Reconstruction & Constituent Structure[*]

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Thesis: On the basis of reconstruction effects (or lack thereof), I will suggest:
(i) The **Syntactic Decomposition** of (almost all) polyadic predicates in a collection of more elementary predicates.
(ii) Further **Partitioning**: determiner/quantificational properties of XPs (as well as number, …) are separated from their lexical/thematic properties, suggesting a model of syntactic organization in which heads of syntactic projections in a clause are hierarchically organized **by type.** Ds are not generated as forming a constituent with their restrictions NPs. Thus, quantificational properties or number properties (of DPs) are (in a sense to be made precise) represented outside the domain in which thematic properties are represented (VPs).
(iii) That a number of properties of synthetic compounds can, from this perspective, be understood.
(iv) That an explanation of these results follows from a strong version of UTAH which is itself derivable from and thus explained by a conception of syntactic representations that eliminates thematic roles and replaces them by configurational definitions of predicate argument relations. This is in turn leads to A strictly transformational approach to inflectional and derivational morphology and lexical decomposition.

Background Assumptions:

(i) the existence of movement
(ii) Principles of interpretation (Scope, Binding) hold exclusively at LF: they are properties of this level of representation.
(iii) Certain principles are sensitive to the position occupied by a phrase: e.g. the binding/scope principles:
Principles A, B, C
V: pronouns interpreted as variables bound by QPs must be in the scope of this QP (=c-commanded by this QP at LF) (not sufficient: cf. WCO: Who did his friend see t)

⊗If movement → connectivity/reconstruction : NO (e.g. A-movement)
  If connectivity → movement: NO (pseudo clefts)

A-reconstruction:

Argument:
(i) <u>A-movement can reconstruct</u> (as argued in various places, e.g. Barrs, 86 and later) w.r.t. to binding and scope evaluation.
(ii) (Since Binding and Scope are LF properties by definition), reconstruction should not be not scope neutral or scope possibilities should not be binding neutral in general. True in appearance in many cases, perhaps always?\

Relevant Configurations:

....X .....Y ......Z   (x c-commands y, y c-commands z)

Configuration #1 Movement from z to x could provide an antecedent for y that it would otherwise lack (allowing principles A or V to be satisfied or C to be violated). If Binding A and V satisfied at visible output of movement: reconstruction is not obligatory; otherwise (if A and V violated), reconstruction obligatory. If C violated at output, reconstruction is impossible. Otherwise reconstruction is allowed
Important Note: Necessary for A and V at least; X is an A-position:

(1) * These children, pictures of each other showed you knew t   derived c-command not OK,
                                                                           not WCO (Lasnik and Stowell)
(2)   What men$_i$ did pictures of them$_{*i}$ /*each other showed you knew   WCO

Configuration #2 Movement from z to x could remove an antecedent (y) for z that it would otherwise have: (preventing principles A or V from being satisfied or removing a violation of C). If A and V violated at visible output: reconstruction is impossible; if A and V not violated, reconstruction is possible. If C violated at output, reconstruction is obligatory. Otherwise (if C is not violated), reconstruction is not obligatory.
[for A-bar, rec. looks obligatory: Him, Mary thinks John respects]

Principle A

#1
(3) They seemed to each other [t to be pale]   OK: reconstruction not obligatory
                                                          subject is an A-position
(4) They struck each other as [t being pale]   "   "
(5) * it seemed to each other [that they were pale]   no binding from rec. position
(6) * it struck each other [that they were pale]   "   "
(7) * it seemed to him [that John was sick]   Principle C: y c-commands z

#2
(8) * some pictures of each other seemed to me [t to be good]   antecedent necessary
(9)   some pictures of each other seemed to them [t to be good]   ok: rec. possible
       (scope seem/some? *some>seem, OK seem > some)
(10) some pictures of each other struck them (/*me) as [t good]   ok: rec. possible
(11) some stories about each other pleased the boys (/*me) t   ok: " (classical psych)

Possible French paradigm with *soi (=self or one)*: akin to Chinese *ziji* (needs a c-commanding antecedent, not necessarily local, sensitive to 1st and 2nd person interveners) Could fall uder cases of case V.

