## **Comparative perspectives on extraction from EV2** Fabian Heck Universität Leipzig

**Background**: While embedded verb-second clauses (EV2s) in Scandinavian are opaque for extraction (Holmberg 1986, Fanselow 1991, Kroch and Iatridou 1992, Vikner 1995, Hrafnbjargarson et al. 2010), they are transparent in Yiddish (Santorini 1989, Diesing 1990, Vikner 1995). See (1-a,b) from Danish and Yiddish, respectively.

- (1) a. \*Hvem<sub>i</sub> sagde han [ $_{CP}$  at [ $_{V2}$  disse bøger havde \_\_i ikke givet Trine ]]? who said he that these books had not given Trine 'Who did he say that had not given these books to Trine?'
  - b. Vos<sub>*i*</sub> hot er nit gevolt [ $_{CP}$  az [ $_{V2}$  in shul zoln di kinder leyenen \_*i* ]]? what has he not wanted that in school should the children read 'What did he not want that the children should read in school?'

Extraction from EV2 in German (Haider 1993) and Dinka (van Urk 2015) is possible only if  $\text{SpecC}_{[+V2]}$  of EV2 is not overtly filled ((2-a,b) for German, (3-a,b) for Dinka). Moreover, EV2 in German is selectively opaque: Extraction is only possible if it targets  $\text{SpecC}_{[+V2]}$ , not if it targets  $\text{SpecC}_{[-V2]}$  (Tappe 1981, Grewendorf 1988, Sternefeld 1989, Staudacher 1990), see (2-a,c).

(2)Wer<sub>*i*</sub> glaubst du  $[v_2 \__i hat \__i Recht]$ ? a. who think you has right 'Who do you think is right?' b. \*Wer<sub>i</sub> glaubst du [ $_{V2}$  Recht hat \_\_i ]? who think you right has c. \*Ich weiß nicht [<sub>CP</sub> wer<sub>i</sub> du glaubst [<sub>V2</sub>  $_i$  hat  $_i$  Recht ]. I know not who you think has right 'I don't know who you think is right.' luêeel  $[_{CP} \stackrel{.}{e} [_{V2} \__i \stackrel{.}{cii}$ Bôl  $\__i$  câam ]]]? (3) Yè  $\eta \circ [_{CP} Op_i y u u k u]$ a. HAB.1PL say.NF C PRF.OV Bol.GEN be what 'What do we say Bol has eaten?' \_\_i câam ]]]? b. \*Yè nó  $[_{CP} Op_i yùukù$ luêeel  $[_{CP} \stackrel{.}{e} _{P} _{V2} B \hat{o} ]$ cé be what HAB.1PL say.NF С Bol.GEN PRF.SV eat.NF 'What do we say Bol has eaten?'

**Horizons:** Keine (2020) accounts for German (2-a-c) by combining the theory of horizons with the Phase Impenetrability Condition (PIC, Chomsky 2000, 2001). If category H is a horizon for a probe P, then H prevents P from searching past H. (2-b) follows from the PIC. (2-a,c) follow if the *wh*-probe on  $C_{[-V2]}$  has EV2 as its horizon while the probe on  $C_{[+V2]}$  does not. In a first step, I show that the same horizon setting explains why extraction from EV2 in Scandinavian is generally impossible, even in cases where  $\text{Spec}C_{[+V2]}$  of the EV2 is not filled (Danish (4), Hrafnbjargarson et al. 2010):

(4) \*Hvem<sub>i</sub> sagde han [CP at [V2 \_i kunne \_i ikke synge denne sang ]]?
who said he that could not sing this song
'Who did he say could not sing this song?'

**Challenge**: Next, I argue that Yiddish presents a challenge to an approach to extraction from EV2 in terms of horizons (combined with PIC). In Yiddish, extraction from EV2 is possible if

the left edge of the EV2 is overtly filled (1-b) but impossible if not (5) (Vikner 1995, Diesing and Santorini 2022).

