Review from before:

(1) **Contiguity**
Given a Probe P and a Goal G, P and G must be dominated by a single $\phi$ within which G is Contiguity-prominent.

(2) **Contiguity-prominent**
$\alpha$ is Contiguity-prominent within $\phi$ if $\alpha$ is adjacent to a prosodically active edge of $\phi$.

(prosodically active= ‘the edge that gets pitch-boosted’
(Left in English, Norwegian, Japanese: Right in French, Icelandic, Georgian)

methods of creating Contiguity:

(3) **Grouping**
Given a Probe P and a Goal G, create a $\phi$ that dominates P and G.

(4) **Contiguity-adjunction**
Take a pair of prosodic nodes, and make one of them a daughter of the other.

All of these methods are only possible if they result in Contiguity without further disruption of word order. Can they be reduced to “change the existing structure as little as possible, preserving as many existing $\phi$ as you can, modulo creating Contiguity”?

We also saw that these conditions aren’t conditions on the final output; we get instances of opacity. In particular, it looks like Contiguity relations created in a given phase have to be repaired if both participants are going to undergo Spellout in the phase where the Contiguity relation was created, but that the relations are forgotten in higher phases.

Another requirement imposed by the interface with phonology:

(5) **Affix Support**
An affix must, in the syntactic representation, have material with metrical structure in the direction of affixation.

Affix Support accounts for the classic EPP:

(6) a. **There** arrived a man.  [English]
   b. Il est arrive un homme.  [French]
   c. Apareció un hombre.  [Spanish]
   d. Εστίλε ο Petros to graama  [Greek]
   PAST-send-3SG the Petros the letter
   ‘Petros sent the letter’

English and French differ for Contiguity (English is a Left-active language, French a Right-active language), but they’re the same for Affix Support: each has suffixal tense which doesn’t attach to a verb with any internal metrical structure. Spanish tense is also suffixal, but reliably preceded by stress (Oltra-Massuet and Arregi): Greek tense is a prefix, hence satisfied by the phrases that follow the verb (perhaps the subject?)

### 8. Generalizing Contiguity

(7) **Generalized Contiguity**
If $\alpha$ either Agrees with or selects $\beta$, $\alpha$ and $\beta$ must be dominated by a single prosodic node, within which $\beta$ is Contiguity-prominent.

Previous statement of Contiguity was only about Agree; this one covers selection as well.

I assume that while Agree is a relation between heads and phrases, selection is a relation between heads. The upshot of this will be that heads in a selection relation need to be adjacent at some point (because Grouping will not work for them, for reasons that we’ll see, and they need to do Contiguity-adjunction).

If we’re going to extend Contiguity to a relation between heads, we’re going to need to figure out what happens when heads can be Contiguity-prominent.

(8) $\alpha$$\phi_1$ $|\phi_2$$\omega$

In (8), as Contiguity-prominence is currently defined, $\omega$ is Contiguity-prominent within $\phi_1$, (because $\omega$ is adjacent to $\phi_1$’s prosodically active edge). If Contiguity-prominence is something like ‘prosodic prominence’, that seems like the wrong idea: prosodic prominence generally goes on the non-head when a head and a non-head are sisters.

So, new definition of Contiguity-prominence:

(9) **Contiguity-prominent**
$\alpha$ is Contiguity-prominent within X if:
   (i) $\alpha$ has no sister that is higher than $\alpha$ on the prosodic hierarchy ($\omega < \phi < \iota$), and
   (ii) $\alpha$ is not linearly separated from a prosodically active edge of X.

changes:
- added (i) to make it harder for $\omega$ to be Contiguity-prominent;
- it has to avoid having a $\phi$ sister;
- previous definition was only about Contiguity-prominence ‘within $\phi$’, but now you can be Contiguity-prominent within anything.
- changed ‘adjacent to’ to ‘not linearly separated from’, in order to allow for instances of X with no prosodically active edge.
These changes (almost) guarantee that Selectional Contiguity will have to be created by Contiguity-adjunction rather than by Grouping—and therefore that Selectional Contiguity will involve adjacency.

