

**GRAMMATICALIZATION OF POLYSYNTHESIS
(WITH SPECIAL REFERENCE TO SPOKEN FRENCH)**

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1. Introduction: Some basic features of ‘polysynthesis’

The distinguishing features of polysynthetic languages (Jelinek 1984, Mithun 1988, Baker 1996, Evans & Sasse (eds.) 2002, Kibrik 2001):

- ♣ head-marking (Nichols 1986);
- ♣ ‘non-configurational’ syntax, ‘free’ (pragmatically, not grammatically determined) word order.

Yimas (Lower Sepik, New Guinea; Foley 1991: 369–371):

- (1) a. *panmal_i kay_j i_j-n_i-yamal* d. *kay_j i_j-n_i-yamal panmal_i*
 MAN CANOE 3SG.P-3SG.A-CARVE CANOE 3SG.P-3SG.A-CARVE MAN
- b. *kay_j panmal_i i_j-n_i-yamal* e. *i_j-n_i-yamal panmal_i kay_j*
 CANOE MAN 3SG.P-3SG.A 3SG.P-3SG.A-CARVE MAN CANOE
- c. *panmal_i i_j-n_i-yamal kay_j* f. *i_j-n_i-yamal kay_j panmal_i*
 MAN 3SG.P-3SG.A-CARVE CANOE 3SG.P-3SG.A-CARVE CANOE MAN
- ‘The man made a canoe.’

- ♣ the verb is the only obligatory element of the clause; moreover, the verb is an equivalent of the whole clause.

Yimas (Foley 1991: 362; 229):

- (2) a. *na-mpu-mampi-caŋ-wa-t* b. *wa-mpu-ŋa-r-akn*
 3SG.P-3PL.A-AGAIN-WITH-GO-PERF 3SG.P-3PL.A-GIVE-PERF-3PL.IO
 ‘They went with him.’ ‘They gave it to them.’

- ♣ the morphological structure of the verb is rigidly ‘configurational’.

Adyghe (North-West Caucasian, Russia; Smeets 1984: 251–273):

-9	-8	-7	-6	-5	-4	-3	-2
Absolutive	Inversive	Reflexive/ Reciprocal	Version/ Locative	Indirect object	Agent	Optative	Negation
-1	0	+1	+2	+3	+4	+5	
Causative	Root	Aspectual derivation	Potential	TAM	Absolutive plural	Subordinator/ Illocutionary force	

- ♣ These facts are explained by the **Pronominal argument hypothesis** (cf. Jelinek 1984, Bresnan & Mchombo 1987, Foley 1991, Baker 1996):

- (3) in polysynthetic languages the argument positions of the clause are filled by bound pronominal affixes, whereas free NPs are merely adjuncts to the clause.

- ♣ The universal template of clause structure (cf. Foley & Van Valin 1984):

- (4) [periphery adjuncts [core arguments [nucleus predicate]]]

‘Configurational’ languages:

- (5) [periphery adjunct NPs, PPs ... [core argument NPs [nucleus verb]]]

‘Non-configurational’ languages:

- (6) [periphery NPs, PPs [core bound pronouns [nucleus verb root]]]

- b. *moi, le livre, je le lui donne, à ton frère*
 c. *moi, ton frère, je le lui donne, le livre*
 d. *ton frère, je le lui donne, moi, le livre*
 e. *le livre, je le lui donne, moi, à ton frère*
 f. *le livre, moi, je le lui donne, à ton frère*
 g. *je le lui donne, moi, le livre, à ton frère*
 h. *je le lui donne, le livre, à ton frère, moi*
 etc.

‘I am giving it to him, the book, to your brother.’

Topic and antitopic NPs are **optional**:

- (23) i. *je le lui donne*
 ‘I am giving it to him.’

