Specificity vs. lexical restriction: inspecting D-linking in *wh*-islands

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Background. Intervention-based accounts adopting (featural) Relativized Minimality (fRM, Starke, 2001; Rizzi, 1990; Friedmann et al., 2009; Grillo, 2008) interpret the alleged amelioration of D(iscourse)-linking (Pesetsky, 1987; Warren & Gibson, 2002) in the extraction of *wh*-elements from argumental *wh*-islands, (1a) vs. (1), as a result of the featural endowment of the extracted *wh*- ([+wh], [+N]), which is richer than the intervening *who* ([+wh]) due to its lexical restriction:

(1) a. **What* do you wonder [*who* broke __]?
    b. [(?)]*Which glass* do you wonder [*who* broke __]?

A recent attempt to disentangle the role of D-linking and [+N] in English and Italian compared extraction of *what N* vs. *which N,* assuming that (i) D-linking may be operationalized as specificity (*à la* Diesing, 1992) and (ii) only *which N* may felicitously refer to a specific set of referents (Chesi et al., 2023). While no effect of D-linking emerged, suggesting a peripheral role of interpretive properties in modulating syntactic violations and indirectly buttressing a fRM-based account, intuitions on the actual interpretive contrast between the two *wh*- are not sharp. Moreover, the Italian *wh*- tested, *che N* (*what N*) and *quale N* (*which N*), significantly differ in their morphology and their compatibility with partitive PPs, suggesting possible confounds of deeper morphosyntactic properties. **Research question.** This work refines the above paradigm by testing minimal pairs that better flesh out the specific vs. non-specific contrast while keeping *wh*- morphology comparable. We focused on Italian *quali N* (*which N*) and *quanti N* (*how many N*), i.e., two *wh*-items that allow for a lexical restriction (2a) and may take a partitive PP (2b), selected for by a covert (pro)nominal element coindexed with the NP inside the PP (Cardinaletti & Giusti, 2006; Falco & Zamparelli, 2019). Being covert, such element is not lexically-restricted.

(2) a. *Quali/Quanti libri hai letto?*
    Which/How many books did you read?
    b. *Quali/Quanti* [e$_i$] *[di [questi libri]$_i$] hai letto?*
    Which/How many of these books did you read?

A contrast in terms of specificity (i.e., D-linking) emerges between the two, especially with partitive: while prototypically D-linked *quali* needs the definition of a specific domain of quantification, as witnessed by the infelicity of non-specific answers (3a), the same does not hold for *quanti*, bearing no special requirement for its domain restriction (3b):

(3) a. *Quali dei libri hai letto*? #Nessuno/#Dei romanzi.
    Which books did you read? None/Some novels.
    b. *Quanti dei libri* hai letto? Nessuno/Tre.
    How many books did you read? None/Three.

If specificity, i.e., D-linking, mitigates superiority, we expect (i) extraction of *quali N* from a *wh*-island to be significantly more acceptable than *quanti N* and (ii) partitive *wh*- to better extract across the board, due to its natural (but not obligatory) association with specificity (von Heusinger, 2001). On the contrary, if an (overt) NP is necessary at featural level to ameliorate *wh*-extraction, then (iii) no significant difference is predicted between *quali N* and *quanti N* and (iv) extraction of partitive *wh*- with a covert (pro)nominal complement is expected to degrade acceptability. **Novel evidence.** Two acceptability judgment tasks (Likert scale 1-7) were administered to Italian native speakers. In Experiment 1, 40 participants (age range=21-60, M=31.77, SD=9.63) were tested with a 2x2 design manipulating *wh*- type (*quali,* D-linked vs. *quanti,* non-D-linked) and extraction type (intervention vs. no-intervention). In Experiment 2, a preliminary group of 31 participants (age range=22-62, M=33.65, SD=12.34) was tested with

a 2x2x2 design, crossing *wh-* type (*quali,* D-linked vs. *quanti,* non-D-linked), overt partitivity (*PP* vs. *no-PP*) and extraction type (*intervention* vs. *no-intervention*).