(12)   Quand tout le monde écoute de bons amis à soi...(variation about qualifying antecedents)
         When everyone listens to good friends of self
(13) *   Quand de bons amis à soi écoutent tout le monde..
         When good friends of self listen to everyone
(14)   Nul ne prétend que la République a besoin de soi
         Nobody claims that the Republic needs self
(15) *   Nul ne prétend que tu as besoin de soi
         Nobody claims that you need self
(16)   Quand des photos compromettantes de soi inquiètent tout le monde Psych verb
         When compromising pictures of self worry everyone...

Conclusion:

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Subjects are A-position in the relevant sense
Reconstruction possible but not obligatory (in case of A-movement, i.e. Case based movement).
<u>Note</u>:
Reconstruction not theta based (not a hierarchy between coarguments) (cf. seem or struck)
Logophoric solution (Reinhart and Reuland, Pollard and Sag, etc...)
    a. Problems: does not draw the relevant distinction: e.g (1), (5), (6), (8), (13), ...
        Also: * They said that Mary saw each other's pictures
                Nobody likes bad pictures of himself
    b. Principle V facts immune from this problem and show the same effects.

Principle V:

#1
(17) Some child seemed to his mother [t to be pale]   OK: reconstruction not obligatory
= there was a child who seemed to his mother to be pale   (Some> seem: otherwise ungrammatical)
 (18) Some child seemed to himself [t to be pale]   ok: rec not obligatory
≠ it seemed to x that there was some pale x   (Some > seem)
(19) Some child seemed to Bill to be pale   scope amb: rec possible: May's Q-lowering

#2
(20) * le nouvel ami de son père n'a peint aucun enfant
(21) * the new friend of <u>his</u> father painted every child   WCO if any.
(22) ?les photos de ma/sa fille ne semblaient être bonnes <u>à aucun parent</u> no difference ma/sa
(23) the new pictures of <u>his</u> child seemed to everyone [t to be good]   ok: rec. possible
    (scope? the--> some: binding only if some<seem)

(24) * such teachers of <u>her</u> children call every mother   WCO (cf. below)
(25) * such teachers of <u>her</u> children do not call any mother
(26) such evaluations of <u>his</u> performance struck every child [t as unfair]   ok: rec. possible
(27) such evaluations of <u>his</u> performance did not strike any child [t as unfair] (classical psych)

<u>Conclusion</u>: reconstruction possible but not obligatory (in case of A-movement, i.e. Case based movement)

Principle C
#2 (cf. below for #1)
(28) quelques photos de Jean lui semblaient [t être bonnes]
(29) some pictures of John seem to <u>him</u> [t to be good]   ok: rec. not obligatory
= there are some pictures of John which seem good to John   scope prediction?
≠it seems to John that there are some good pictures of him   scope some > seem
(30) A unicorn seemed to Bill [t to be grazing in his backyard]
    There is a unicorn which seemed to Bill...   Wide scope existential
    It seemed to Bill that there was a unicorn ...   Narrow scope: Reconst. in t

(31) A unicorn of John's size seemed to Bill to be grazing in his backyard   Ambiguous
(32) A unicorn of *John's* size seemed to *him* to be grazing in his backyard   Wide scope only
    (otherwise = it seemed to him that a unicorn of John's size was...)...