3. Grammaticalization of polysynthesis

3.1. Spoken French: pragmatics and grammar

Left- and right-dislocated NPs in SF are not merely clause-level adjuncts; they have genuine pragmatic functions of topics and antitopics:

♣ topics and antitopics must be definite (Lambrecht 1983: 61):

- (24) a. *Un garçon attend devant la porte*
 $\tilde{\alpha}=\text{gars}\tilde{\alpha}$ $\text{at}\tilde{\alpha}$ $\text{d}\tilde{\alpha}\text{v}\tilde{\alpha}$ $\text{la}=\text{port}$
 INDEF.MASC=BOY WAIT AT DEF.FEM=DOOR
 ‘A boy is waiting at the door.’
- b. **Un garçon, il attend devant la porte*
 * $\tilde{\alpha}=\text{gars}\tilde{\alpha}$ $\text{il-at}\tilde{\alpha}$ $\text{d}\tilde{\alpha}\text{v}\tilde{\alpha}$ $\text{la}=\text{port}$
 INDEF.MASC=BOY 3SG.SB.MASC-WAIT AT DEF.FEM=DOOR
 *‘A boy, he is waiting at the door.’

♣ topics and antitopics cannot introduce new referents into the discourse (ibid.: 62):

- (25) a. *Y-a ton père qu’attend devant la porte*
 j-a $\text{t}\tilde{\alpha}=\text{p}\tilde{\epsilon}\tilde{\text{r}}$ $\text{k-at}\tilde{\alpha}$ $\text{d}\tilde{\alpha}\text{v}\tilde{\alpha}$ $\text{la}=\text{port}$
 LOC-AUX 2SG.POSS.MASC-FATHER REL.SB-WAIT AT DEF.FEM=DOOR
 ‘There’s your father waiting at the door.’
- b. #*Ton père, il attend devant la porte*
 # $\text{t}\tilde{\alpha}=\text{p}\tilde{\epsilon}\tilde{\text{r}}$ $\text{il-at}\tilde{\alpha}$ $\text{d}\tilde{\alpha}\text{v}\tilde{\alpha}$ $\text{la}=\text{port}$
 2SG.POSS.MASC-FATHER 3SG.SB.MASC-WAIT AT DEF.FEM=DOOR
 #‘Your father, he is waiting at the door.’

There are many instances when full NPs appear in clause-internal argument positions, barring the appearance of bound pronouns:

♣ subordinate clauses (Lambrecht 1987: 236, 248):

- (26) a. *...quand les enfants prendraient au lycée...*
 $\text{k}\tilde{\alpha}$ $\text{lez}=\tilde{\alpha}\tilde{\text{f}}\tilde{\alpha}$ $\text{pr}\tilde{\alpha}\text{dr-}\tilde{\epsilon}$ $\text{o}=\text{lise}$
 WHEN DEF.PL=CHILDREN ENTER-CND TO.DEF.MASC=COLLEGE
 ‘...when the children would enter the college...’
- b. *...que maman t’a donné...*
 $\text{k}\tilde{\alpha}$ $\text{mam}\tilde{\alpha}$ $\text{t-a-d}\tilde{\alpha}\tilde{\text{n}}$
 THAT MOM 2SG.PO-PERF-GIVE
 ‘<the honeysuckle> that mom gave you...’

♣ focalized NPs in special focus constructions (ibid.: 223– 226):

- (27) *Où est mon rasoir? — C’est Pierre qui l’a*
 u e $\text{m}\tilde{\alpha}=\text{razwa?}$ s-e $\text{Pj}\tilde{\epsilon}\tilde{\text{r}}$ ki-l-a
 WHERE IS 1SG.POSS.MASC=RAZOR IT-AUX PETER REL.SB-3SG.DO-HAVE
 ‘Where is my razor? — It’s Peter who has it’

♣ NPs introducing new referents in the discourse in special presentational constructions ((25a), *ibid.* 229):

- (28) *moi, j'ai encore un formulaire que j'ai pas*
mwa ž-ε akor ɛ=formylɛr kɛž-ε-pa
 I 1SG.SB-AUX MORE INDEF.MASC=FORM REL-1SG.SB-HAVE-NEG
 'There's another form I don't have.'

