

NO ON BINDING

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1. Baker's generalization (Baker 1996:49)

- (1) Polysynthetic languages lack NP anaphors (in object position)
- (2) Polysynthetic (i) full argument agreement *and*
(ii) robust noun incorporation

aside

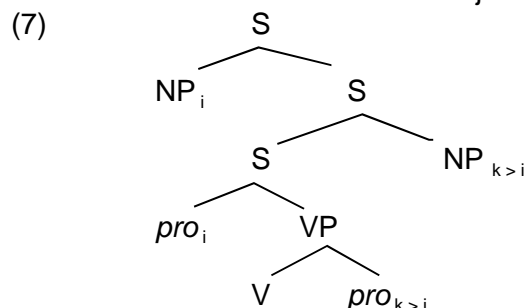
- (3) Robust (i) productive
(ii) noun root fully integrated with the verb
(iii) noun is referentially active
(iv) noun root and verb root can also be used independently

- (4) *Polysynthetic languages*
Mohawk, Tuscarora, Wichita, Kiowa, Southern Tiwa, Huauhtla Nahuatl, Gunwinjguan, Chukchee, ...

- (5) a. Sak ra-[a]tate-núhwe'-s (Mohawk)
Sak MASC.SG.SU-REFL-like-HAB
'Sak likes himself.' (Baker 1996:50)

- b. Sak ro-núhwe'-s ra-úha
Sak MASC.SG.SU/MASC.SG.OB-like-HAB MASC.SG.OB-self
'Sak likes him/*himself.' (Baker 1996:49)

- (6) Baker's explanation (i) in polysynthetic languages, NPs are adjuncts, A-positions are occupied by *pro* (co-indexed with the adjunct NPs)
(ii) object *pro* is coindexed with object-adjunct NP, object-adjunct NP is coindexed with subject-adjunct NP, subject-adjunct NP is coindexed with subject *pro* → subject and object *pro* are coindexed, **violating Principle B**.



- (8) *Binding Theory*
A. an anaphor is locally bound
B. a pronoun is locally free
C. an R-expression is free
- (9) binding = co-indexing + c-command

2. Today

A derivational approach to binding
allows us to do away with indices
(in fact with the entire Binding Theory)
forcing us to look for an alternative account

3. Derivational approach to binding (Zwart 2002)

- (10) Derivational Approach to Syntactic Relations (Epstein 1999):
grammatical relations are restricted to pairs of sisters (i.e. a function of Merge)
- (11) Two major points (i) binding should be an *automatic* result of merger
 (ii) this implies that anaphoricity is an *acquired* feature
- (12) a) pronominals enter the derivation as PRON
 b) in the course of the derivation, PRON may acquire a feature [REFLEXIVE]
 c) at Spell-Out (**morphology after syntax**), a conversion takes place from syntactic
 features to morphological forms
 d) depending on the morphological paradigms, PRON may be realized differently with
 or without the feature [REFLEXIVE]
- (13) implementation of Zwart (2002):
- a. [V [NP PRON]] → PRON realized as *himself* (reflexive)
 ↑
 |
- b. [NP V [PRON]] → PRON realizes as *him* (default)
- (14) a. Nothing forces a language to have a special realization of reflexive PRON (15)
 b. Nothing excludes multiple sources for a particular realization of PRON (16)
- (15) a. Marie skammet har → PRON realized as *har* (reflexive) (Frisian)
 Mary shames her
 'Mary is ashamed.'
- b. Marie hearde har → PRON realized as *har* (default)
 Mary heard her
 'Mary heard her/*herself.'
- (16) a. John himself presented the award (emphatic)
 b. John thought that pictures of himself would be on sale (logophoric?)
- (17) Binding now: (i) conditions for acquisition of reflexive feature → sisterhood
 (ii) realization of reflexive feature → morphology at Spell-Out
- (18) What the approach explains immediately (cf. Kayne 2002):
- a. c-command (sisterhood)
b. Principle B/C (no reflexivity, no anaphor)
c. locality (movement in (13a) is A-movement)
d. uniqueness (binary branching)