If something else needs reconstruction (cf. Chomsky, 1995, on certain idioms) reconstruction is clearly possible:

(33) Pictures of Mary seemed to her [t to be good enough]
(34) Some pictures of Mary seemed to her to be quite good   Some> seem only
(35) Some pictures of her seemed to Mary to have been taken   ambiguous
(36) Grand soin de Marie me / *lui semble avoir été pris
(37) ? Good care of Mary seemed to them to have been taken
(38) * Good care of Mary seemed to her [t to have been taken]   rec possible-->
   (= * it seemed to her that good care of Mary has been taken)   C violation
(39) Good care of her seemed to Mary to have been taken
[(40) Good care of her seemed to Mary likely to have been taken t]

Conclusion: reconstruction possible but not obligatory (in case of A-movement, i.e. Case based movement).
Note: reconstruction not theta based (not a hierarchy between coarguments)

Scope
 cf. above again…

Problems:

Principle A
Problems 1:
(41) Himself pleased John t   rec impossible
(42) Himself seemed to John [t to be sick]   rec impossible

Problems 1:
(41) and (42) should be OK. Comparing with examples with pictures of himself instead of himself: Why should the internal structure of the constituent containing the anaphor matter to whether reconstruction is possible or not?

Problems 2:
(43) * Friends of each other killed them   rec impossible
44) * Himself killed John   rec impossible
Recall that given the PISH + AGR based case theory:
(45) John saw Mary: $John_j$ ...Tense...$Mary_k$ [$_{VP}$ t_j .. [V.. t_k..]]

Principle C everywhere? (Lebeaux, 94, Heycock, 95..)
(i) ad hoc
(ii) inconsistent with internal structure of DP:
(46) His self (himself) killed John / His brother killed John
(47) Your selves kicked John and you
(iii) Inconsistent with apparent overt violations (Fiengo &May, 95, Fox, 97):
(48) I introduced him to everyone that John wanted me to (introduce him to)
(49) [despite Peter's great persuasive powers and his desire to meet many people, Sue' s is more impressive because]: Sue persuaded Mary to introduced him to more people than Peter himself
      (bears on Hornstein's 94 proposal)
(50) Suzanne a persuade Marie de le presenter a plus de gens que Pierre (=n' a persuade Marie de le presenter)

(iv) fails to generalize to other cases: e.g. Q-scope (cf. below: (58))

Same Problems with other Principles:

<u>Principle B</u>
(51) * John expected him to be likely t to win   rec impossible
(52)   John expected it to be likely that he would win

<u>Principle V</u>
(53) * friends of his parents killed every boy   rec impossible
                                                         (Standard WCO)

<u>Principle C (case #1)</u>
(54) * He seemed to John's friends to be sick   rec impossible
(55) * He seemed to John's friends to be likely to be sick   rec impossible

General Proposal:

if movement → reconstruction) →Reconstruction is impossible because element to reconstruct never was moved from where we want to reconstruct it:

First case:

(44) Himself killed John
(43) Friends of each other killed them
(53) Friends of his parents killed every boy

The Case position of the object is higher than the lowest position of the subject
(Sportiche, 90, Koopman and Sportiche, 91, Travis 91, Collins 92, Noonan, 92….

Chomsky , 91, etc..:   AGRnom [AGRacc [$_{VP}$ ext arg. Internal arg.]] →
Alternative   AGRnom [ext arg V1 [AGRacc [int. Arg V2]

Functional property inside Lexical property: Locality principle on θ-assignment: there must be two predicates (thus providing a rationale for Larson's 1987 VP shell proposal). As a result, even apparently monomorphemic predicate (*kill*, *see*) are treated syntactically as complex units (kill = cause-die, etc): syntax can see the internal structure of (some) words... Phonological words (kill, etc.. have no privileged syntactic status - e.g. there is no reason to view them as syntactically atomic).

Second Case

Problems 1:
(41) Himself pleased John t   rec impossible
(42) Himself seemed to John [t to be sick]   rec impossible
(54) He seemed to John's friends to be sick   rec impossible

Here lexical decomposition is clearly not good enough since all these cases are raising cases.
However, **almost all** arguments for raising are based on selection of <u>NPs</u> never of Ds. Furthermore, the argument of a predicate is the variable ranging over the set denoted by the NP: the D properties are external to the thematic complex (hence QR, or other devices): NPs raise, DPs do not (necessarily, cf. later). A <u>D is generated outside the thematic complex containing its NP</u>.
[¶ More generally everything non thematic associated with head of argument is outside VP, e.g. plural number - problems with plurals, telicity]

Problem 1

(42) Himself seemed to John [t to be sick]
..him ...   [seem to John [... self sick]]   or
..himself [seem to John [... NP$_{[+animate]}$ sick]]

(54) He seemed to John's friends to be sick
..he [seem to John's friend [... NP$_{[+human]}$ sick]]

Note: does not subsume the previous case because of (43) and (53).