Consider a tree in which X selects Y:

(10) a. XP b. a'. φ XP
    X               YP
    Y               ωX
    ZP              ωY

Regardless of which edge of φ is prosodically active in this language, X and Y aren’t Contiguous in (10): each has a φ sister, so neither can be Contiguity-prominent in anything.

What we need is a structure like the one in (11), in which X is Contiguity-adjointed to Y:

(11) XP ωY ωX φ ZP

X and Y are both Contiguity-prominent within ωY. Since ωY has no prosodically active edges (only φ has prosodically active edges), neither is ‘linearly separated from a prosodically active edge of ωY’). And neither has a φ sister within ωY. So Contiguity holds between X and Y in this example (in fact, X is Contiguous with Y, and Y is Contiguous with X).

So the consequence of the definition of Contiguity-prominence, altered to make specific predictions about ω, is that Contiguity relations between instances of ω can’t be created if any φ intervenes between the instances of ω.

In other words, heads in a selection relation have to be adjacent—or, rather, they have to become adjacent at some point in the derivation (we’ve already seen that Contiguity relations don’t need to survive to the end of the derivation).

This will turn out to be useful in accounting for:

• the Final-over-Final Constraint of Biberauer, Holmberg, and Roberts (2010)
• Potsdam's (2009) generalization: verb-initial languages never have obligatory wh-in-situ
• Trask's (1979) observation (and see Mahajan (1994)): ergative languages, if they have a fixed word order, are verb-peripheral in TP (that is, verb-initial, or SOV)
• facts about quasitative inversion, locative inversion, and Romance participle agreement
• Haider's (2004) observation about relative clause extraposition in German
• some special properties of infinitives
• a condition on pied-piping discussed by Cable and Heck: why can VPs never pied-pipe?

All of these will involve relations between heads in the clausal spine. It will be important that you avoid thinking about selection of DPs...until we get to the end of this handout.

1. The Final-over-Final Constraint (Biberauer, Holmberg and Roberts 2010)

Final-over-Final Constraint (FOFC)
If α is a head-initial phrase and β is a phrase immediately dominating α, then β must be head-initial. If α is a head-final phrase and β is a phrase immediately dominating α, then β can be either head-initial or head-final.

(12) a. XP b. XP
    X               YP
    Y               ZP

c. XP d. * XP
    YP               X
    Y               ZP
Case #1: Germanic

(13) a. ... that John has read the book [English: Aux V O]
   b. ... da Jan wilt een huis kopen
      that Jan wants a house to buy
      '...that Jan wants to buy a house'
   c. ... dass Johann das Buch gelesen hat
      that Johann the book read has
      '...that Johann has read the book'
   d. **UNATTESTED**: V O Aux
(14) e. ... dat Jan het boek wil lezen
      that Jan the book wants to read
      '...that Jan wants to read the book'
(15) f. ...hat amig mon atellan marge einnehone demm
      [Old English: V Aux O]
      that any man relate can all the misery
      '...that any man can relate all the misery'

(e and f will have to involve movement operations… maybe object shift in e, "object extraposition" in f)

Case #2: Finnish (Holmberg 2000)

Finnish is typically Aux-V-O, but if matrix C is [+focus] or [+wh] (!), you get more freedom:

(16) a. Milloin Jussi olisi kirjoittanut romaanin?
      'When would Jussi have written a novel?'
      [Aux V O]
   b. Milloin Jussi olisi romaanin kirjoittanut?
      'When would Jussi have written a novel?'
      [Aux O V]
   c. Milloin Jussi romaanin kirjoittanut olisi?
      'When Jussi written a novel would have'
      [O V Aux]
(17) d. *Milloin Jussi kirjoittanut romaanin olisi?
      [V O Aux]

(fact that this shows up only if matrix C is [+focus] or [+wh] is really interesting. Holmberg shows that you can get the word order freedom in embedded clauses…triggered by matrix C)

Case #3: Basque (Haddican 2004, 116)

Negation triggers Aux-fronting:

