transitives, involving checking of two structural Cases) are more vulnerable than less complex ones (e.g. unergatives and unaccusatives, with only one structural Case). Interestingly, wherever monolinguals judge categorically, HSs are similarly categorical: ungrammatical items in the copula-condition were rejected by all speakers. In addition, both groups were inclined to accept pre-verbal Subjects in structures with adjunct-WHs (e.g. 62% of accepted items in the condition unaccusative-adjunct). The latter two findings suggest that the range of variation is governed by the same structural constraints in both groups, supporting (iii). Overall, our findings suggest that the syntax of HSs is relatively resistant to CLI, and that we should be wary of interpreting all deviations from monolingual norms as indicators of “incompleteness” or “deviance” (e.g. Pascual y Cabo & Rothman 2012, Putnam & Sánchez 2013).

References

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