Clause Structure

A maximal "clause" is built by a succession of uniform layers:
Q properties - Case properties - Number properties -   Thematic properties
wh, def,...   one case   at most one nominal arg. (+one clausal arg.)
The last requirement insures syntactic predicate decomposition
Syntactic representations are organized as a set of successively more inclusive layers of structure mirroring the hierarchy of properties lexical/thematic < Number < Case < Determiner/quantificational. so that a sentence like *Le chat dort* roughly has a representation:

(56) [$_{DP}$ le [$_{AGRsP}$ AGRs- [$_{VP}$ [$_{NP}$ chat] [$_V$ dorm]]

The argument of *dormir* is the NP (not the DP) *chat*. It is the Noun, not the D that is selected. The recipient of the thematic role is not the DP but the variable ranging over the set meeting the NP description (ultimately bound by the VP external D).

Typology of clauses (on Qs/Ds, see recent work by Prinzhorn, Stowell and Beghelli, Szabolcsi):
      wh - ref - neg - distr- predicative / card - Agr - number (with Tense somewhere)
Clauses can be more or less impoverished (i.e. truncated somewhere)
a. Simple tensed clauses: everything
b. complement tensed clauses: full or truncated below wh.
c. Infinitive clauses: more or less impoverished (raising more than control), restructured clauses more than non restructured clauses.
Restructured Clauses e.g. raising complements (or ECM): truncated so that high D's (pronouns, definites) are disallowed (cf. clitic climbing) but not so high that existential are disallowed;

(57) A unicorn is reported to be in the backyard   Q-lowering: possible: report> exist.
small clauses are so small that even existentials are outside:

(58) a.   Someone seems [t to be sick]   Amb some>seem, seem>some)
     b.   Someone seems [t sick]   *seem>some (Williams)
     c.   Some$_1$ boy seems to know him   Some$_1$> seem and him in embedded clause

→ "D-splitting" and predicate decomposition go hand in hand

Something similar in the case of A-bar movement?:
(59) Longobardi's examples (see Cinque, 94)
 How many pictures of each other does he wonder whether they should sell

(60) Hancoop 97
a.   How many books should John read
b.   How many books do you think noone should read
c.   How many books about himself do you think no one should reas

this suggests partial reconstruction is also possible for A-bar movement : D/Q stays high, NP reconstructs
(--> NPs and Q's can be in separate clauses and picked up on the way).

Inside VP: Synthetic Compounds

If Ds split away from NP, lowest domain (VP) contains only predicate and NP.
Claim: it is that where syntax-based morphological compounding (head movement) operates.

(61) [$_N$ bear]-hunt-ing   [$_N$ truck] driv-er

Properties (e.g. Williams, Grimshaw):
i.   Nouns can saturate internal argument slots (*book reading of books).
ii.   Only one argument can compound: * child-gift-giving
iii. Only the lowest argument can compound: * Child giving of gifts, gift giving to children
iii' Subjects do not incorporate
iv.   Q's, Plurals, pronouns and names do not incorporate: *she admirer, Billy hater, bears hunting.

a. incorporation is only allowed to a selector (mvt is triggered) → i
b. man giving boy gift = ing [man [cause [boy [be [with gift]]]] and with+be+cause=give
[[[gift with] be] cause] ing: OK
[[[boy [[gift with] be]] cause] ing]: no good
phonological rebracketing between an affix and an adjacent host
Subjacency in phonological rebracketing → ii

c. Suppress gift (e.g. silent or trace, otherwise not possible) still two brackets → iii
v.   Subjects do not incorporate: follows from i and ii if:
d..   Intransitives are covert transitives
      Unaccusatives always take a (covert) directional object

e. a Q, plural, etc.. is in effect as an additional element (since outside VP) → iv

Why are syntactic representations built this way? :Theoretical Considerations

 Assuming
i. D-splitting is correct (additional evidence: cf. section 6)
ii. Predicate decomposition is correct
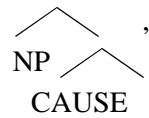iii. Synthetic compounding is syntactic

1. What general principle would force these conclusions? Strong UTAH would.

Strong UTAH: a particular thematic relation between a particular predicate and an argument is always
syntactically encoded in the same way.