(18) a. Jon-ek ez dio esan-Ø Miren-i egia
      [Aux V O]
      Jon-ERG not AUX say-ASP Miren-DAT truth
      'Jon has not told Miren the truth'
   b. Jon-ek ez dio Miren-i egia esan-Ø
      Jon-ERG not AUX Miren-DAT truth say-ASP
      'Jon has not told Miren the truth'
   c. Jon-ek Miren-i egia esan-Ø dio
      Jon-ERG Miren-DAT truth say-ASP AUX
      'Jon has told Miren the truth'
(19) d. *Jon-ek esan-Ø Miren-i egia dio
      Jon-ERG say-ASP Miren-DAT truth AUX
      'Jon has told Miren the truth'

Case #4: Finnish again

Finnish has both prepositions and postpositions:

(20) a. kohti kuvaava
      towards picture
   b. kuvaava kohti
      picture towards
      'towards the picture'

And nominal complements can be either prenominal or postnominal (with a difference in case):

(21) a. kuvaava Stalinista
      picture Stalin-ABL
   b. Stalinin kuvaava
      Stalin-GEN picture
      'a picture of Stalin'
(22) But we only get three of the four imaginable combinations:

(23) a. kohti kuvaava Stalinista
      [P N Compl]
   b. kohti Stalinin kuvaava
      [P Compl N]
   c. Stalinin kuvaava kohti
      [Compl N P]
   d. *kuvaava Stalinista kohti
      [N Compl P]
      'towards the picture of Stalin'
Let us assume, with Biberauer, Holmberg, and Roberts (2010), that Kayne (1994) is right, and that final heads are the result of an operation applying to a head-initial structure. I'll call the operation "Rotation". (we saw before that 'rotation' can be broken down into 'untethering' and 'tethering', but that won't be important today, so I'll go back to calling the whole thing 'rotation').

Rather than doing "Rotation" by movement, I'll follow López (2009) in assuming that Kayne's LCA is the default way of mapping c-command onto precedence relations, but that it can be overridden under various circumstances; part of our job will be to understand the circumstances.

Mechanically, the idea will be that Rotation involves taking a pair of sisters X and Y, and deleting all the ordering statements referring to X, and adding a new ordering statement <Y, X>. If X isn't Rotated, then it obeys the LCA.

Now consider a derivation:

(19) a.  
```
    D
  it        < V
  read
```

Somewhere down at the bottom of the tree is a place where two heads are Merged. At this point in the derivation, their order isn't fixed; we can fix it by choosing a head to Rotate. Let's Rotate the V.

b.  
```
    she
  v
  P
  D
  it        < V
  read
```

v is Merged, along with its thematic specifier. Now v and V have to be made Selectionally Contiguous.

c.  
```
    she
  v
  P
    D
  it        < V
  read
```

Here v has Rotated, creating Contiguity between v and V. There are various ways to create Contiguity (another would have been to move V to v) but this is one.

One obvious question is how languages decide whether to Rotate or not. Let me put that question aside for now, and let's go on.

Now consider, more abstractly, how a derivation like the one above might proceed, once it's been determined that V and v are head-final.

(20) a.  
```
    X
  v
  P
  she
  D
  it        < V
  read
```

A new head X is Merged. Selectional Contiguity between X and v could be created in a number of ways, including...

b.  
```
    v
  X
  she
  D
  it        < V
  read
```

…head-movement of v into X, if X is an affix, or…

b'.  
```
    v
  X
  she
  D
  it        < V
  read
```

…Rotating X

So if the lower heads are final, the new head X can be either initial (as in (20b)) or final (as in (20b')).
Let's consider a different derivation, one in which the lower heads are initial:

\[(21)\]

a. \(vP\)

\[\begin{array}{c}
\text{D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

\(V\) and \(v\) have become Contiguous via head-movement.

b. \(X\)

\[\begin{array}{c}
\text{D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

\(X\) is Merged, and needs to become Contiguous with \(v\).
There are several options, including…

c. \(V\rightarrow X\)

\[\begin{array}{c}
\text{D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

Head-movement of the verb to \(X\), if \(X\) is an affix.

