Reconstruction, Constituency and Morphology
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Thesis: On the basis of reconstruction effects (or lack thereof), I suggest:
(i) polyadic predicates are syntactically represented by as many clauses as there are individual arguments.
(ii) individual argument saturation is by bare NPs (no D, no number)
(iii) a strong transformationalist thesis for derivational (and inflectional) morphology

1. Background Assumptions:

(i) Binding and Scope evaluation principles are sensitive to the position occupied by a phrase: e.g. the binding/scope principles:
   Principles A (anaphor binding) , B (pronominal) , C (R-expressions), D (pronouns interpreted as variables bound by QPs must be in the scope of this QP - i.e. c-commanded by this QP at LF.
(ii) Reconstruction effects exist in some cases:

(1)Which friends of each other does John say **they/*Bill** visited **t**
(2)*Which friends of each other did John tell **t** that **they** visited you

⊗If movement → reconstruction: Yes for A-bar movement (No for A-movement?)
   If connectivity → movement: in general No: e.g. pseudo clefts

But cf. recent deletion analyses e.g. Den Dikken, …Schlenker, 98

(3) What every man likes best is his car
(4) What every man likes best is ~~everyman likes best~~ his car

if connectivity → copying
 & copying = Deletion or Movement = Reconstruction or Ellipsis
then, putting aside copy ellipsis

Reconstruction is a defining property of movement **(except perhaps for A-movement)**

2. A-reconstruction:

(i) A-movement can reconstruct_ (as argued in various places, e.g. Barrs, 86, Lebeaux, 98) w.r.t. to binding and scope evaluation.
(ii) Relevant Configurations for Binding:

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

Configuration #1 Movement from Z to X provides an antecedent for Y that it would otherwise lack (allowing principles A or D to be satisfied or causing C to be violated).
If Binding A and D satisfied at visible output
of movement: reconstruction is not obligatory   TRUE
Otherwise (if A and D violated), reconstruction obligatory   FALSE (in the general case)
If C violation at visible output, reconstruction is impossible   FALSE
Otherwise reconstruction is allowed   TRUE

Important Note: Necessary for A and D at least; X is an A-position:

(5) * These children, pictures of each other showed you knew t   derived c-command not OK, not WCO (Lasnik and Stowell)

(6) What men$_i$ did pictures of them$_{*i}$ /*each other showed you knew   WCO

Configuration #2 Movement from Z to X removes an antecedent (Y) for Z that it would otherwise have: (preventing principles A or D from being satisfied or removing a violation of C).

If A and D violation at visible output: reconstruction is impossible	FALSE
If A and D not violated, reconstruction is possible	TRUE
If C violated at output, reconstruction is obligatory	FALSE (in the general case)
Otherwise (if no C violation), reconstruction is not obligatory	TRUE

2.1 Principle A

#1	X		Y		Z		
(7) OK	They	seemed to	each other	[	t	to be pale]	subject is an A-position
(8) OK	They	struck	each other	as [	t	being pale]	reconstruction not obligatory

Controls:
(9) * it seemed to each other [that they were pale]   no binding from rec. position
(10) * it struck each other [that they were pale]   " "
(11) * it seemed to him [that John was sick]   Principle C: y c-commands z

#2	X		Y		Z		
(12) OK	some pictures of each other	seemed to	them (/*me)	[	t	to be good	rec. possible *some>seem, OK seem>some
(13) OK	some pictures of each other	struck	them (/*me)	as [	t	good]	rec. possible
(14) OK	some stories about each other	pleased	the boys (/*me)	t			classical psych

Controls:
 (15) * some pictures of each other seemed to me [t to be good]   antecedent necessary

Conclusion:
Subjects are A-position in the relevant sense (cf.(5))
Reconstruction possible but not obligatory (in case of A-movement, i.e. Case based movement).
Note: Reconstruction not theta based (≠ hierarchy between coarguments -cf. seem or strike → crucial reference to structural embedding)

2.2 Principle D:

#1	X		Y		Z		
(16) OK	Some child	seemed to	his	mother [	t	to be pale]	rec optional
(17) OK			himself				

= there was a child who seemed to his mother/himself to be pale   Some> seem, * Seem> some
≠ it seemed to x that there was some pale x   (Some > seem)

(18) Some child seemed to Bill to be pale   scope amb: rec possible: May's Q-lowering

#2	X		Y		Z		
(19) ok	Some pictures of his child	seemed to	everyone	[	t	to be good]	rec. possible binding only if seem>some
(20) ok	such evaluations of his speech	struck	every child	as [	t	unfair]	rec. possible (classical psych)

