On externalization (PF after LF)

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- (1) Three components in a derivation: a) Numeration, b) Narrow Syntax (Merge), c) Externalization
- (2) Externalization: a) for sound [PF], b) for meaning [LF]
- (3) definitions
- a. Numeration: set of elements to work with (not just words!)
- b. Narrow Syntax: just Merge
- c. PF: includes inflectional morphology, prosody, linearization
- d. LF: poorly defined; should involve quantification, scope, disco/info (not QR!)
- (4) a. Numeration b. Numeration

 Narrow Syntax

 PF LF

 LF

 DE
- (5) Arguments for (4b) from:
- a. agreementb. casee. scope factsf. wh-movement
- c. ellipsis g. second position phenomena
- d. binding
- (6) Generalization
 Unexpected phenomena are semantically motivated
 (where 'semantics' includes discourse/information structure)

Agreement

- (7) Swahili (Bokamba 1980:12) (8) Ina ki-jana **a**-me-anguka alm 7-youth SU:1-PERF-fall man 'The lad fell.'
- (8) Inari Sami (Corbett 2006:146) alma-h kuá'láást-**ava**/eh onne man-NOM.PL fish-3DU/3PL today 'The (two) men are fishing today.'
- >> where does *ad sensum* agreement information enter the derivation? (>LF)

- (9) Muna (Van den Berg 1989:51)
 do/to/o-mai-ghoo ne hamai
 2SG.REALIS.UNFAM/HONOR/NEUTR-come-IO LOC where
 'Where do you come from?'
 (unfam = unfamiliar, honor = respected, neutr = unmarked)
- (10) *Maithili* (Yadav 1997:181)
- a. tõ ok-ra beta-ke dekh-l-₀hik 2:NHON 3:NHON-GEN son-OBJ see-PAST-2NHON>3NHON 'You saw his son.'
- b. toh-ər beta ok-ra dekh-l-kəuk 2:NHON-GEN son 3:NHON-OBJ see-PAST-3NHON>2NHON 'Your son saw him.'
- (11) Angika (Bhattacharya 2011:11)
- a. huni ok-raa dekh-al-ak-**hin** b. huni ok-raa dekh-al-ak-**hõ** 3:HON he-OBJ see-PAST-3SU-3OB 3:HON he-OBJ see-PAST-3SU-2:HON 'He saw him.' (to a respected person)
- (12) Ignaciano (Ott and Burke de Ott 1983:36)
- a. ma-yana b. ñí-yana 3SG.MASC-go 3SG.MASC-go 'he must go' (spoken by a male) 'he must go' (spoken by a female)
- (13) *Tsez* (Polinsky and Comrie 1999:116-117)
- a. eni-r [už-ā magalu b-āc'-ru- λ i] r-iy-xo mother $_{II}$ -DAT boy $_{I}$ -ERG bread $_{III}$:ABS III-eat-PART-NMLZ IV-know-PRES
- b. eni-r [už-ā magalu b-āc'-ru- λ i] **b**-iy-xo mother $_{II}$ -DAT boy $_{I}$ -ERG bread $_{III}$:ABS III-eat-PART-NMLZ III-know-PRES (both) 'Mother knows the boy ate the bread.'

Case

(14) normally a function of Merge (i.e. accusative = second in the syntactic hierarchy)

sensitivity to thematic role

- (15) Marathi (Pandharipande 1997:287) tyālā apghātāt dzakham dzhālī 3SG:DAT accident:LOC injury:3SG.F happen:PAST:3SG.F 'He suffered an injury in the accident.'
- (16) *Icelandic* (Thráinsson 2007:201)
- a. Haraldur borðaði fiskinn b. mig dreymdi illa Harald:NOM ate fish:DEF.ACC 1SG.ACC dreamt badly 'Harald ate the fish.'
- c. þeim finnst Haraldur skemmtilegur 3PL.DAT find Harald:NOM interesting:NOM 'They find Harald interesting.'
- d. hennar nýtur ekki við lengur 3SG.F.GEN enjoys NEG with longer 'She is no longer here (to help).'