c'. \(X\)

\[\begin{array}{c}
\text{D} \quad \text{NP} \\
\text{ein} \\
\text{Buch}
\end{array}\]

Waiting for \(D\) to move into some higher specifier position (maybe the specifier of \(X\), if \(X\) has the right properties)

c''.

\[\begin{array}{c}
\text{X} \\
\text{<D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

Maybe Rotating \(D\)?

\[\begin{array}{c}
\text{X} \\
\text{<D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

\(c^{***}\)

\[\begin{array}{c}
\text{X} \\
\text{<D} \\
\text{she} \\
\text{read} \\
\text{it}
\end{array}\]

\(\ldots\) but here's something there's no point in doing: Rotating \(X\). Doesn't create Contiguity between \(X\) and \(v\); in fact, it'll make Contiguity harder to create, if anything.

\(\Rightarrow\) if the lower heads are initial, the higher head will be initial (21c, c', c''), not final (21c''). This is the Final-over-Final Constraint.

We've seen that being head-final is an excellent way to create Selectional Contiguity. So why are languages ever head-initial? Excellent question…

Now, in what domain does FOFC hold?

Biberauer et al: not the whole utterance:

\[(22)\]

a. \(\text{Er hat [ein Buch] gekauft} \quad \text{[German]}

he has a book bought

b. \(\text{VP gekauft} \quad \text{D}

\text{ein} \quad \text{Buch}

head-initial \(D\) dominated by head-final \(V\): DP and VP are separate FOFC-evaluation domains.
Similarly:

\[(23)\]   
\[\begin{array}{c}
\text{a. Sie ist [ nach Berlin] gegangen [German]} \\
\text{she is to Berlin gone}
\end{array}\]

\[\begin{array}{c}
\text{b. VP} \\
\text{PP} \\
\text{PP nach Berlin}
\end{array}\]

PP and VP are also separate FOFC-evaluation domains.

Biberauer et al suggest that the domains are extended projections of lexical heads (N vs. V, in this case). An alternative: the relevant domains are Spellout domains.

\[(24)\]   
\[\begin{array}{c}
\text{CP} \\
\text{that} \\
\text{DP}
\end{array}\]

C and T aren't Contiguous...but C is a phase head. After TP undergoes Spellout, its internal structure becomes inaccessible to the narrow syntax:

\[(25)\]   
\[\begin{array}{c}
\text{CP} \\
\text{that} \\
\text{TP John has left}
\end{array}\]

This leads us to expect that C will not have to interact with T for FOFC—although, if selected, it will interact with its selector. Two reasons to believe that:

First, it's common for head-initial languages to have head-final complementizers, violating FOFC:

\[(26)\]   
\[\begin{array}{c}
\text{Ta hai shuo zhongwen ma?} \\
\text{he can speak Chinese Q}
\end{array}\]

'Can he speak Chinese?'

Second, in V-final languages, the position of embedded clauses is determined by the need for V-C Contiguity:

\[(27)\]   
\[\begin{array}{c}
\text{a. Danji-wa [ otoosan-ga kura to] kiita} \\
\text{boy-TOP father-NOM come C heard}
\end{array}\]

'[The boy heard that his father will come]'

\[\begin{array}{c}
\text{b. Der Junge hat gehört, [dass sein Vater kommen wird]} \\
\text{the boy has heard C his father come will}
\end{array}\]

'[The boy heard that his father will come]'

\[\begin{array}{c}
\text{c. Chele-Ta Sune-che [je or baba aS-be]} \\
\text{boy-CLASS hear-3SG.PAST C his father come-will}
\end{array}\]

'[The boy heard that his father will come]'

\[\begin{array}{c}
\text{d. Chele-Ta [ or baba aS-be bole] Sune-che} \\
\text{boy-CLASS his father come-will C hear-3SG.PAST}
\end{array}\]

'[The boy heard that his father will come]'

…that is, the embedded clause extrapoates to the right just if its complementizer is initial (27b-c).

