GRAMMATICALIZATION OF POLYSYNTHESIS
(WITH SPECIAL REFERENCE TO SPOKEN FRENCH)

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1. Introduction: Some basic features of ‘polysynthesis’

♣ 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 | kay | i-j-n-i-yamal
MAN | CANOE | 3SG.P-3SG.A-CARVE
b. kay | panmal | i-j-n-i-yamal
CANOE | MAN | 3SG.P-3SG.A-CARVE
c. panmal | i-j-n-i-yamal | kay
MAN | 3SG.P-3SG.A-CARVE

‘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-caq-wa-t
3SG.P-3PL.A-AGAIN-WITH-GO-PERF
b. wa-mpu-ja-r-akn
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):

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<tr>
<td>Absolutive</td>
<td>Inversive</td>
<td>Reflexive/Reciprocal</td>
<td>Version/Locative</td>
<td>Indirect object</td>
<td>Agent</td>
<td>Optative</td>
<td>Negation</td>
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<tr>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
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<tr>
<td>Causative</td>
<td>Root</td>
<td>Aspectual derivation</td>
<td>Potential</td>
<td>TAM</td>
<td>Absolutive plural</td>
<td>Subordinator/Illocutionary force</td>
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(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]]]
2. Spoken French as a polssynthetic language
2.1. Morphological evidence

obligatorification and morphologization of pronominal clitics (see Lambrecht 1983: Ch. 2; Auger 1993):

oblatory liaison (Lambrecht 1983: 17–18):

(7) a. *mes amis ont
   b. *mez=ami ∞

   1SG.POSS.PL-FRIEND HAVE.3PL.SB

   ‘My friends have...’

phonetic erosion and assimilation (ibid.: 20–21):

(10) a. *tu me vois
    b. je te le donne
    c. je lui donne

   2SG.SB-1SG.DO-SEE
   1SG.SB-2SG.DO-3SG.DO.SG.MASC.GIVE
   1SG.SB-3SG.IO.GIVE

   ‘You see me.’    ‘You give it to me.’   ‘I give him.’

no contrastive stress (ibid.: 21–22):

(11) a. *Jean là voit
    b. prends-lé!

   3SG.FEM.DO-SEE TAKE-3SG.DO.MASC

   ‘Jean sees her.’   ‘Take it!’

almost strict adjacency to the verbal root (ibid.: 22):

(12) a. *il malhereusement boit beaucoup
    b. il (ne) l’aime pas

   3SG.SB.MASC UNFORTUNATELY DRINK A .LOT   3SG.SB.MASC-(NEG)-3SG.DO-LOVE-NEG

   ‘Unfortunately, he drinks a lot.’   ‘He does not love her.’

they do not allow modification (ibid.):

(13) a. *vous tous êtes des idiots
    b. vous êtes tous des idiots

   2PL.SB-ALL ARE ART=IDIOT.PL   2PL.SB-ARE ALL ART=IDIOT.PL

   ‘You all are idiots.’

they do not allow conjunction (ibid.):

(14) a. *je et tu aime ça
    b. toi et moi, on-aime ça

   1SG.SB-AND-2SG.SG-LOVE THAT YOU AND I 1PL.SB-LOVE THAT

   ‘You and me, we love that.’

they do not allow relativization (ibid.):

(15) a. *il qui aime ça
    b. lui qui aime ça

   3SG.SB.MASC-REL.SB-LOVE THAT HE REL.SB-LOVE THAT

   ‘He who loves that.’

they are obligatory in many contexts (ibid.: 23–32):

(16) a. il l’insulte et *(il le) met à la porte

   3SG.SB.MASC-3SG.DO-INSULT AND *(3SG.SB.MASC-3SG.DO.MASC)-PUT TO DEF.FEM=DOOR

   ‘He insults him and drives him away.’

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<tbody>
<tr>
<td>Relativizer</td>
<td>Subject</td>
<td>Future</td>
<td>Primary/ Direct object</td>
<td>Secondary/ Indirect object</td>
<td>Partitive</td>
<td>Locative</td>
<td>Perfective</td>
<td>Causative</td>
<td>Root</td>
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(17) l’homme que je le regarde
DEF=MAN REL-1SG.SB-3SG.DO.MASC-LOOK.AT
‘The man whom I look at.’

(18) a. je vais le lui donner
ž-ve-1SG.SB-3SG.DO.MASC-3SG.IO-GIVE
1SG.SB-FUT-3SG.DO.MASC-3SG.IO-GIVE
‘I am going to give it to him/her.’

b. je le lui ai donné
ž-lyi-e-dône
1SG.SB-3SG.DO.MASC-3SG.IO-PERF-GIVE
‘I gave it to him/her.’

c. j’ en y ai conduit
ž-an-i-e-c.ôyi
1SG.SB-PART-LOC-PERF-BRING
‘I have brought some of them there.’

b. je lui en ai donné
ž-lyi-e-dône
1SG.SB-3SG.IO-PART-PERF-GIVE
‘I gave him/her some of them.’

(19) il m’a fait partir
3SG.SB.MASC-1SG.PO-PERF-CAUS-LEAVE
‘He made me leave.’


(20) a. *est-il arrivé?
*et-il-arrive
PERF-3SG.SB.MASC-COME 3SG.SB.MASC-PERF-COME
‘Did he come?’

b. il est arrivé ? (rising intonation)
il-et-arive
‘Did he come?’

