Contemporary syntactic theory is in its present form a young field born in the 1950th. If we look at the history of the field, we can see that it has been progressing discontinuously with periods of rapid growth in the understanding of the general structure of the language faculty, followed by periods of consolidation of this understanding based on considerable expansion of its empirical base defined by its understanding, and in turn informing it. Stages: roughly 1955-1973; 1973-1992)

In the past few years it has become clear that we are now at the beginning of the third cycle of fast theoretical progress that will guide the theoretical and empirical research for the foreseeable future. Fundamental question are being raised (questions of economy), radically new ideas are being explored (questions of theoretical parsimony).

These questions have of course direct implications for the understanding of historical linguistics.

(1) Kayne (1994) Antisymmetry  
Chomsky (1993), (1994)  
Koopman (1994) Licensing Heads

(2) a. Binary Branching structures

```
XP
  Spec X'/XP
     X YP
```

no multiple Spec positions  
no adjunctions.  
Adjuncts are accommodated within this structure (Sportiche, 1994;

<table>
<thead>
<tr>
<th>Type 1</th>
<th>Type 2 (Cinque, 1994, 1995)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP (AdvP)</td>
<td>HP</td>
</tr>
<tr>
<td>H' (adv')</td>
<td>QP</td>
</tr>
<tr>
<td>Adv</td>
<td>H'</td>
</tr>
<tr>
<td>lentement</td>
<td>Q'</td>
</tr>
<tr>
<td>Jean a soigneusement VP</td>
<td>H</td>
</tr>
<tr>
<td>carefully VP</td>
<td>VP</td>
</tr>
<tr>
<td></td>
<td>[ Adv [VP e]</td>
</tr>
</tbody>
</table>
Jean a VP soigneusement [VP Adv VP e]
    VP carefully

Jean a parle a Marie en de rares occasions VP [en [de [ rares occasions]
    VP en PP

b. Universal base hypothesis (no difference in hierarchical structure, no high or low
negation; head initial structures, lots of structure!)

c. Movement operations:
   head movement (left adjunction only)
   XP movement (leftward only): Much more than we are used to: extensive
   pied-piping. (NP, NumP, PlaceP, AdjP, VP (to the left of certain adverbial heads, etc.),
   NegP, IP, TP, CP etc.

d. LCA Linear Correspondence Axiom: --Relation between hierarchical structure and
linear order is rigidly fixed: asymmetric c-command maps into linear precedence.

Linear Correspondence Axiom: d(A) is a linear ordering of T
(A: contains all pairs of non-terminals such that the first asymmetrically c-commands
the second. T= set of terminals)

“To a significant extent, the LCA-based theory of syntax proposed here allows one
to have the all too infrequent pleasure of seeing the theory choose the analysis.
Kayne, 1995, p 132”

(3) How does the language learner/ the linguist know where some element is pronounced?
Pied-piping, head movement, or combination hereof?

(4) LCA enormously reduces the possibilities, even more so than Kayne realizes-->. LCA
and the doubly filled C filter.

(5) Kayne’s problem: how to allow for “Spec” positions?
   XP
   \[
   \begin{array}{c}
   \text{YP} \\
   \text{Y} \\
   \text{y} \\
   x
   \end{array}
   \]
   X’acc Y <x, y.,> YP acc X <y, x>.

   Kayne’s proposals: remove X’/XP from the set of c-commanders: this will leave only YP
   acc X --> y precedes x: segments/categories--> restrict c-command to categories .

(6) c-command: X c-commands Y iff X and Y are categories and X excludes Y and every
category that dominates X dominates Y.


Specifying that Y is a category derives the prohibition for moving N’s. (the trace of N cannot satisfy the ECP, it fails to participate in c-command.)

*But with the advent of multiple projections, this question really does not arise: DP GenP NumP NP
Each of these projections are categories, which do undergo DP internal movement.*

Specifying that Y must be a category also predicts there can be no exorporation.

\[
\begin{array}{ccc}
X & P & X \\
\end{array}
\]

(7) Is there a different solution? Yes. Examine the configuration below again:

\[
\begin{array}{ccc}
XP & YP & YX'/XP \\
y & X & \\
\end{array}
\]

This configuration is expected to be impossible; but maybe this is what we want. There is a way to allow for the configuration above, which consists not of removing the X'/XP from the set of c-commanders, but rather by forcing one of the elements be covert. (+ assume that LCA does not apply to covert elements, but only to overt elements, as Chomsky, chapter 4).

(8) This predicts (overt is boldfaced, covert is italics)

<table>
<thead>
<tr>
<th>a. *</th>
<th>XP</th>
<th>b. XP</th>
</tr>
</thead>
<tbody>
<tr>
<td>YP</td>
<td>X'/XP</td>
<td>YP</td>
</tr>
<tr>
<td>overt</td>
<td>X</td>
<td>overt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>overt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. *</th>
<th>XP</th>
<th>d. XP</th>
</tr>
</thead>
<tbody>
<tr>
<td>YP</td>
<td>X'/XP</td>
<td>YP</td>
</tr>
<tr>
<td>covert</td>
<td>X</td>
<td>covert</td>
</tr>
<tr>
<td></td>
<td></td>
<td>covert</td>
</tr>
</tbody>
</table>

a. No projections can have terminal elements in Spec and in the head (this is the generally filled COMP filter; used in Koopman, 1991 for the structure of pronouns, in Sportiche (1993) (double Voice filter) for clitic constructions).

b. Projections can have a lexical item in Spec (Spec marking languages)

c. Projections can have a lexical item in the head position (head marking languages)

d. Projections can have covert Spec and covert head.