♣ NPs denoting backgrounded, non topic-worthy referents (see Lambrecht 1987 for an extensive discussion).

Polysynthetic morphosyntax in SF is restricted to clauses conforming to the 'preferred' template, viz. those which do not introduce new referents and do not contain backgrounded core participants. Polysynthetic morphosyntax is thus directly linked to a special pragmatic type of clause.

3.2. A parallel: Bantu

Similar morphosyntactic patterns exist in some Bantu languages (see Givón 1976 and especially Bresnan & Mchombo 1986, 1987, Hanson 1987).

Chichewa

The subject is always cross-referenced by a bound pronoun on the verb, and may appear both before and after the VP (Bresnan & Mchombo 1987: 744–745):

- (29) a. *njûchi zi-ná-lúma alenje* b. *zi-ná-lúm-a alenje njûchi*
 BEES(X) X.SB-PAST-BITE HUNTERS(II) II.SB-PAST-BITE HUNTERS(II) BEES(X)
 'The bees bit the hunters.'

When there is no object pronominal on the verb, the object may occupy only the VP-internal postverbal position (*ibid.*):

- (29) c. **alenje zi-ná-lúma njûchi* e. **njûchi alenje zi-ná-lúma*
 HUNTERS(II) X.SB-PAST-BITE BEES(X) BEES(X) HUNTERS(II) X.SB-PAST-BITE
 d. **zi-ná-lúm-a njûchi alenje* f. **alenje njûchi zi-ná-lúma*
 X.SB-PAST-BITE BEES(X) HUNTERS(II) HUNTERS(II) BEES(X) X.SB-PAST-BITE

However, once the bound pronoun cross-referencing the object is present, all possible orders of the main clausal constituents become grammatical (*ibid.*):

- (30) a. *njûchi zi-ná-wá-luma alenje* d. *zi-ná-wá-luma njûchi alenje*
 BEES(X) X.SB-PAST-II.DO-BITE HUNTERS(II) X.SB-PAST-II.DO-BITE BEES(X) HUNTERS(II)
 b. *zi-ná-wá-luma alenje njûchi* e. *njûchi alenje zi-ná-wá-luma*
 II.SB-PAST-II.DO-BITE HUNTERS(II) BEES(X) BEES(X) HUNTERS(II) X.SB-PAST-II.DO-BITE
 c. *alenje zi-ná-wá-luma njûchi* f. *alenje njûchi zi-ná-wá-luma*
 HUNTERS(II) X.SB-PAST-II.DO-BITE BEES(X) HUNTERS(II) BEES(X) X.SB-PAST-II.DO-BITE
 'The bees bit the hunters.'

Syntactic facts show that when cross-referenced by bound pronouns, 'object' NPs are not genuine objects, but rather topics or antitopics (*ibid.*, Hanson 1987).

SF differs from Chichewa in that in the latter there is no complementarity between subject NPs and bound pronominals: subject prefixes are strictly obligatory.

Makua and Kiswahili

Not only subject NPs are always cross-referenced on the verb, but so are animate object NPs (*ibid.*, 777):

- (31) (**Makua**) *Aráarima á-hó-*(ń)-líha mwaáná*
 ARAARIMA 3SG.SB-PAST-*(3SG.DO)-FEED CHILD
 'Araarima fed a child.'
- (32) (**Kiswahili**) *Maryamu a-li-*(wa)-onyesha watoto kisu*
 MARYAMU 3SG.SB-PAST-*(3PL.DO)-SHOW CHILDREN KNIFE
 'Maryamu showed the children a knife.'

3.3. Noun incorporation — another parallel?

Free NPs in argument positions in SF (with a notable exception of proper names, see Lambrecht 1987: 248–250) are akin to noun incorporation constructions in the languages of the Native North America (cf.

