Basic Question:

(1) Why do certain types of sentences have derived nominal counterparts, and others not?

- Establish the generalizations
- Examine some accounts:
  - Remarks on Nominalizations (1970)
  - Unambiguous Paths (Kayne 1981, 1984)
  - Knowledge of Language (Chomsky, 1986)
  - Koopman (1991): Licensing Heads: I did not have time to go into this
- Goal: explore ways in which the generalizations can be made to fall out from the hierarchy of merger and the history of the derivation. This account will have to rely on the underlying hierarchy (and the surprising) way surface constituency is built up, the role of of and K, the structure of DPs, and the licensing of small clause predicates.
  - Koopman (1991): Licensing Heads: I did not have time to go into this
  - We focused in lecture 2 on ECM/of insertion, and did not have a chance to return to raising

(2) lexical decomposition (v, V, and many many other heads, ..)
- Cartographic approach (Cinque 1999, Rizzi, Rizzi and Belletti 2000...)
- Morphology is syntax based/ input to morphology is syntactic (Distributed Morphology) derivational system

Parametric variation within the language is of the same nature as parametrization crosslinguistically. (see also Kayne 2004)

One significant parameter responsible for parametric variation is height of attachment in a given spine. ((Height of attachment is reflected by phonological transparency/ opacity)
  \[\rightarrow\] no uniform treatment of all derived nominals in English (or crosslinguistically.)
  (nominalizer can take different parts of the spine as its complement (…, Nthelitheos, 2006).

[I discussed the following, but it did not end up playing any role in the discussion]
- Cyclic spell out: spell out head of phase and complement(s).
  (+possibly don’t spell out Spec, phase: this is when you get silent categories)
  (Kayne, 2006 Principles of Pronunciation) (see also Koopman (1996) “the Spec head configuration” for principles of pronunciation and non-pronunciation (and what can we learn from elements that disappear)

Remarks on Nominalizations. Chomsky, 1970

“Derived nominals .. are very different (from gerunds) ….. Productivity$^1$ is much more restricted, the semantic relations between the associated proposition and the derived nominals are quite

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$^1$ For an excellent discussion on the notion word see Chapter 1: DiSciullo and Williams 1980)
varied, and idiosyncratic, and the nominal has the internal structure of a noun phrase….. They raise the question of whether the derived nominals are in fact transformationally related to the associated propositions.” P.16-17

An illustration:
(3) a. John is eager to please
b. John has refused the offer
c. John criticized the book

Gerunds
(4) a. John’s being eager to please (possessivization ‘s)
b. John’s having refused the offer
c. John’s criticizing the book

Nominalizations (derived nominals)
(5) a. John’s eagerness to please Mary (..control is fine)
b. John’s refusal of the offer (possessivization ‘s and of –insertion)
c. John’s criticism of the book

But: for some sentences there are no nominalized forms:
(6) a. John is easy (difficult) to please (Remarks18:(6)
b. John is certain (likely) to win the prize
c. John amused (interested) the children with his stories

(7) a. *John’s easiness (difficulty) to please
b. *John’s certainty (likelihood) to win the prize (we return to these judgments below)
c. *John’s amusement (interest) of the children with his stories

Asymmetries: a list of asymmetries ad symmetries
(8) No tough movement within derived nominals
No raising to subject within derived nominals
No psych verbs nominals with experiencer objects
No raising to object/ECM within derived nominals
(9) a. our election of John (to the presidency)
b. *our election of [John (to be) president]
c. our consideration of John (for the job)
d. *our consideration of [John (to be) a fool]

No DP Part order.
(10) a. his looking up of the information
b. *his looking of the information up
c. his defining away of the problem
d. *his defining of the problem away

No double object constructions (Kayne 1984)
(11) a. He gave John a book
b.* the gift of a John of a book
c. John was given a book

2 Chomsky reports some speaker variation for these judgments.
d. *John’s gift of a book(*John (=goal))

e. He gave John a book

f. The gift of a book to John

No object control: Kayne (1984, p.153) : if persuade takes a simple object, the
nominalization is OK (12b):

(12) a. *Mary's persuasion of John to leave
b. Mary's persuasion of John

(Kayne concludes that a lexical item cannot have two complements)

Other examples from Kayne:

