Local modeling of the gap/resumptive complementarity under top-down Case attraction

Doreen Georgi (Ecole Normale Supérieure)&Martin Salzmann (Universität Leipzig)doreen.georgi@ens.frmartin.salzmann@uni-leipzig.de

1. Intro. Deriving the complementarity between gaps and resumptives holding in some languages presents a challenge to local derivational bottom-up approaches because the choice between the 2 strategies has to be made at a point where the relevant information (e.g., islands) is not available. Even though there are a few local solutions to this problem (e.g. Müller 2014), we will show, based on a hitherto unnoticed *matching effect*, that *all* previous approaches to the complementarity have to resort to non-local devices. We will argue that together with the novel proposal that the distribution of gaps vs. resumptives should be reanalyzed in terms of Case attraction, top-down derivation allows for the choice to be made locally. **2. Data.** Languages that form relative clauses (RC) without relative pronouns (RelP) often use resumptives in the relativization of oblique relations. Swiss German for instance uses gap relatives for SU and DO but requires resumptives for IOs (van Riemsdijk 1989):

(1) a. emBueb won i (*en) mag_{acc} b. deBueb won i *(en) $hilf_{dat}$ the.DAT boyCI him likethe.NOM boyCI he.DAT help'to the boy I like' (DO)'the boy I help' (IO)

What has gone largely unnoticed is that in some of these languages, resumption is subject to a matching effect: the resumptive is omitted if the head noun (HN) bears the same Case, see Hodler (1969) (cf. Cole 1976, Joseph 1980, Gračanin-Yuksek 2013 on Hebrew, Greek, Croatian): (2) Lüte, [won es _ / *ene guet geit_{dat}], darf me nid söttig Sachen uftische_{dat}.

people.**DAT** C it they.DAT good goes may one not such things confront with

'One shouldn't confront people who are doing well with such things.' *Bernese German* In (2), the choice between gap/resumptive must be made when V merges with the relative operator (RelOP). But the information necessary to make the correct choice (the Case of the HN) is not yet available. Previous approaches usually motivate dative resumptives by treating IOs as PPs = islands. Crucially, however, the matching effect shows that dative resumption is unrelated to islandhood: the Case of the HN should not influence the category of IOs.

3. Claim. The choice between gap/resumptive can be made locally if (i) their distribution is reanalyzed in terms of Case attraction and (ii) attraction is modeled by means of top-down derivation. The matching effect will fall out automatically as a subcase of Case attraction.

4. Case attraction and resumption. We reanalyze the distribution of gaps/resumptives as Case attraction because the 2 constructions share 2 fundamental properties: (i) the form of an element inside the RC depends on the Case of the HN. In resumption, it is the choice between gap/resumptive, while in Case attraction it is the Case of RelP that depends on the Case of HN; in (3), RelP bears the matrix Case and not the RC-internal Case, viz., *gen* instead of *nom*: (3) daz er [...] alles des verplac_{gen} [des im ze schaden mohte_{nom} komen]

that he all that.GEN abandoned which.GEN he.DAT to damage might come 'that he abandoned all that might cause damage to him' *M* High German Bianchi 2000

'that he abandoned all that might cause damage to him' *M. High German*, Bianchi 2000 (ii) Both constructions are subject to a hierarchy effect: Case attraction is only possible if the matrix Case is more oblique than (or as oblique as) the RC-Case (Grosu 1994): gen > dat > acc > nom. Gaps are possible in exactly the same context in a language like Swiss German. Resumptives are obligatory exactly when Case attraction is blocked, i.e. if the Case of HN is less oblique than the RC Case. *In a nutshell*, we propose that Case attraction in languages like Swiss German is obligatory: RelOP takes over the Case of the HN. Crucially, by means of topdown derivation, Case attraction happens early; RelOP then moves to its θ -position where the relevant information for the choice gap/resumptive (Case of HN) is thus *locally* available. *4.1. Assumptions*. Following Richards (1999), Phillips (2003), Guilliot (2006), Bianchi and Chesi (2014), the structure unfolds incrementally from top to bottom, constituents are base-generated in their surface position; arguments move downwards to check θ -features of v/V. AGREE: (i) We adopt a Checking approach: DPs start out with pre-specified Case-values *u*Case; (ii) *u*Case on DP requires a c-commanding Case-probe with a corresponding [*Case*]-feature. (iii) There are 2 ways of probe feature discharge: (a) Checking = Agree between a DP with an unchecked *u*Case and a probe [*Case*]; this requires identity of features. (b) Matching = Agree between a DP with a checked *u*Case and a probe [*Case*]; matching is possible if the probe has a *subset* of the features of the goal. Crucially, Matching allows the RelOP to agree both with the RC-internal probe and the head noun in Case.

