Varieties of (In-)Subordination: The Case of V2-Relatives

In this presentation I would like to explore to what extent current discourse representation theories are able to deepen our understanding of so-called "Embedded Root Phenomena" (ERPs), as originally studied by Hooper & Thompson (1973) and Green (1976), and reviewed in Heycock (2002). The special interest of ERPs consists in the fact that their distribution is determined "not only by syntactic forms, and semantic functions, but also by pragmatic functions" (Green 1976:397). However, a proper theory is still outstanding almost 30 years after it was suggested that "it may be necessary to examine the phenomena case by case" (Green 1976:394).

Exactly this kind of case study will be carried out here, concentrating on a relative-like ERP-type construction from Dutch and German previously studied by Schuetze-Coburn (1984), Brandt (1990), Gärtner (2001; 2002), and Zwart (2003) and called (for the sake of concreteness) "V2-relatives" (V2Rs). Their particular interest lies in the fact that V2Rs, like the one in (1b), provide an intermediate case between modification by restrictive (V-final) relative clauses, (1a), and bi-clausal structures involving cross-sentential anaphora (1c).

(1)   a.   Das Blatt hat eine Seite (/), die ganz schwarz <u>ist</u>.
                the sheet has one side   that entirely black is
                "That sheet of paper has one side that is entirely black"
        b.   Das Blatt hat eine Seite (/), die <u>ist</u> ganz schwarz.
        c. #   Das Blatt hat eine Seite (\). Die <u>ist</u> ganz schwarz.

V2Rs share with (1a) the property of "intonational integration" into their host clause [(/) = non-final boundary marking] and the semantic effect of "restrictivity." This manifests itself in the fact that (1a) and (1b) do not, while (1c) does trigger Horn-scale implicature (2).

(2)   The sheet of paper has no more than one side

Pursuing the intuition that (1b) is a hybridization of (1a) and (1c) - this is confirmed by the status of pronouns stemming from the relative/demonstrative intersection - one can try and build an analysis starting from either end. Thus, I will compare and contrast a

(3)   a. *Paratactic Analysis* (PA): built on cross-sentential anaphora and a construction
                specific "integration-rule", and a
        b. *Hypotactic Analysis* (HA): built on standard relative clause syntax plus
                extraposition, supplemented with a principle of "proto-force projection"

The respective structures for PA and HA are given in rather sketchy form in (4).

(4)   a. [$_{\pi P}$ [$_{CP1}$ Das Blatt hat eine Seite (/)] [$_{\pi'}$ $\pi°_{REL}$ [$_{CP2}$ die <u>ist</u> ganz schwarz]]]   [PA]
        b. [$_{CP1}$ Das Blatt hat [$_{DP}$ eine Seite (/) [$_{CP2}$ die <u>ist</u> ganz schwarz]$^{\alpha}$]]$^{\alpha}$ [HA]

The construction specific rule for (4a) reduces CP1 in Spec, πP to a DRS first, and then, suspending evaluation, adds CP2 such that the variable introduced by *die* must be identified with an accessible discourse referent. This is sketched in (5).

(5)   a. $\langle \{x,y\}; \text{BLATT}(x), \text{SEITE}(y), \text{POSSESS}(x,y) \rangle$
        b. $\langle \{x,y,u\}; \text{BLATT}(x), \text{SEITE}(y), \text{POSSESS}(x,y), u=y, \text{GANZ\_SCHWARZ}(u) \rangle$

Semantically this correctly predicts that inaccessible referents like the ones introduced by negative and universal quantifiers (among many others) in (6) aren't available, and V2R-modification fails.

(6)   a. * Das Blatt hat keine Seite (/), die ist ganz schwarz
        b. * Das Blatt hat jede Seite(/), die ist ganz schwarz

Syntactically, PA properly predicts the restriction that V2Rs have to strictly occur at the right edge of their host clause.

On the negative side, PA is unable to predict a right-roof effect, familiar from relative-clause extraposition and quite orthogonal to the cross-sentential anaphora approach. This, by the way, casts serious doubts on the generalized anaphora approach by Wittenburg (1987).

Likewise, PA is unable to predict "modal subordination failure" of V2R modification in (7).

(7)   a.   *   Maria möchte einen Fisch fangen (/), den <u>könnte</u> sie essen.
              Maria wants a   fish   catch   that could   she eat
              "Mary wants to catch a fish, which she could (then) eat"
        b.   Maria möchte einen Fisch fangen (\). Den <u>könnte</u> sie essen.

This alone warrants a closer look at HA, supplemented with the so-called "assertional proto-force projection" rules, provided in (8). The intuition that embedded V2 phenomena are sensitive to illocutionary force (potential) has repeatedly been pursued (cf. e.g. de Haan 2001; Wechsler 1991), although, following Green (1976), I prefer to adopt a somewhat more indirect approach. (This will have to be reviewed in the light of Krifka (2001)).

(8)   *Assertional Proto-Force Projection*
        a. Unembedded assertional proto-force translates into assertional force (potential).
        b. Embedded assertional proto-force can be "absorbed" by assertional force (potential) if there is no intervener.
        c. Embedded assertional proto-force can be "absorbed" on arguments of predicates that denote acts of assertion etc.
        d. Non-absorbed assertional proto-force leads to semantic/pragmatic deviance.

Considering modal operators as "interveners" in the required sense, an analysis of the *de re* effect in (9) can be provided on the basis of (8), as illustrated in (10) vs. (11).

(9)   a. [Hans soll einen Fisch fangen [der ist kariert]$^{\alpha}$]$^{\alpha}$

(10)   a. $K^a = \langle \{h, x\}; \text{FISCH}(x), K^a = \langle u; u = x, \text{KARIERT}(u)\rangle, \square K = \langle \; ; \text{FANG}(h,x)\rangle\rangle$
        b. $\text{ASS}(\langle \{h, x\}; \text{FISCH}(x), K^a = \langle u; u = x, \text{KARIERT}(u)\rangle, \square K = \langle \; ; \text{FANG}(h,x)\rangle\rangle)$ |(8a)
        c. $\text{ASS}(\langle \{h, x, u \}; \text{FISCH}(x), u = x, \text{KARIERT}(u), \square K = \langle \; ; \text{FANG}(h,x)\rangle\rangle)$ |(8b)

(11)   a. $K^a = \langle h; \square K = \langle x; \text{FISCH}(x), \text{FANG}(h,x), K^a = \langle u; u = x, \text{KARIERT}(u)\rangle\rangle\rangle$
        b. $\text{ASS}(\langle h; \square K = \langle x; \text{FISCH}(x), \text{FANG}(h,x), K^a = \langle u; u = x, \text{KARIERT}(u)\rangle\rangle\rangle)$ |(8a)
        c. */ # ASS (. . . $\square$ (. . . K^a . . .)) |(8d)

The idea is that German (indicative) V2-clauses possess assertional proto-force, annotated as superscript α, which, quite in analogy to presuppositions (cf. van der Sandt 1992) introduces a specialized type of DRS, K^a. The concept of "absorption" is inspired by the approach to "quantifier-composition" in Higginbotham & May (1981). In (10b), this leads to DRS-merger. The remainder of this presentation will be devoted to providing a less procedural interpretation of "assertional proto-force," as well as studying two further cases of V2-Relative modification involving quantifiers like *many*, and "modal anaphora," which put PA and HA to further non-trivial tests.

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