(21) a. *quand est-il arrivé?
*kà
WHEN PERF-3SG.SB.MASC-COME 3SG.SB.MASC-PERF-COME WHEN
‘When did he come?’

b. il est arrivé quand?
il-et-arive
‘When did he come?’

From the point of view of the elaboration of verbal morphology, especially of bound pronouns, SF can be treated as a ‘mildly’ polysynthetic language (cf. Mithun 1988 for the discussion of genuinely ‘verby’ languages).

2.2. Syntactic evidence

Lambrecht 1983, 1987: ‘preferred’ clause structure in SF:

(22) a. [clitic complex + Verb + (XP)]

In our terms:

b. [Verb + (XP)]

Statistics (Lambrecht 1987: 218–219): out of 1.550 lexical NPs in a conversational corpus, 46 are subjects, ca. 300 are objects, and ca. 1.200 are either in AdvPs or PPs, or ‘in extra-clausal topic phrases’.

Argument positions in the clause are usually filled by bound pronouns; full NPs mainly occupy extra-clausal positions, viz. left-detached *topic* and right-detached *antitopic* (Lambrecht 1983: Ch. 3; cf. also Barnes 1985, Ashby 1988), and are cross-referenced by the bound pronouns. The mutual order of NPs is determined mainly by discourse and pragmatic factors, and notably not by their grammatical function or semantic role, cf. (Lambrecht 1983: 54–55, 83):

(23) a. moi, je; le; lui; donne, le livre; à ton frère

mwa, ž-1SG.SB-3SG.DO.MASC-3SG.IO-GIVE DEF.MASC=BOOK TO=2SG.POSS.MASC=BROTHER
b. moi, le livre, je le lui donne, à ton frère

2.2. The book, the subject

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

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

g. je le lui donne, moi, le livre, à ton frère

h. je le lui donne, le livre, à ton frère, moi

‘I am giving it to him.’

e. le livre, je le lui donne, moi, à ton frère

‘I am giving it to him.’

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

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

INES. = garsC atā ḍwā la=port

‘A boy is waiting at the door.’

b. *Un garçon, il attend devant la porte

*INES. = garsC il-ātā ḍwā la=port

‘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 tā prādr-e o=liśe

loc-aux 2SG.POSS.MASC-FATHER RELEX-SB-WAIT AT DEF.MASC=COLLEGE

‘There’s your father waiting at the door.’

b. *Ton père, il attend devant la porte

*INES. = pēr il-ātā ḍwā la=port

‘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...

kā lez=afā prādr-e o=liśe

WHEN DEF.PL=CHILDREN ENTER-CND TO.DEF.MASC=COLLEGE

‘...when the children would enter the college...’

b. ...que maman t’a donné...

kā mamā t-a-dāne

THAT MUM 2SG.PO-LIMP-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

INES. = mās=razwā? s-e Pēr 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 ż-e akor ż=formylər kə ż-e-pa
1 ISG.SB-AUX MORE IND.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. njüchi zi-ná-lúma alenje
   BEESEX X.SB-PAST-BITE HUNTERS(II)
   ‘The bees bit the hunters.’

b. zi-ná-lům-a alenje njüchi
   HUNTERS(II) X.SB-PAST-BITE BEESEX

c. *alenje zi-ná-lůma njüchi
   HUNTERS(II) X.SB-PAST-BITE BEESEX

d. *zi-ná-lům-a njüchi alenje
   HUNTERS(II) X.SB-PAST-BITE BEESEX

e. *njüchi alenje zi-ná-lůma
   BEESEX HUNTERS(II) X.SB-PAST-BITE

f. *alenje njüchi zi-ná-lůma
   HUNTERS(II) BEESEX 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. njüchi zi-ná-wá-luma alenje
   BEESEX X.SB-PAST-DO-BITE HUNTERS(II)
   ‘The bees bit the hunters.’

b. zi-ná-wá-luma alenje njüchi
   HUNTERS(II) X.SB-PAST-DO-BITE BEESEX

c. alenje zi-ná-wá-luma njüchi
   HUNTERS(II) X.SB-PAST-DO-BITE BEESEX

d. *zi-ná-wá-luma njüchi alenje
   BEESEX HUNTERS(II) X.SB-PAST-DO-BITE

e. *alenje njüchi zi-ná-wá-luma
   HUNTERS(II) BEESEX X.SB-PAST-DO-BITE

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 pronouns: 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) Aráárima á-hó.*(n)-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.
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. ānnan γa-walqiv-lin to səγe-γiγi-ki γa-pitqेल-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 γa-kjav-lin varat, γa-la γi-lin səγe-pitqेल-γ 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 of 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) ĕlale-ti, ǿ�a-μij Ǿ-ezer-jey-wej-e-new Ǿ-ejea-κe-mey’e
BOY-ABS MAN-OBL 3SG.ABS-REL-3SG.A-KILL-SBR 3SG.ABS-WANT-PAST-SBR
Ǿ-eq-jeq-wa-μ 3SG.POSS-HEART 3SG.S-INV-3SG.IO-BEAT-PAST
‘The boy was offended by the man’s wish to kill him.’
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. wičháša₃ ki mathó₃ wq ő-ő-kté
   MAN DEF BEAR INDEF 3SG.P-3SG.A-KILL
   ‘The man killed a bear.’

   b. mathó₃ wq wičháša₃ ki ő-ő-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. ő-ő-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

References