What about the V\textsubscript{P} phase? Should we be able to get FOFC violations with initial V and final v, auxiliaries, etc?

provisional answer: it happens to be the case in all the languages we've looked at that v is an affix, which requires V to move to itself:

\[(28)\]   
\[\begin{array}{c}
\text{vP} \\
\text{DP} \\
\text{V-\textsubscript{v} V P DP}
\end{array}\]

The structure in (25) then obeys Selectional Contiguity, as long as we understand Contiguity as only actually applying to phase spellouts. It'll be important later that the narrow syntax attempts to construct Contiguity relations that will later be broken by Spellout—but failure to do this doesn't result in a bad structure. Spellout is then effectively a way of obeying (more precisely, avoiding the effects of) Selectional Contiguity, which is only available for phase heads.
Consequently, V will be evaluated for FOFC with v and the material in the higher phase. Leaves open the possibility that there could be a language with free-standing v…

### 1.5. Selectional Contiguity, the FOFC, and pied-piping

Let's see how to use Selectional Contiguity to derive Cable's QP-Intervention Condition:

**Cable's observation:**

QP disrupts selection by functional heads (QP-Intervention Condition)

(29) a. CP

QP intervenes between V and PP—but V is lexical, so the QP-Intervention Condition is satisfied. [to whom] can undergo wh-movement.

b. *CP

QP intervenes between v and VP—and v is functional, so the QP-Intervention Condition is violated. [talk to whom] cannot undergo wh-movement.

Note that this proposal is problematic for currently popular views of the structure of the extended VP: in particular, there can't actually be a vP, or it can't be functional (since if it were, Cable's QP-Intervention Condition would block wh-movement of subjects).

In principle, Selectional Contiguity would lead us to expect that QP couldn't dominate any selected phrase; it would always block Contiguity.

One exception; QP should be able to dominate Spellout domains. Recall from the FOFC discussion that these are the domains where FOFC 'resets':

(30) a. Er hat [ein Buch] gekauft [German]

he has a book bought

b. VP

gekauft

ein Buch
(31) a. Sie ist [nach Berlin] gefahren [German]
    she is to Berlin driven

    b. VP
        PP V
        gefahren
        nach Berlin

V is separated from D and P by a Spellout boundary, giving V another way of satisfying Selectional Contiguity with its complement (by converting the structure into one to which Selectional Contiguity doesn't apply).

→ we should be able to insert QP above these spellout domains:

(32) a. Er hat [welches Buch] gekauft [German]
    he has which book bought

    b. VP
        KP V
        gekauft
        welches Buch

(33) a. Sie ist [nach welcher Stadt] gefahren [German]
    she is to which city driven

    b. VP
        QP V
        gefahren
        nach welcher Stadt

(technical note: what's the phase head? we may have to invent one: we need DP and PP to be spellout domains, so unless V is always a phase head, there may have to be a pP above PP, for example).

conclusion: spellout domains (DP, PP…) and adjuncts can be dominated by QP.
Cable’s QP-Intervention Condition: vP can’t be a wh-phrase.

2. V1 and wh-movement


(34) If a language has dominant verb-initial (V1) word order in declarative sentences, it can put interrogative phrases first (Wh1) in interrogative questions.

…that is, V1 languages always have either obligatory or optional overt wh-movement.

Greenberg had claimed that wh-movement in these languages is always obligatory; falsified by, among others, Malagasy (Paul and Potsdam 2012) and Niuean (Massam 2010):

(35) a. Nividy inona i Be? [Malagasy]
    bought what Be
    "What did Be buy?"

    b. Iza no nividy ny vary?
       who PRT buy the rice
       "Who bought the rice?"

(36) a. Figita e Moka a hai? [Niuean]
    kiss ERG Moka ABS who
    "Who did Moka kiss?"

    b. Ko hai ne figita e Moka?
       PRED who PRT kiss ERG Moka
       "Who did Moka kiss?"