(13) *Mary's compulsion of her husband to quit his job
*her encouragement of John to take up linguistics
*his conviction of Mary to take up linguistics
*their obligation of Mary to run away with him
+ other examples with inducement/impulsion/permission/allowance/defiance (ex 84)

To these we can add other asymmetries between clauses and derived nominals, some of these are
scattered around in the literature (Remarks, and Knowledge of Language). Concentrating on Case
and the Subject position:

<table>
<thead>
<tr>
<th>clauses</th>
<th>derived nominals</th>
</tr>
</thead>
<tbody>
<tr>
<td>accusative case</td>
<td>*no accusative case/of insertion</td>
</tr>
<tr>
<td>nominative case</td>
<td>“genitive” case –’s and of.</td>
</tr>
</tbody>
</table>

Both clauses and DPs have a subject position, with different properties:

- EPP
- no EPP
- no PRO (what it can host)
- _’s
- no it-clausal expletives it’s or of-it
- *no there expletives
- *no inverted predicates
- *no clausal subjects

Symmetries in complementation:

No problems with PP complements, or clausal complementation (CPs) including control:

(14) a. John’s eagerness [ PRO to please]
    b. John’s certainty [that Bill will win the prize]
    c. John’s amusement at the children’s antics
    d. the question (of) whether John should leave
    e. the plan [for John to leave]
    f. the excuse [that John left]

Control is possible:

(15) the attempt [CP [PRO to ..]
The difference in behavior between control and raising is important, and it is worth checking if it is taken into account in the literature on control: my impression is that it is not. (It raises questions for analyses that reduce control to raising)

The analysis in Remarks (Chomsky 1970)
- productivity, semantic transparency (lots of idiosyncrasies), differences with clausal structures (certain transformations do not apply within nominalizations).

Lexicalist hypothesis: (first mention..)
we might extent the base rules to accommodate the structures directly (I will refer to this as the lexicalist hypothesis), thus simplifying the transformational component (p.17)

The strongest and most interesting conclusion that follows from the lexicalist hypothesis is that derived nominals should have the form of base sentences (base generated structures), whereas gerundive nominals should have the form of transforms..

How does this work:
- No raising to subject, since raising applies only in clauses. (we are in the pre-NP movement era: this leads to the question why Ns cannot take raising complements)
- no tough movement (not clear why: tough movement is derived through extraposition: no extraposition in DPs, …)
- psych verbs problem: 2c is a derived sentence
  causatives: the growth of tomatoes (only inchoative meaning)
  John’s growth of tomatoes (John CAUSE tomatoes grow)
- (no dative shift: transformation which applies only in clauses; raising to object idem..)

Problems:
- What to do with passive within NPs?
  Passive in NP is different from passive in the clause: Chomsky assumes passive within DPs is derived by NP postposing and NP preposing. Passive within the clause is verbal (the transformation mentions the verb)
  - If NP preposing is possible within NPs, why isn’t tough movement (often analyzed as a case of NP preposing)?
  - Is raising to subject really excluded? (problems with the interpretation of the data, see below)
  - how to treat –ing nominalizations:

This leads Chomsky to the following analysis:

3 I did not talk in class about the co-called Meyers generalization: no derivational morphology can be applied to a zero derived form. It remains to be shown how the cases Meyers used fall out from the present assumptions.
“In other words, we postulate that there is a feature [+cause] which can be assigned to certain verbs as a lexical property. Associated with this feature are certain redundancy rules which are, in this case, universal, hence not part of the grammar of English, but rather among the principle by which any grammar is interpreted. These principles specify that an intransitive with the feature [+cause] becomes transitive and that its selectional features are systematically revised so that the former subjects becomes the object. In order to account between (b) and (c), we must restrict the feature [+cause] with respect to the feature that distinguishes derived nominal such as *growth from forms such as growing, limiting it to the latter use. Unless there are some general grounds for the hierarchy thus established, the explanation offered earlier for the non-ambiguity of (57) is weakened, since it involves an ad hoc step. There is, nevertheless a partial explanation and a natural way of stating the complex facts,… (p.59-60)

**A data problem:**
Is raising to subject really excluded? How bad in raising to subject? (See in particular the discussion in Kayne, 1984)

- The problem of *likelihood of V-ing* versus *likelihood to V*

  Remarks: p. 44. Some speakers apparently accept “John’s likelihood of leaving”, though for me these are entirely unacceptable. Perhaps such expressions can be derived, by an extension of NP preposing from *the likelihood of John leaving*. Such expressions as *John’s likelihood to leave* apparently are acceptable to no one, exactly as predicted by the lexicalist hypothesis.