- (17)traditionally: a function of thematic role assignment
- problem: no evidence that noun phrases "carry" a thematic role (18)(so what is thematic role assignment within minimalism?)
- Talsma (to appear, and simplified) (19)"thematic roles" are features of the verb, to be valued by argument NPs
- the interpretation that a particular argument values a particular thematic role (20)ought to take place LF (the interpretative component)

sensitivity to animacy/specificity

- *Kham* (Watters 2002:68) (21)gẽ:h-ye na-lai duhp-na-ke-o ox-ERG I-ACC butt-1SG-PERF-3SG 'The ox butted me.'
- Turkish (Kornfilt 1997:219) (22)
- kitab-ı oku-du-m a. book-ACC read-PAST-1SG 'I read the book.'
- b. ben kitap oku-du-m book read-PAST-1SG Ι 'I read books.'
- the interpretation that a particular argument is markedly animate/specific ought (23)to take place at LF

Ellipsis

- two approaches: (24)
 - a. generating empty structure, reconstruction at LF
 - b. generating full syntactic structure, failure to spell-out at PF
- a. John graduated before Bill did [$_{VP}$ --] (25)
 - b. John graduated before Bill graduated
- a. Dulles suspected everyone Angleton did [_{VP} --] (26)infinite regress >> b. Dulles suspected everyone Angleton suspected
- Tancredi (1992): deaccenting/deletion of the 'focus related topic' (FRT) (27)
 - a. (25) focus set = { John, Bill }, FRT = 'x graduated'
 - focus set = { Dulles, Angleton}, FRT = x suspected yb. (26)
- how is the distinction focus/FRT made? arguably at LF (28)
- nonconstituent FRT (29)JOHN wrote A PAPER about ellipsis and BILL A BOOK (= x wrote y about ellipsis)
- additional condition of identity (30)Biden believes in himself, even if Harris doesn't <believe in him>

Binding

- (31) realizations of reflexivity (Geniušienė 1987, Schladt 2000)
- a. reflexive marking on the verb
- b. pronominals
- c. body part noun phrases
- d. dedicated *self*-markers
- e. dedicated auxiliaries
- f. directional prepositional phrases
- g. repetition of the antecedent
- (32) binding theory is not about the distribution of pronominals, but about how to express reflexivity >> where in the model does reflexivity marking belong?
- (33) Dutch

 Kim was-t haar / zich

 Kim wash-3SG 3SG:OBJ / 3SG:REFL

 'Kim washes her / herself.'

 (34) Frisian

 Kim waske-t har

 Kim wash-3SG 3SG.OBJ

 'Kim washes her/herself.'
- (35) syntax has just an unspecified pronoun (PRON), spellout picks the right form >> reflexivity marked at LF (arguably)

sensitivity to topic status

- (36) a. * He flunked when John cheated (he \neq John)
 - b. He usually flunks when John cheats (he = John)
- (37) Bolinger (1977): violate Principle C to re-establish NP as a topic >> topicality marked at LF (arguably)

Scope

- (38) *Dutch*
- waar ziin a. Het kan niet WAAR zijn b. Het kan NIET be:INF it can:SG NEG true be:INF it can:SG NEG true 'It can't be true.' (neg > can) 'It can be false.' (can > neg)
- (39) a. What did everyone buy? (all > wh)
 - b. What did EVERYONE buy? (wh > all)
- (40) focusing of neg/QP > narrow scope >> no syntactic difference: focus feature marked at LF, feeding prosody at PF
- (41) Kukuya (Li 2024:160)
- a. ndé á-dzwí mi-féme b. ndé mí-féme ká-dzwí he SU:1.PAST-kill 4-pig he 4-pig SU:1.PAST-kill 'He killed some pigs.'
- (42) (41b) arguably different derivational history > is there ever syntactic focus mvt? (cf. Fanselow 2006)

Wh-movement

- (43) *Bijection principle*There is a bijective correspondence between variables and operators.
- (44) where do operators and variables come from?>> internal merge > Form Copy > copy 1 = operator, copy 2 = variable
- (45) a. John read **the book** b. **Which book** did John read **e** (i.e. *for which x, x a book*, John read *that book*)
- (46) alternative: merge variable in syntax, add operator at LF
- (47) syntax: John read x LF: $\langle \text{ [which book], [John read } x \text{]} \rangle$
- (48) if so, obviously PF should be after LF

second position phenomena

- (49) periphrastic past = spell-out of VERB (with its features) at PF (Zwart 2017) >> auxiliary undergoes verb-second, verb movement must be PF
- (50) Welk book **heef-t** Jan **ge-lez-en** ? which book AUX:3SG John GE-read-PART 'Which book did John read?'
- (51) wh-operator triggers verb second
 Welk boek lees-t Jan?
 which book read-3SG John
 'Which book does John read?'

Conclusion

- (52) a. syntax is just merge
 - b. > LF is the component dealing with
 - focus
 - quantification
 - operator/variable (wh)
 - scope
 - information structure
 - participant features (incl. honorificity)
 - ad sensum phenomena
 - c. these can all be shown to have an impact on spell-out
 - d. >> LF must feed PF
- (53) no need to expand clause structure at the left periphery for the stuff in (52b)

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