In the typology of wh-questions that we’ve developed, (34) can be restated as (37):

(37) If a language has dominant verb-initial (V1) word order in declarative sentences, its interrogative complementizers are head-initial.

(recall that languages with initial interrogative complementizers will always have wh-movement at least as an option).
In other words, Rotation of C is possible in (38a), but not in (38b):

(38)  

In (38a), by hypothesis, Selectional Contiguity between C and T is eventually made unnecessary by Spellout of TP (this was the proposal about languages like Chinese). In (38b), by contrast, C and T can be made Contiguous as soon as C is Merged, by creating a prosodic tree like the one in (39):

(39)

If Rotation (Untethering and Retethering) is an operation that applies to the prosodic tree, then rotation of the newly Merged head won’t make C final; it’ll just alter the order of C and T.

3. Ergativity and word order

Selectional Contiguity might be part of an explanation for why a language like English would bother to raise the subject to the specifier of TP:

(40)

Raising Mary to the specifier of TP creates Contiguity between T and v.

(Contiguity between C and T is created after Spellout)

How would a language behave if it didn't raise the subject?

(41)

Such a language would have to satisfy Contiguity in some other way, either by making all the heads final or by moving the verb up to T:

(42)

So such a language would have to be SOV or VSO; it couldn't, for example, be Aux SVO, as in (41).

Interestingly, ergative languages, if they have a fixed word order, are almost invariably verb-peripheral (Trask 1979, Mahajan 1994…)

(43)

WALS data (Dryer and Haspelmath 2013) on correlations between basic word order and ergativity either in agreement patterns or in case marking of full nominals or pronouns:

This assumes that lowering of affixes either (i) cannot satisfy Contiguity (perhaps because it is postsyntactic) or (ii) is blocked by the intervening subject.
4. Quotative inversion and locative inversion

    b. **"Hi," has John said.  
    c. **"Hi," has said John.

(47) a. [Into the room] walked a pirate.  
    b. * [Into the room] has a pirate walked.  
    c. [Into the room] has walked a pirate.

• (b) examples violate Selectional Contiguity: subject intervenes between aux and verb
• contrast in (c) could be related to another contrast:

(48) a. In this room were assigned to him [several important cases].  
    b. ?? In this room were assigned [several important cases] to him.

→ locative inversion requires the inverted subject to be on the right periphery (Pesetsky 1994)

(49) a. *"Hi," said to him [an important lawyer]  
    b. "Hi," said [an important lawyer] to him

→ quotative inversion doesn't.

So locative inversion, but not quotative inversion, involves some kind of rightward shift of the subject (maybe related to "presentational focus"). This rescues (47c), but isn't available for (46c).

one conclusion: violations of Selectional Contiguity cannot trigger movement of (this kind of) offending intervener. Movement of the intervener (at least, the DP intervener) must take place through independently available means. Movement isn’t ‘altruistic’.

5. Haider’s (2004) observation

relative clause extraposition in German to a position just after the verb is impossible in (50a), but possible in (50b):

(50) a. * …daß er jenen etwas gegeben [die ihn durum gebeten haben] hat
       that he those something given who him for it asked have has …that he gave something to those who asked him for it!
    b. jenen etwas gegeben [die ihn durum gebeten haben] hat er noch nie those something given who him for it asked have has he yet never ‘He has never yet given something to those who asked him for it’

Consider the derivation of (50b)…

(51)

As long as these movements happen one at a time, there'll be a point in the derivation at which Selectional Contiguity (between hat 'has' and the next lower head) is broken.

…and apparently breaking Selectional Contiguity makes extraposition possible.
6. Infinitives

starting point: infinitives are TPs that are selected by non-phase-heads:

(52) a. CP
    b. VP

For control infinitives, I'll posit a non-phasal C selecting infinitival TP.

(52a): C is a phase head, which eventually saves T from needing to be Contiguous with it.
(52b): V is not a phase head; Contiguity between V and T is blocked by John.