(22) a. *John’s likelihood of leaving
   b. *John’s likelihood to leave

*(if (a) is indeed pretty acceptable, it must be the case that some kind of NP movement (i.e. raising to subject) is indeed available)*

- The problem of *tendency* and *certainty*: Many speakers like:

(23) a. John’s tendency to speak loudly.
   b. John’s certainty to perform well

These seem fine in as far as a control reading is possible: John has a tendency to speak loudly. the tendency of John to speak loudly (Postal)).

Can the control reading be excluded?4

(24) a. *Mary’s appearance to have left
   b. *her proof to be a good companion
   c. *its likelihood to be there
   d. *your book’s certainty to be a success

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4 I did not get to talk about independent restrictions on what can raise to ‘--s in English (see Mona Anderson, Longobardi..)
Modern accounts:

problem lies with N. Kayne, 1984 (N is not a governor), Chomsky 1986 (Case assignment by N works differently from case assignment by V),
problem lies with licensing the stranded predicate and with N (No cannot incorporate the predicate) Koopman 1991


1981, 1984:
Asymmetries follow from a property of N, which distinguishes it from V:

(25) N cannot govern across a clause boundary (but V can).

[A parenthesis: could the generalization be:

→ Ns cannot take small clause complements, but only phases56
(All cases of nominalizations are excluded where the licensing of some element inside the clause depends on an element outside of it: could it be the case that only “phases” (i.e. complete constituents that can be fronted, topicalized) seem to be allowed as complements of Ns)

We discussed that this theory would rule out the bad cases and would rule in the following:

N PP
P [CP] (including tensed CPs, infinitival control complements, for to complements, )

However, it would also run into apparent trouble with the fact that vP does not seem to be allowed as complement of a derived nominal:

* N DP v (*the letting of John eat/*The letting eat)

“N cannot governs across a clause boundary” accounts for the bad cases either as ECP violations (which requires empty categories to have a lexical governor (L-governor), or as Case filter violations (there is no ECM with these derived nominals since Case assignment requires government):

(26) Single complement is allowed: no S boundary

The city’s destruction the city
the destruction of [the city]

(27) No tough movement within derived nominals: (see discussion in Kayne)

*[John’s easiness [CP [ PRO to please [John]],
*[John’s easiness [CP [ PRO to please [John]],

No raising to subject within derived nominals
*its likelihood [ TP it to be there

No NP movement over a clause boundary
*her acknowledgment by her superiors [TP [her] to be quite clever

5 "a citation from Kayne: the unambiguous path requirement on government could also be put as follows: Intolerance (by the language faculty) of a specific kind of formal ambiguity has as a consequence that no lexical item can have more than one immediate complement.

6 Under this analysis it is not simply the fact of having two complements, but the fact that they form an embedded constituent which makes derived nominals impossible
No psych verbs nominals with theme subjects and experiencer objects
(I missed if Kayne talked about this or not)

No raising to object/ECM within derived nominals
(28)* John’s assumption [TP his article to contain several errors]

No DP Part order.
  b. *his looking [the information up]

[To this I add that although there are verb particle constructions, there are no noun particle constructions: [I don’t know the source of this observation]
  a. *a call up John

No double object constructions (Kayne 1984)
(29)  a. He gave John a book
  b.* the gift of a John of a book
  c. John was given a book
     d. *John’s gift of a book(*John (=goal))
  e. He gave John a book
  f. The gift of a book to John

No object control: John to leave must form a subconstituent
(30)  a. *Mary's persuasion of John to leave
     Mary’s persuasion [S John to leave]
  b. Mary’s persuasion of John

Other cases for which small clause analysis is forced (see Kayne for more examples!):
(31)  rob [someone of her money]
     *The robbing of someone of her money

As Kayne discusses: the gift of a book to John will require no small clause, since it is OK.