CASE-AGREE HEAD NOUN-RELOP: N bears a [*Case*]-probe that is checked by the RelOP. Since checking requires identity of features, this leads to attraction \rightarrow the RelOP bears the matrix Case and takes this information into the RC when moving to its θ -position.

CASE FEATURE DECOMPOSITION: following the standard strategy to implement hierarchy effects (cf. Béjar and Řezáč 2009 on person), Case features are decomposed into bundles of abstract privative features. The more oblique a Case, the more features it bears: nom=[α], acc=[α , β], dat=[α , β , γ], gen=[α , β , γ , δ] etc.

4.2. *Gap-derivation*. (4) shows the derivation of (1a): the matrix Case-probe checks Case with D, D with N and N with RelOP. \rightarrow Since checking requires identical features, RelOP bears the matrix Case. On its way to the θ -position, RelOP makes a stopover in vP. Here, the RC Case-probe on v can be discharged under matching because it has a subset [α , β] of the features of the RelOP [α , β , γ] (RelOP = sister of v at this stage of the derivation). Finally, RelOP moves to its θ -position to check V's θ -feature and the derivation converges. Since RelOP = zero \rightarrow gap

(4) $\begin{bmatrix} V_{\text{[dat]}} & V_{\text{[dat]}}$

4.3. *The matching effect.* The derivation of (2) is essentially the same, the only difference being that the RC-Case is [*dat*]. Since RelOP bears *dat* as well, the RC-probe [*dat*] can be discharged under matching as in (4) (feature identity also constitutes a subset). Since RelOP = zero \rightarrow gap. Crucially, matching in resumption is thus just a subcase of Case attraction.

4.4. *Resumptive derivation.* In the derivation of (1b), the RC-probe cannot be discharged under matching because it has a superset of the features of the RelOP (which bears the less oblique matrix Case). In languages with Case attraction, this leads to a crash; such languages can usually resort to a non-attraction derivation (without a Case-probe on HN; this is also the configuration in languages without any attraction like Standard German). For the resumption languages under discussion, we assume that the Case-probe on HN is obligatory. The crucial difference is that resumption functions as a repair: The resumptive discharges the RC-probe. Binding of the resumptive through RelOP ensures agreement in ϕ -features:

(5)
$$\begin{bmatrix} c_{P} \operatorname{RelOP}_{[\operatorname{acc}]} C \begin{bmatrix} c_{P} \operatorname{SU} T \begin{bmatrix} v_{P} < \operatorname{SU} > \begin{bmatrix} v' < \operatorname{RelOP} > \\ w & \operatorname{move} \end{bmatrix} \begin{bmatrix} v' & \operatorname{res}_{\operatorname{dat}} \begin{bmatrix} v' & v & \operatorname{dat} \end{bmatrix} \begin{bmatrix} v_{P} & V < \operatorname{res}_{[\operatorname{dat}]} \end{bmatrix} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

What we propose covertly for Swiss German is overt in Greek free relatives: The RelOP bears the matrix Case while the resumptive bears the RC-Case (Alexiadou and Varlokosta 2007: 229). **5. Last resort + extensions.** Crucially, the choice between gap/resumptive can be made locally at the vP-cycle: Resumptives are not part of the numeration (Aoun et al. 2001) and can only be inserted as a last resort if there are unchecked features. Since RelOP can check the RC-Case in (1a), (2), insertion is blocked by inclusiveness. \rightarrow No global comparison is needed. • Our approach extends to resumptives inside islands: RelOP is stuck outside the island so that it cannot check the RC-internal Case- $/\theta$ -features. Again, a resumptive functions as a repair. This implies that resumption in islands does not involve movement. There is independent evidence for this: the matching effect does not obtain in islands, a resumptive is necessary. • Syncretism effects have been taken as evidence for a PF-approach to Case attraction. (3) presents counter-evidence: There is attraction despite RC-extraposition, which should remove the RC from the matrix Case-probe under a PF-approach. To capture syncretism effects in attraction, we instead adopt syntax-internal enrichment of RelOP (cf. Keine 2010).