Kill NP ≡ NP die → NP must be in the same structural relationship to kill as it is to die → decomposition

read [$_{DP}$ the [$_{NP}$ books]] ≡ book reading → D's outside "thematic" complex

2. Why is SUTAH true? Would follow if there are no theta roles (cf. e.g. Dowty's work on difficulties) but rather if all there is are particular subject predicate or predicate complement relations with elementary predicates.

If " agent" is ⟨triangle⟩ , then   SUTAH is necessarily true for agent, etc…

NP ⟨triangle⟩
    CAUSE

This entails an <u>exclusively</u> transformational approach to
a. nominalizations: The destruction of the city = the tion of destroy the city (roughly adnominal structure on a small clause), -er (and other derived nominals): book reader =er who read book (roughly, relative clauses on a small clause)
b. double object alternations, passive, instrumental alternations etc… (pace finer grained semantics)

3. Consequences

[[book read] ing] → [book [reading]]
[book read] er]   → [book [reader]]

But then, there are two ways to affix: head movement and phonological rebracketing.
Suggests **head movement does not exist**, only movement to spec.

```
  VP              IP          TP                  TP
ty            ty        ty              ty
N/NP  V          VP    ing      V/VP  T          VP        T
book    read    ty            walk   ed        ty     ed
            book   read                      slowly walk
```

This allows a treatment of the English without essential lowering. English /French variation is size of peid piped constituent to [spec,TP].

Additional Evidence and Extensions

1. clitics
2. scrambling of pronouns (obligatory) and certain type of DPs
3. D-quantifiers (determiner quantifiers) superficially doubling as A-quantifiers (adverbial quantifiers): beaucoup, peu, trop, assez, ...
(62) Jean a perdu beaucoup de temps / Jean a beaucoup perdu de temps   Ambiguous
     John has lost much (of) time / John has much lost of time.
4. Floating quantifiers
Jean a tous voulu les voir / Il aurait tous fallu que tu les achetes
John has all wanted to see them / it would have been all necessary that you buy them

Bach-Peter Paradox with Antecedent Contained Deletion

(63) John put more marbles than Marie in as many drawers as Suzanne
     (meaning: John put x many marbles in y many drawers
                     Marie put less than x many marbles in y' many drawers
                     Suzanne put x' many marbles in y many drawers)
In other words, roughly speaking, all of John, Mary and Sue put marbles in drawers, but John "handled" more marbles than Mary, but as many drawers as Sue.

 (i) parallels Bach-Peters paradox for the pronominalization transformation w.r.t. May and Fiengo (1994) 's infinite regress paradox for the "reconstruction" of the ellipted constituents (marked here as ____)

(64) The pilot who chasing it hit the Mig that was following him

(ii) cannot be resolved in the way they (by QR) or Hornstein (1995) (by A-movement) propose
(iii) requires representations in which D/Q and NPs do not form constituents: the VP to reconstruct is in bold

(65) John Qx Qy **[put x marbles in y drawers]**

(iv) the existence of these representations follow from the systematic possibility to reconstruct moved constituents and D-splitting.

Some Further Questions and Extensions

(66) * his mother seems to every boy to be sick
(67) friends of his mother seems to every boy to be sick
(of introduces a clausal structure, cf. Kayne 95,96)
(68) each other's friends seem to the boys to be sick
(69) friends of each other seem to the boys to be sick

Polarity items: *any* within its clause higher than negation. (OK for objects but not for subjects
(70) *anybody did