Problems:
(32)  a. Why cannot N govern across a clause boundary?
     b. How can we motivate a small clause analysis for all these constructions? (note that Kayne’s paper is pre VP shells, in a way it is a precursor of the shell structure)

* N[SC DP Pred]

Chomsky (1986). Knowledge of Language

(33)  Structural Case (nominative and accusative)
     (T and v assign structural case: S-structure)

Inherent Case (genitive, ‘s and object of P) (N, A and P assign inherent case; D-structure)

Case filter *[NP ] where NP has phonological matrix and no case

(1) Case assignment:
     Inherent Case can only be assigned to a DP under theta role assignment
“Assume furthermore that the association of inherent case and theta-role assignment extends to case realization (spell-out). Then we have the following uniformity condition:

If x is an inherent case assigner than x Case marks NP if and only if theta-marks the head of the NP chain” (192:272)

(34) a. destruction [the city] assign genitive under government/theta role assignment
b. destruction gen[the city]
 c. gen[the city] destruction

Realize case: of [the city] the city ‘s [NPNP ___]

Spell out: ___ as ‘s

.(of DP (of insertion)

(35) This view is compatible with Distributed morphology: Halle and Marantz, 1993, Embick and Noyer (2001)8. Case and agreement affixes are added in the morphological component (they are not present as syntactic projections (narrow syntax: only meaningful elements are syntactic atoms). Under this view, the syntax just would not care about of or ‘s etc.

(36) ..No Case assignment or NP movement over a clause boundary.

*The gift of John of a book (goal theta-role is assigned by to, of is a default, therefore no of possible)

John’s story (story assigns theta role and inherent Case) what about the C for?

(37) p. 203 Recall that this analysis represents one selection among a maze of options. The assumptions are natural and straightforward but obviously far from uniquely determined by the relevant data. One would naturally expect that further inquiry into English and other languages will show that the assumptions proposed here are wrong, at least in detail, quite possibly in general direction.

end of day 1..


I did not have time to really go into this, though I would like to see if this does indeed enter into the equation.


Heads must be licensed; this is achieved by overt or LF incorporation of V.

(38) V allows LF incorporation, N does not

7 chain: (trivial chain: external merge) not CHAIN (relation between there and associate (excludes expletives in Spec, DP).
8 Movement after syntax, Linguistic Inquiry 2001
All predicate that are unlicensed at S-structure are excluded from the complement position of N (as well as from specifier positions etc, subject positions)

Where to go from here? Towards a modular account..

- What do nominalizations look like?
- Is the theory of inherent case independently motivated? How should we construe the difference between structural and inherent case?

The structure of nominalizations.

Recall: Parametric variation within the language is of the same nature as parametrization crosslinguistically. One significant parameter responsible for parametric variation is height of attachment. (Height of attachment is reflected by phonological transparency/opacity)

→ no uniform treatment of derived nominals. (nominalizer can take different parts of the spine as its complement (… , Nthelitheos, 2006).

Start with English, a problem from Remarks (see above):

(39) a. The growth of tomatoes tomatoes grow
    b. * John’s growth of tomatoes John grows tomatoes
    c. The growing of tomatoes Someone grows tomatoes Tomatoes grow

What exactly is the difference between b and c? → where the N(-th) and N(-ing) merges/different selectional properties of these heads.

(40) Selection: -th, N, merges with root. (or very low piece of structure)

N
[th]
tomatoes GROW

+ algorithm to convert N + GROW into [Growth]
+ projection of N leads to nominal properties .. (a nominal predicate)
+ understanding of how of-insertion work

→ Only what is licensed by the lowest shell can be present in the nominalization. All other properties are properties that depend on the presence of N

(41) nominal –ing complements: (-ing can merge above external argument)
+ algorithm to convert the heads into [[grow\v] ing]
+ what exactly is this head v? \rightarrow It introduces the grower (external argument…)
+ how does of-insertion work?
  * the head responsible for accusative case must be higher than vP, i.e. this nominal ing does not take accusative as its complement.
  * [alternatively: accusative case is available but it gets overridden by a higher genitive. case stacking with all its problems]

[Problem: but can -ing also attach to rootP?]
  the growing of tomatoes depends on a lot of sun
Does it attach to a verbal category? Does Voice play a role etc
it seems clear though how to decide this issue empirically].

(42) -ion merges with vP: selects for
    formalization
    >ion > ize >BECOME> formal

(43) ing- gerunds: (CPs containing PRO, -ing is high, big verbal spine, (includes adverbs, perfect, perfective, passive etc, external distribution of DPs; gerunds also allow raising out of them, absence of K and D/C) (John started going to the movies)

continues on handout 2