3. Problems

- (19) (i) paradoxes (20)
 (ii) the status of SE-reflexives (21)-(22)
 (iii) typological observations (23)
- (20) a. John [was arrested —] by himself
 b. John seems to himself [— to be an idiot]
- (21) *slight meaning differences* (cf. Rooryck & Van den Wyngaerd 1998) (Dutch)
- a. Jan hoorde zich (*op de radio) zingen
 John heard SE on the radio sing
 'John heard himself sing.'
- b. Jan hoorde zich-zelf (op de radio) zingen
 John heard SE-SELF on the radio sing
 'John heard himself sing on the radio.'
- (22) *nonthematic SE* (German)
- Das Buch liest sich gut
 the book reads SE good
 'The book reads well.'
- (23) Reflexivity does not have to involve pronominals (cf. Baker 1996)

4. Typological survey (cf. Geniušienė 1987, Schladt 2000)

- (24) *Expression of reflexivity:*
- | | |
|-------------------------------|-----------------------------|
| a. object pronoun (25) | g. secondary predicate (31) |
| b. object clitic (26) | h. intensifier (32) |
| c. nonthematic clitic (27) | i. adverb (33) |
| d. verbal morphology (28) | j. special auxiliary (34) |
| e. body-part noun phrase (29) | k. locative PP (35) |
| f. self noun phrase (30) | j. other object NP (36) |
- (25) *pronoun* (English)
- a. John saw **himself**
- (Evenki)
- b. bulen **me:nmi** va:-re-n
 enemy oneself kill-NFUT-3SG
 'The enemy killed himself.' (Nedjalkov 1997:109)
- (26) *clitic* (Tiri)
- a. Nŕâ dreghe-**nrî** fadre rroto
 3SG.SU injure-3SG.OB with car
 'He injured himself in a car.' (Osumi 1995:207)
- (Belorussian)
- b. Kot dzjare-**cca**
 cat scratch-REFL
 'The cat scratches.' (Geniušienė 1987:249)

- (27) *nonthematic reflexive*
- a. Das Buch liest **sich** gut (German)
the book reads SE good
'The book reads well.'
- b. Jon-as at-**si**-vedė vaik-ą j mokykl-ą (Lithuanian)
Jonas-NOM PERF-REFL-brought child-ACC to school-ACC
'Jonas brought the child with him to school.' (Geniušienė 1987:135)
- (28) *verbal morphology*
- a. Sak ra-**[a]tate**-núhwe'-s (Mohawk)
Sak MASC.SG.SU-REFL-like-HAB
'Sak likes himself.' (Baker 1996:50)
- b. Juma a-li-**ji**-pend-a (Swahili)
Juma₁ 1-PAST-REFL-love-FV
'Juma loved himself.' (Hoekstra & Dimmendaal 1983:69)
- c. səih-**si**-ke (Kham)
kill-DETRANS-PERF
'He killed himself.' (Watters 2002:242)
- (29) *body (part) NP*
- a. Nye rerem **mugun** (Bari)
he kill body
'He kills himself.' (Spagnolo 1933:139f in Schladt 2000)
- b. en tooñ-ii **koye men** (Toucouleur)
we harm-ASP heads our
'We have harmed ourselves.' (Sylla 1993:149)
- (30) *self object NP*
- a. **Abono-ra** na-noki-a-'a-ha (Paumari)
self-OBJ CAUS-see-DETRANS-ASP-THHEME
'He sees himself.' (Chapman and Derbyshire 1991:178 in Schladt 2000)
- b. Alfijadi-z **wič** güzgüd-a akwa-zwa (Lezgian)
Alfija-DAT self mirror-INESS see-IMPF
'Alfija sees herself in the mirror.' (Haspelmath 1993:185)
- (31) *secondary predicate*
- Irail **pein** duhp-irail (Ponapean)
3PL self bathe-3PL
'They bathed themselves.' (Rehg 1981:301)
- (32) *intensifier*
- ?ut **gəg-ε-ni** qəč (Zay)
3SG.MASC REFL-ACC-POSS:3SG.MASC kill:PERF:3SG.MASC
'He killed himself.' (Meyer 2005:84)
- (33) *adverb*
- Atakusa a-nö kama nia sapa **ko-pa-so-ma** (Sanuma)
gun 3SG-INST 3SG shoot reverse:DIR return-EXT-FOC-COMPL
'He shot himself with a gun.' (Borgman 1991:43 in Schladt 2000)

- (34) *special auxiliary*
Yehpe nochi (Sie)
 Y-ehpe n-ocəh-i
 3SG:DISTPAST-do.reflexively NOM-see-OB:3SG
 'He/she saw him/herself.' (Crowley 1998:127)
- (35) *locative*
 M_i-[m_i] t_i-r_è (Zande)
 I-kill on-me
 'I kill myself.' (Tucker & Bryan 1966:150 in Schladt 2000)
- (36) *other NP*
 Jussi näki **itse-nsä** (Finnish)
 Jussi:NOM see:PAST reflection-3SG.POSS
 'Jussi saw himself.' (Faltz 1985:137 in Schladt 2000)