Control:
(19) it seemed to everyone that there were some new pictures of his child ….
(21) * the new friend of his father painted every child   WCO if any.
(22) * such teachers of her children call every mother   WCO

Conclusion: rec possible but not obligatory (in case of A-movement, i.e. Case based movement)

2.3 Principle C

#2	X		Y		Z		
(23) OK	some pictures of John	seem to	him	[	t	to be good]	rec. optional some>seem, *seem>some

            :
(23) = there are some pictures of John which seem good to John
      ≠it seems to John that there are some good pictures of him

If something else needs reconstruction (cf. Chomsky, 1995, on certain idioms) reconstruction clearly triggers Principle C effects:

 (24) Grand soin de Marie me / *lui semble avoir été pris   rec possible--> C violation
     Good care of Mary seemed to me/ her to have been taken

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)

2.4 Scope (see also Lebeaux, 98)
(25) Two senators are expected to get caught in every sting operation   OK Expect >Every > 2
(26) Mary seem to two senators to get caught in every sting operation   *Every> 2,
(27) Two senators seem to each other to get caught in every sting operation   *Every > 2, *2>every

2.5 Problems:
1. Mystery: no explanation
A-movement Reconstruction always optional
A-bar movement reconstruction sometimes required

2.Consistency: A-reconstruction sometimes possible but not always

#1	X		Y		Z		
(28) *	Himself	seemed to	John	[	t	to be sick]	rec impossible
(29) *	He	seemed to	John	's mother [	t	to be sick]	rec impossible
(30) *	Himself	killed	John				rec impossible

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(28) and (29) should be OK. Comparing with examples with <u>pictures of himself</u> instead of <u>himself</u>: Why should the internal structure of the constituent containing the anaphor matter to whether reconstruction is possible or not?

#2	X		Y	Z	
(31) *	Friends of each other	slapped	them		rec impossible (WCO)
(32) *	friends of his parents	slapped	every boy		rec impossible

Recall that given the Predicate Internal Subject Hypothesis + AGR based Case theory:

(33) John saw Mary: John$_j$ ...Tense...Mary$_k$ [$_{VP}$ t$_j$ .. [V.. t$_k$..]]

Same Problems with other Principles e.g <u>Principle B</u>
(34) * John expected him to be likely t to win   rec impossible
(35)   John expected it to be likely that he would win

2.6 Non Solutions:

<u>Principle C everywhere?</u> (Lebeaux, 94, 98, Heycock, 95..)
(i) ad hoc
(ii) inconsistent with internal structure of DP:
     (36) His self (himself) killed John / His brother killed John
     (37) Your selves kicked John and you
(iii) Inconsistent with apparent overt violations (Fiengo &May, 95, Fox, 97):
     (38) ??/* You sent him the letter that expected you would write   QR
     (39) OK You sent him the letter that John expected you would ~~send him~~   ACD -QR
(iv) not applicable to (31)
(v) creates problems: some pictures of John seem to him [t to be good]

<u>Scope Economy (Fox, 98):</u> Lower only if it makes scopal differences
(i) applies to (28), (29) and (30) but not applicable to (31)
(ii) fails to generalize to other cases: e.g. Q-scope

(40) A unicorn seemed to Bill [t to be grazing in his backyard]
     There is a unicorn which seemed to Bill...   ∃ > seem
     It seemed to Bill that there was a unicorn ...   seem > ∃

(41) ***Aucun exposant** semble [**ne** falsifier la conjecture de Fermat]
     No exponent was proven to falsify Fermat's conjecture
     OK there is no exponent s.t. it was proven to falsify F.C.   No >prove
     *   it was proven that no exponent falsifies Fermat's conjecture   *prove>no

(42) Everyone is not supposed to come   not>∀, ?not > ∀
(43) Everyone is supposed not to come   *not>∀, not > ∀

<u>Weak Qs reconstruct, Strong Qs do not: why?</u>

3. General Proposal:

> (44) Movement Reconstruction Equivalence: MRE
> <u>Reconstruction is a defining property of movement</u> ~~(except perhaps for A-movement)~~

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> If (movement → reconstruction) →(If no reconstruction → no movement)
> Element to reconstruct never was moved from where we want to reconstruct it.

3.1 First case:

(31) Friends of each other killed them
(32) Friends of his parents killed every boy

Standard: Chomsky , 91, etc..
Alternative: Enriched VP Shell → lower VP license Case to the object
(Case position of the object is higher than the lowest position of the subject cf. Sportiche, 90, Koopman and Sportiche, 91, Travis 91, Collins 92, Noonan, 92….)