Mithun 1984; Muravyova 2004). According to Lambrecht 1987, argument NPs in SF bear the following features (cf. above):

- ♣ non-referentiality;
- ♣ low degree of discourse salience;
- ♣ they co-occur with intransitive verbs or verbs low in transitivity;
- ♣ they often occur in subordinate clauses;
- ♣ they rarely are agentive.

Alutor (Chukotko-Kamchatkan, Russia; Kibrik et al. 2000: 78):

- (33) a. *ənnan* *ɣa-walqiv-lin* *to* *səɣe-ɣiɣ-ki* *ɣa-pitqə-lin*
 ONE RES-RUN.AWAY-RES.3SG.ABS AND SAND-IN-LOC RES-HIDE-RES.3SG.ABS
 ‘One <of the enemies> had run away and hid himself in the sand.’
- b. *jeqmitiv* *ɣa-kjav-lin* *varat,* *ɣa-la ɣu-lin* *səɣe-pitqe-lʲ ʔə-n*
 MORNING RES-WAKE.UP-RES.3SG.ABS PEOPLE.ABS RES-SEE-RES.3SG.ABS SAND-HIDE-ATR-ABS
 ‘Next morning the people woke up and saw the one who was hiding in the sand.’

Such ‘argument-in-situ’ constructions may be regarded as a possible source of noun incorporation, in addition to the grammaticalization path outlined by Mithun (1984), but a more detailed investigation is required.

3.4. A diachronic scenario

On the basis of the data discussed above it is possible to outline the following scenario of the diachronic development leading from ‘configurational’ to ‘polysynthetic’ morphosyntax:

Stage 0. Fully ‘configurational’ syntax with argument NPs occupying (more or less) fixed positions in the core of the clause. Topic and antitopic constructions with ‘resumptive’ independent pronouns (English).

Stage 1. Development of unstressed clitic pronouns with special grammatical and pragmatic functions (Literary French).

Stage 2. Morphologization of clitic pronominals; two types of the core: (i) with pronominal arguments (purely anaphoric or cross-referencing optional topic/antitopic NPs); (ii) with NPs occupying argument positions (Spoken French).

Stage 3. Reanalysis of agentive topics/antitopics as subjects and complete obligatorification of subject pronominals (Chichewa).

Stage 4. Reanalysis of (at least animate) non-agentive topics/antitopics as (primary) objects and further grammaticalization of object pronominals (Kiswahili).

The development from Stage 0 to Stage 1 has occurred in all Romance languages, many of which have drifted towards Stage 2, like SF.

The transition from Stage 2 to Stage 3 is based on the fact that there is a significant correlation between topicality and agentivity (see e.g. Givón 1984: Ch. 5), thus most extra-clausal NPs being agents facilitates their reanalysis as subjects.

The transition from Stage 3 to Stage 4 is also animacy-based: it is animate referents which are most topic-worthy, and this correlation may trigger the reanalysis of animate non-agentive topics/antitopics as primary objects (in the sense of Dryer 1986).

As the topic/antitopic constructions get grammaticalized they gradually lose their pragmatic motivation; so, an important evidence for a higher degree of grammaticalization of these constructions, and, consequently, of the cross-referencing morphology on the verb, is the co-occurrence of full NPs and bound pronouns in subordinate clauses, as well as the ability of bound pronouns to cross-reference quantified or indefinite NPs.

Adyghe (North-West Caucasian; Russia; field materials of RSUH expeditions, 2003–2005, examples of Julia Kuznetsova and Sergej Minor):

- (34) *čʰale-r_i* *λəʒə-m_j* *Ø_i-zer-jəj-wəčʰə-new* *Ø_j-feja-ke-mčʰe*
 BOY-ABS MAN-OBL 3SG.ABS-REL-3SG.A-KILL-SBR 3SG.ABS-WANT-PAST-SBR
ə-g^w_k *Ø_i-q-je_k-wa-ɸ*
 3SG.POSS-HEART 3SG.S-INV-3SG.IO-BEAT-PAST
 ‘The boy was offended by the man’s wish to kill him.’