5. Adapting the analysis

- (37) **Generalization**
 If the antecedent is the subject, reflexivity is expressed on a term of the subject's sister.
- (38) [SUBJECT John] → [PREDICATE loves PRON]_{+REFLEXIVE}
- (39) If α merges with β , β is the dependent of α (**asymmetric merger**)
- (40) Parallel with subject-verb agreement, realized
- | | |
|-------|----------------------------|
| (i) | on the verb/auxiliary |
| (ii) | on auxiliary + verb |
| (iii) | on separate pronoun/clitic |
| (iv) | on the object (!) |
- (41) a. ..dat hij in het bos wandel-t (Dutch)
 that he in the forest walk-3SG
 '...that he is walking in the forest.'
- b. Juma a-li-kuwa a-ngali a-ki-fanya kazi (Swahili)
 Juma_i 1-PAST-be 1-still 1-PROG-do work
 'Juma was still working.' (Carstens 2003:395)
- c. u bru pīn-yap psəñ u (Nongtung Khasi)
 the man cause-die snake 3SG
 'The man killed the snake.' (Nagaraja 1997:355)
- d. dios tupo-n naxo-xt'e-wal wako- (Coahuilteco)
 god the-1PL we-annoy cause
 'We annoyed God.' (Troike 1981:663)
- (42) Agreement is a property of the subject's sister (the 'predicate'), spelled out on a term of the predicate.
- (43) Similarly, (objective) case may be a property of the predicate, spelled out on a noun phrase (provided the language has a structural case opposition in the morphological paradigm)

(44) ..dat hij **hem** niet schijn-t te ken-nen (Dutch)
 that he:NOM he:ACC not seem-3SG to know-INF
 ‘..that he does not seem to know him.’ (cf. Zwart 2001)

(45) a. prynodd y ddynes **feic** / *beic (Welsh)
 bought the woman _{SM}bike / bike
 ‘the woman bought a bike’

b. roedd y ddynes yn prynu beic / *feic
 was the woman PROG buy:INF bike / _{SM}bike
 ‘the woman was buying a bike’

(46) **Reflexivity = ‘sister-orientation’ of a dependent XP**

aside

(47) close to notion of reflexivity in Reinhart & Reuland (1993), but differences:

- a. not related to argument structure (explains (48) straightforwardly)
- b. no need for Chain Condition or revised Principle C
- c. no stipulations regarding the feature content of pronouns/reflexives
- d. no claims as to total distribution of particular pronominal forms

(48) John saw [himself kiss Mary]

6. Sister-orientation

(47) core case: subject is immediately affected by the action expressed by the predicate
 (‘AGENS = PATIENS’)

- (i) predicate is detransitivized (verbal morphology, reflexive cliticization)
- (ii) predicate contains a variable element (PRON, body part NP, etc.)
- (iii) predicate contains some other device signaling orientation (adverb, secondary predicate, etc.)

(48) additional cases: subject indirectly affected by the action expressed by the predicate
 (‘AGENS = BENEFICIARY’, AGENS is otherwise involved)

- (iv) dative reflexives (49)
- (v) nonthematic reflexives (Lithuanian (27b))

(49) Juan se construyó una casa (Spanish)
 John REFL built a house
 ‘John built himself a house.’

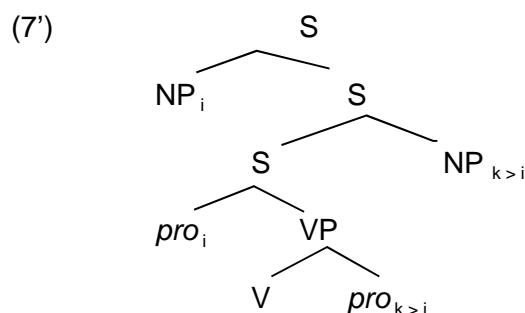
(50) *Not restricted to predication*

bewonderaar van zich-zelf (Dutch)
 admiror of SE-SELF

7. Dependency realization

(51) Which term of a dependent element D expresses the relevant feature of D?