Standard	AGRnom	[AGRacc	V1	[Ext arg	[Int. Arg	V2]
	Friends of each other$_j$	Everyboy$_k$	V1	t$_j$	t$_k$	V2
Alternative	AGRnom	[Ext arg	V1	[AGRacc	[Int. Arg	V2]
	Friends of each other$_j$	t$_j$	V1	Everyboy$_k$	t$_k$	V2

Conclusion: Calling an enriched VP a "clause", Binary predicates are represented a two clauses.

3.2 Second Case

(28) * Himself seemed to John [t to be sick]
(29) * He seemed to John's mother to be sick

Enriched VP Shells clearly not good enough since all these cases are raising cases.
a. MRE → no movement
b. (a) conflicts with Raising
c. **almost all** arguments for raising are based on selection of NPs never of Ds
d. NPs raise DPs do not (necessarily, cf. later)

Problem 1

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

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

(Note: does not subsume the previous case because of (31) and (32))

Conclusion: Ds and NPs not necessarily generated as constituents

3.3 Clause Structure

Conclusions #1: Lexical Decomposition
to avoid crossing problems, N-ary predicates must be represented as n clauses.

Each clause contains both at least a functional property (Case) and a Lexical property (VP). Given the locality of θ-assignment, each clause contains its own predicate (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).

Conclusion #2: <u>D-splitting</u>
A D can be generated outside the thematic complex containing its NP:
Again given the locality of theta assignment, and given that V always select the N head of NP and never the D head of DP, this suggests that
<u>Ds (and more generally everything non thematic associated with N, e.g. plural number) is outside VP</u>

A "clause" is built by a succession of uniform layers:
                      D properties - Case - Number - Thematic properties
                      wh, def,...   at most one NP arg. (+one clausal arg.)

(45) 'the boy left': $[_{DP}$ the] $[_{AGRP}$ AGR- sing - $[_{VP}$ $[_{NP}$ boy] $[_V$ leave]]   →
                 [the boy] [~~boy~~ leave]   = the boy is a boy who left   (derives conservativity?)

<u>Proposal</u>:
Failure to reconstruct a D means that the clause in which its NP associate originates does not allow this kind of quantification.

<u>Implementation</u>:
Different Clausal types allow different kind of Ds in them: clauses can be more or less impoverished (unmet challenge: reduce this to selection)

a. Wh-clauses allow: everything
b. Simple tensed clauses, complement tensed clauses, for-to infinitives: disallow wh
c. Control infinitives ??
d. Raising infinitive clauses, ECM, restructured clauses: disallow strong Ds
e. Even smaller clauses: Solving Williams ' paradox

(46) A unicorn is reported to be in the backyard   report> exist.
(47) a.   Someone seems [t to be sick]   some>seem, seem>some)
      b.   Someone seems [t sick]   *seem>some

<u>Apparent contradiction</u>: where do Ds with embedded scope originate?
Different Clausal types allow different kind of Ds in them ≠ Different Clausal types allow different kind of quantification over them:

(48) Some number was proven [to divide every prime number]   OK seem > every
     it was proven that every prime number is divisible by some number
(49) Some madman was proven [to have killed every victim]   OK seem > every
     it was proven that every victim was killed by some madman or other

(50) Marie semble **ne** lire **aucun livre**   OK seem >no
recall:
(41)***Aucun exposant** semble [**ne** falsifier la conjecture de Fermat]

(49) [was proven [$_{XP}$ some madman cause [$_{YP}$ every [victim die]]]]   V1+V2 = kill

XP does not allow universal Ds but YP does

→ "D-splitting" and Lexical Decomposition must go hand in hand: why??

3.4 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.

(51) [$_N$ 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

4. Theory: Why both D-splitting and Lexical decomposition?

Assuming that
i. D-splitting is correct
ii. Predicate decomposition is correct
Observing that
iii. Synthetic compounding is predicate saturation by NP

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

S(trong) 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 were no theta roles at all but only subject predicate or predicate complement relations with elementary predicates.

If " agent" is **t y** , then   SUTAH is necessarily true for agent, etc…
          NP **t y**
            CAUSE

Thus syntax does not manipulates words: it only manipulates elementary concepts CAUSE, DO, STATE, NOT, WANT …and similarly in other domains (Nominal, Prepositional?)

3. Consequences
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)

5. 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, ...
(52) 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
(53) Jean a tous voulu les voir / Il aurait tous fallu que tu les achetes

6. Some loose ends

(54) * his mother seems to every boy to be sick
(55) friends of his mother seems to every boy to be sick
(of introduces a clausal structure, cf. Kayne 95,96)
(56) each other's friends seem to the boys to be sick
(57) 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
(58) *anybody did not leave)