(4) Experiment 1

    a. *Quanti/Quali libri* pensi *che* abbia letto?   [*non/D-l., no-interv.*]
    'How many/Which books do you think that he read?'
    b. *Quanti/Quali libri* ti chiedi *chi* abbia letto?   [*non/D-l., interv.*]
    'How many/Which books do you wonder who read?'

(5) Experiment 2

    a. *Quanti/Quali libri/di questi libri* pensi *che* abbia letto? [*non/D-l., no-/PP, no-interv.*]
    'How many/Which books/of these books do you think that he read?'
    b. *Quanti/Quali libri/di questi libri* ti chiedi *chi* abbia letto? [*non/D-l., no-/PP, interv.*]
    'How many/Which books/of these books do you wonder who read?'

LMMs were used to analyze acceptability. The manipulated variables and their interactions were used as predictors, and random slopes were included for subjects and items. In both experiments, we observed a significant effect of extraction type (Exp.1: *Est*=-2.205, *SE*=0.031, *t*=-71.81, *p*<.001; Exp2: *Est*=-4.317, *SE*=0.244, *t*=-17.704, *p*<.001), and no effect of *wh-* type (Exp.1: *Est*= 0.029, *SE*=0.031, *t*=0.94, *p*=.348; Exp2: *Est*=-0.0002, *SE*=0.145, *z*=-0.001, *p*=.999). Exp. 2 reported an effect of partitivity (*Est*=-0.365, *SE*=0.145, *t*=-2.515, *p*=.012) and its interaction with extraction (*Est*=0.477, *SE*=0.205, *t*=2.324, *p*=.020) driven by no-intervention only, with overt PP worse than no PP. **Discussion.** The absence of a significant effect of *wh-* type in intervention conditions is in line with previous work; together with the lack of amelioration of partitivity, it (indirectly) weakens the relevance of interpretive features like D-linking in modulating syntactic violations (Villata & Franck, 2024; *pace* Hofmeister, 2011). At the same time, lack of an overt N on the *wh-* in the PP condition did not degrade acceptability: this result challenges the idea that lexical features may count as the crucial mitigating factors in structures like (1) (Friedmann et al., 2009), unless covert, abstract nominals (Cardinaletti & Giusti, 2006) featurally contribute with a [+N], too. Further contrasts between pre- and post- nominal partitives (*which books of these* vs *which of these books*) are currently being collected to tackle this issue. Finally, the interaction between overt PP and no-intervention (crucially bleached by intervention) may indeed be an effect of the specificity induced by partitive, clashing with the out-of-the-blue presentation of the experimental stimuli.
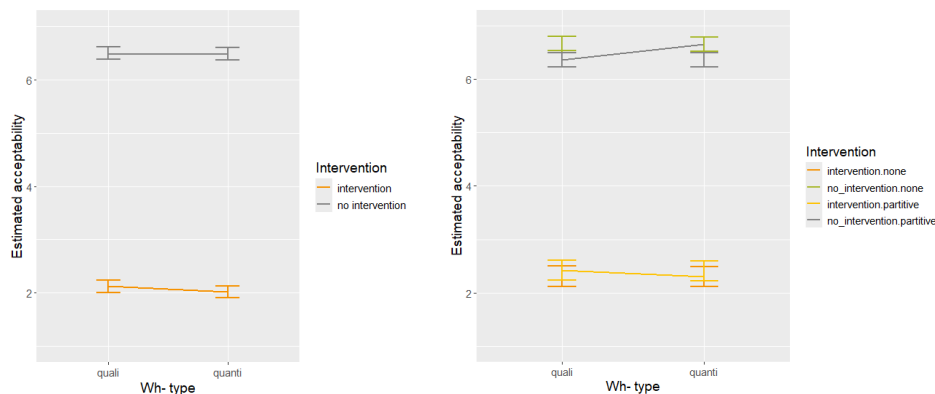

Fig. 1: Estimated acceptability for Exp.1 (left) and Exp.2 (right) respectively based on model interactions between *wh-* type x extraction type and *wh-* type x extraction type x overt partitivity. Error bars indicate Standard Errors.

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