- (52) Typical cases: a. agreement: realization on the head of D (**head-marking**)
b. case: realization on a noun phrase in D (**NP-marking**)
- (53) Typological survey: reflexivity can be expressed in both ways
- (54) Polysynthetic languages: strong preference for (perhaps uniquely) head-marking
(i) full agreement
(ii) no structural case (Baker 1996:132)
- (55) **Baker's generalization reflects a realization preference: polysynthetic languages mark dependencies on the head of the dependent.**
- (56) exceptions predicted, and found
- a. \exists tləg-e čenet-etə qoraŋə tem-nen (Chukchee)
father-ERG self-DAT reindeer slaughter-3SG.SU/3SG.OB
'The father slaughtered a reindeer for himself.' (Nedjalkov 1997:196,201 in Baker 1996)
- b. \exists tləg-e činit-kin uwik wiriŋe-rkə-nin
father-ERG self-POSS body defend-PRES-3SG.SU/3SG.OB
'The father defends himself.' (Nedjalkov 1997:190,201 in Baker 1996)
- (57) Baker's explanation: these cases do not give rise to the problematic indexing (cf. (7)).
- (58) Is (7) problematic under the dependency approach to binding?



- (59)
 - (i) NP_i marks its sister S as 'sister-oriented'
 - (ii) suppose we spell-out the sister-orientation on NP_k
 - (iii) nothing would go wrong: crucially, no (re-)indexing takes place if NP is just an element on which dependency is expressed
 - (iv) even if the pro's would get co-indexed, no principle in the grammar excludes this (there is no Principle B!)
- (60) Principle B effects: a PRON that does not realize the reflexive (sister-orientation) feature of the predicate that contains it, is realized with default morphology
- (61) *alternative scenario*
 - (i) subject pro marks its sister (VP) as 'sister-oriented'
 - (ii) since the object is a pro, VP can only realize the sister-orientation feature on its head V
 - (iii) this *explains* the head-marking preference of polysynthetic languages

8. What remains of the Binding Theory?

- (62) c-command (< sisterhood)
- (63) uniqueness (< binary branching)
- (64) Principle C: R-expressions are not PRON, so they cannot realize the feature 'sister-orientation' (unless they *contain* an open place, as in body part NPs)
- (65) *Evans cases*
Look, if everyone likes John, then surely John must like John
- (66) Crucially: not *presented* as reflexive, hence no sister-orientation
- (67) Locality: can a sister-oriented predicate realize the sister-orientation feature on a term of an embedded clause?
- (68) * John thinks that Mary likes himself
- (69) No: the NP-object realization strategy requires that the object of the predicate itself realize the dependency (to get an interpretation where the subject is affected by the action)
- (70) Room for exceptions: long distance anaphora, logophors
- (71) It follows that PRON in an embedded clause gets default realization
- (72) John thinks that Mary likes him
- (73) *Evans cases*
Of course you hate me. I hate me.
- (74) Again, not presented as sister-oriented predication.
- (75) Binding theory is not about determining the distribution of a given set of pronominal elements, but about the realization of reflexivity on a term of a dependent category

References Baker 1996 *The polysynthesis parameter* • Carstens 2003 Rethinking complementizer agreement *LI* 34 • Chomsky 1980 On binding *LI* 11 • Crowley 1998 *Erromangan (Sye) grammar* • Epstein 1999 Un-principled syntax *Epstein & Hornstein* • Evans 1980 Pronouns *LI* 11 • Geniušienė 1987 *The typology of reflexives* • Haspelmath 1993 *A grammar of Lezgian* • Hoekstra & Dimmendaal 1983 Review of Vitale 1981 *Lingua* 60 • Kayne 2002 Pronouns and their antecedents *Epstein & Seely* • Meyer 2005 *Das Zay* • Nagaraja 1997 Word order in Khasi *Abbi* • Nedjalkov 1997 *Evenki* • Osumi 1995 *Tinrin grammar* • Rehag 1981 *Ponapean grammar* • Reinhart & Reuland 1993 Reflexivity *LI* 24 • Rooryck & Van den Wyngaerd 1998 The self as other *NELS* 28 • Safir 2004 *The syntax of anaphora* • Schladt 2000 The typology and grammaticalization of reflexives *Frajzyngier & Curl* • Sylla 1993 *Syntaxe peule* • Troike 1981 Subject-object concord in Coahuilteco *Lg* 57 • Watters 2002 *A grammar of Kham* • Zwart 2001 Object shift with raising verbs *LI* 32 • Zwart 2002 Issues relating to a derivational theory of binding *Epstein & Seely* • Zwart 2004 Local agreement Ms. Groningen

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