Discuss problems with (8a), show the work (8b), and (8c) do.

If time permits, address (8d); should be permitted for traces, but not for empty heads of chains (this would force particular analyses that I think are correct; for example, English main clauses:

Or languages with no overt Ds:

[XP [ [e] ] ...

(9) V first (yes no questions), with V to C movement (main clauses or if/whether)

a. [Qp [ oVf ] ... (did John leave)

b. [ [if [ [whether [e]][

(10) Problems with (8a): where the doubly filled C filter doesn’t seem to hold. Phrasal element in Spec position, V cannot be sitting in the head position of this projection. :

Verb second: (must be more structure)

XP [ Y [ Spec [Vf
Jan komt ...

XP [ WH [ Q [ C [ ..
wie of dat ...

I don’t think that this is a problem, just as there was the need for split I, there is need for split C as well. (Bhatt and Yoon (1992), Sportiche, 1993, Rizzi (in progress))

General solution for this class of problems: assume more structure; Support this structure with both language internal and crosslinguistic evidence.

(11) Traditional description:

French finite verbs: DP sitting in Spec of the projection containing the finite verb; Wrong generalization.

(Sportiche, 1993, Kayne 1995 no multiple adjuncts)
Jean le lui a donné
Jean e [ le [ lui e[ e [ a

(12) Cases where certain lexical items can be null, but coveryness depends on configuration:

(13) negation: (coveryness of head)

Italian:
[Neg XP [Neg e [ ..
overt zero
Germanic weak pronouns (covertness of head (D) (Koopman, 1993)

\[
\text{[NegP XP } \quad \text{[Neg e [ ..
}\]
covert non

\[
\text{[DP [NumP [pronoun] [[ D e] [ ..
}\]
[ NumP pronoun [Agr [ ....
\]

VSO languages:

\[
C
\quad \text{overt Neg overt }
\quad \text{pro Agr V-T-Agr DP}
\quad T
\]

For those heads that are overt with the initial order of heads corresponding to the hierarchical order, nothing can go in their spec positions, except covert elements (like pro). The lexical subject can be in Spec, TP because T is covert (has incorporated into Agr). (The analysis would also be consistent with the lexical subject being slightly lower, but outside VP. the lexical subject disappears in VP/TP deletion contexts.

pro triggers full agreement
lexical DPs do not

head marking language:
pro
Agr

Since Agr is overt, Spec, Agr can only contain a silent element, hence asymmetry of the distribution. (they cannot be in Spec, Agr;(cf. no move F here to give you overt agreement)

Bantu verbal complex

SA-T - OA-V-...-
No right adjunction: must be overt syntactic heads, sitting in head position:

\[
\text{SA } \quad \text{T } \quad \text{OA } \quad \text{V}
\]

Since SA is overt, Spec can only host pro (Kinyalolo, 1991)
If OA is overt, Spec, OA can only host a covert element (pro)
No XPs can be found within the verbal complex; some heads can show up within the
verbal complex (negation), depending on aspect tense.
If heads are overt (aglutinative) : DPs not in Spec positions, but in traditionally called
adjunct positions.

(20) Topic drop:
[pro ] weet [ ik niet
Know I not

*ik weet pro niet (rule out other deriv. *pro e ik e weet t niet (violates 8d)
I know not

(21) a. [ pro [Vf
b. [die [e [ Vf

(22) Pro-drop (structure dependent):
[pro X (X= SA (Bantu languages), Vf Italian, V (asp) in Chinese..)
(question if this is the whole story for pro-dop; Suppose it is: pro must be identified through
Spec head agreement )

(23) OV languages
XP YP ZP V

V is in head position --> there can be no overt elements in its Spec, so whatever was there must
have moved on, cannot have moved to something with an overt head, etc. Certain tension in the
system; but that might be desirable.

Language change:

Some speculative remarks (all variations on the same theme: pied-piping)
1. What exactly is the difference between old English/Middle English and Modern English?
Kayne’s proposals:

(24) John gave [[to Bill, [X all his books [ Y [ [e],

“the idea is to think of English sentences like (11) as instances of scrambling of the sort found
robustly in languages like German”

(25) John .. [[to Bill, [X all his books [ Y [ [e], V

If Old English was more like German in this respect , this would imply that modern English has not
lost V movement, but gained it. Alternatively, the relatively high position with respect to the
scrambled elements is due to pied-piping of VP (stranding the elements that have scrambled out,
as in Dutch remnant topicalization)

2. LCA and (8d). Loss of inflectional categories -- results in pied-piping to license zero heads;
(creoles massive pide-piping languages; children start out pied-piping(?))
3. Language variation with respect to high and low negation. 
Loss of high negation: pied-piping of negative complement to Spec, Neg. What pied-pipes? Maybe give a different handle on old and as yet unresolved problems (*John not leaves/John has not left).