- (35) *zeč'e č'ale-xe-r;* *txəl zərəz;* *Ø_i-jē-j-ža-ke-x_i*
 EACH BOY-PL-ABS BOOK ONE.BY.ONE 3PL.ABS-3SG.IO-READ-PAST-PL.ABS
 'Each boy read one book.'

For the diachronic scenario outlined here it is crucial that the cross-reference markers for the 3rd person are morphologically overt (cf. Mithun 1986, 1991). When full NPs do not correspond to any non-zero bound pronoun, they may retain their argumental status, and this results in fixed word order of clauses with 3rd person arguments.

Lakhota (Siouan, USA; Van Valin 1985: 366):

- (36) a. *wičháša_i* *ki* *mathó_j* *wq* *Ø_j-Ø_i-kté*
 MAN DEF BEAR INDEF 3SG.P-3SG.A-KILL
 'The man killed a bear.'
- b. *mathó_i* *wq* *wičháša_j* *ki* *Ø_j-Ø_i-kté*
 BEAR INDEF MAN DEF 3SG.P-3SG.A-KILL
 'A bear killed the man. // *The man killed the bear.'

However, Lakhota differs from SF in that full NPs are nevertheless optional and may be omitted without any changes in the verbal morphology, cf. (ibid.):

- (36) c. *Ø-Ø-kté*
 3SG.P-3SG.A-KILL
 'He/she/it killed him/her/it.'

In SF, on the contrary, omission of the argument NPs results in ungrammaticality unless the overt bound pronouns appear:

- (37) a. **a tué* b. *il l' a tué*
**a-tye* *i-l-a-tye*
 PERF-KILL 3SG.SB.MASC-3SG.DO-PERF-KILL
 'He killed him/her/it.'

This is a strong argument for regarding full NPs and bound pronominals in SF as still competing for the argument positions in the core of the clause. Therefore, SF is at the Stage 2 of the development of polysynthetic morphosyntax.

4. Concluding remarks

- ♣ SF has developed a full-fledged system of bound pronominal affixes on the verb, filling at least three argument positions: Subject, Primary/Direct object, and Secondary/Indirect object; these elements are grammaticalized enough both formally and functionally to be regarded as affixes and not clitics.
- ♣ SF extensively uses topic and antitopic constructions, putting full NPs outside the core of the clause; these NPs are cross-referenced by the bound pronouns, which occupy the argument positions in the core of the clause.
- ♣ However, there are instances when SF uses 'classical' SVO sentence structures with argument positions filled by full NPs; these constructions are used when the respective arguments are low in discourse salience and semantic/pragmatic prominence.
- ♣ Thus, SF may be regarded as a language where genuinely polysynthetic morphosyntax coincides with 'standard' 'configurational' morphosyntax, these two types of clause structure having different pragmatic functions and motivations.
- ♣ The situation found in SF is typologically non-unique and is observed in other languages as well; there is strong evidence for regarding SF as exhibiting a rather typical situation of a language undergoing diachronic change from 'configurational' to 'polysynthetic' morphosyntax.

Abbreviations

A – transitive agent, ABS – absolutive, ART – article, ATR – attributive, AUX – auxiliary, CAUS – causative, COND – conditional, DEF – definiteness, DO – direct object, FEM – feminine, FUT – future, INDEF – indefiniteness, INV – inverse, IO – indirect object, LOC – locative, MASC – masculine, NEG – negation, OBL – oblique, P – transitive patient, PART – partitive, PERF – perfect(ive), PL – plural, PO – primary object, POSS – possessor, REL – relativizer, RES – resultative, SB – subject, SBR – subordinator, SG – singular, SO – secondary object; II, X – Bantu noun classes.

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