(5) \*Vos<sub>i</sub> hot er nit gevolt [<sub>CP</sub> az [<sub>V2\_i</sub> zoln di kinder leyenen\_i]]? what has he not wanted that should the children read 'What did he not want that the children should read?'

Neither the PIC nor the theory of horizons account for (5). (1-b) shows that probing into EV2 is possible in Yiddish (in contrast to Scandinavian). Thus, EV2 cannot be a horizon. As for the PIC, the embedded  $\text{SpecC}_{[+V2]}$  in (1-b) is occupied; therefore extraction is expected to be blocked; in contrast, in (5)  $\text{SpecC}_{[+V2]}$ , is accessible, and extraction should be possible.

**Assumptions:** a) The generalization (6) holds (Rizzi 2006, Bošković 2008). b) CP is a phase, the PIC holds. c) Insertion of an edge feature (EF) on a phase head H is only possible once H has saturated all its probes (Chomsky 2008).

(6) Operator freezing generalization
 An operator in a criterial Ā-position cannot undergo further Ā-movement.

**Analysis:** EV2 in Yiddish (5) requires its specifier to be filled. Accordingly, its  $C_{[+V2]}$  bears a criterial probe P. EF-insertion is only possible if P is saturated first. Therefore, the *wh*-operator *vos* 'what' in (5) must be attracted by P to the embedded SpecC<sub>[+V2]</sub>, where it is frozen in place due to (6) and thus cannot undergo further movement. Extraction of *vos* from the EV2 in one fell swoop is blocked by the PIC. The same reasoning applies to Scandinavian, above exemplified by the Danish (4).

Turning to Yiddish (1-b), there the criterial probe P is already satisfied by the category *in shul* 'in school', overtly filling SpecC<sub>[+V2]</sub>. Thus, the grammaticality of (1-b) follows if Yiddish, in contrast to German (2-b), Scandinavian (here: Danish (1-a)), and Dinka (3-b), allows for creation of a second SpecC<sub>[+V2]</sub> via EF-insertion (cf. Fanselow 2004, citing Hoge 2000, for the claim that Yiddish allows for multiple *wh*-fronting, which points to it allowing for multiple SpecC-positions).

German (2-a) cannot involve real extraction from EV2: Movement of *wer* 'who' in (2-a) via SpecC would violate (6), movement in one fell swoop the PIC. Consequently, (2-a) must now be analyzed as a V2-root clause with a parenthetical V1-fragment (*glaubst du* 'think you'), see Reis (1995a,b, 1997). (2-b) and (2-c) follow immediately (as noted by Reis): In (2-c), the parenthetical is not of the right form (V2 instead of V1); in (2-b), the root clause is not V2 (but V-final). Note in this context that Yiddish allows for complementizerless EV2. Extraction from such a EV2 (here to be reanalyzed as involving a parenthetical) is possible (Diesing and Santorini 2022, 200); see also Hrafnbjargarson et al. (2010, 301) on complementizerless EV2 in Scandinavian.

Since EV2 in Dinka is obligatorily embedded under a CP-shell, a parenthetical reanalysis of apparent extraction from EV2 in (3-a) is impossible. However, Dinka may eschew (6) because  $C_{[+V2]}$  also carries a  $\phi$ -probe (van Urk 2015). If  $\phi$  attracts an operator to SpecC<sub>[+V2]</sub>, then it is not in a criterial  $\bar{A}$ -position and may therefore undergo further  $\bar{A}$ -movement.

**Results**: a) A comprehensive account of extraction from EV2 cannot be based on horizons. b) Operator freezing combined with the PIC successfully derives all the facts discussed. c) Within Germanic, only Yiddish allows for genuine extraction from EV2 (allowing for a second SpecC<sub>[+V2]</sub>). d) Dinka also shows genuine extraction from EV2 because of an additional  $\phi$ -probe on C, not present in Germanic.