Various ways of fixing the problem in (52b):

(53) a. Mary was wagered __ to have won the race
    b. Mary, who John wagered __ to have won the race…
    c. *John wagered Mary to have won the race
    d. John believes Mary to have won the race
    e. Mary seems __ to have won the race
    f. Mary decided PRO to win the race

What determines the distribution of these methods? (53b) is an outlier in current approaches.

(54) *Who did it seem [__ to like chocolate]?
(55) Who __ seemed [__ to like chocolate]?

Why is (55) preferred to (54)? Maybe because you have to fix Contiguity problems as quickly as possible; preferable to use T to move who out of the way, rather than waiting for C to do so.

So why is (53b) okay? Related to the * on (53c); you can't do the shorter move involved in ECM, so you can settle for the longer wh-movement.

Why is (53c) bad? Important observation by Pesetsky (1992): wager-class verbs are agentive, ECM verbs non-agentive.

(56) a. Sue ultimately understood Bill to have died
    b. ??No, you can't talk to Bill. Try to understand him to have died.
    c. No, you can't talk to Bill. Try to understand that he has died.

So one possibility is that ECM involves moving into the position occupied by agents—which is filled when there actually is an agent.

Another way to fix Contiguity between T and the higher head: fail to pronounce the subject (possibly: fail to send the subject to the interfaces at all?):

(57) Mary decided PRO to win the race

'conversion' of DP to PRO: has to be motivated (so you can't have PRO everywhere)

why not fix the problem with A-bar extraction? Maybe we can rely on semantics: decide needs a complement with a referentially dependent subject.

postverbal subjects shouldn't have to be PRO: Szabolcsi (2009)

(58) a. Gianni è arrivato
    b. È arrivato Gianni

(59) Solo lui non vuole andare a Milano [Italian: Szabolcsi 2009, 25]
    only he not wants go-INF to Milan

(60) Non vuole andare solo lui a Milano [Italian: Szabolcsi 2009, 26]
    not wants only he go-INF to Milan

(61) *Non vuole solo lui andare a Milano (cannot mean (60); okay meaning (59))

(62) *Gianni non vuole andare solo io a Milano
    Gianni not wants go-INF only I to Milan

    [Maria Giavazzi, p.c.]

(evidence for the existence of requirements like 'this infinitival has to have a referentially dependent subject', independent of PRO)

and what about head-final languages? well, a bunch of these do have funny control phenomena…
7. Interim Conclusions

(63) Isya-ga [kanzya-ga aruk-u-no]-o tetudatta
   'The doctor helped the patient to walk’ [Japanese: Fujii 2006]
   doctor-NOM patient-NOM walk-PRES-ACC helped

(64) Chelswu-ka [Yenghi-ka kakey-ey ka-tolok] selutka-ess-ta
   Chelswu-NOM Yenghi-NOM store-LOC go-PAST-DECL
   'Chelswu persuaded Yenghi to go to the store’ [Korean: Monahan 2003, 356]

(65) [Kid-ba Corpa b-od-a] γoqsi
   girl-ERG soup.III.ABS III-make-INF II-began
   'The girl began to make soup’ [Tsez: Polinsky and Potsdam 2006, 177]

8. DPs!

So far we have been ignoring DPs. For good reason:

(67) vP
    the King of France v
    invented Rogaine

Not clear that v ever manages to be adjacent to anything relevant in its DP specifier.

On the other hand, we do find examples of nominals that have to be adjacent to verbs, just when they are missing some functional structure. Proposal, basically that of Clemens (2014): these are instances of Selectional Contiguity, applied to the relation between a nominal and its theta-assigner—and the effects of Selectional Contiguity are usually masked by Spellout (cf. the earlier discussion of the relation between C and T)

(68) V selects, maybe, N—but K and D intervene.
    K is a phase head, so if N and V never become adjacent, Selectional Contiguity will become irrelevant after Spellout. On the other hand, if there’s no K…

(69) a. Takafaga tāmau ni e ia e tau ika [Niuean: Seiter 1980]
    hunt always EMPH ERG he ABS PL. fish
    ‘He is always hunting fish’

b. Takafaga ika tāmau ni a ia
    fish always EMPH ABS he
    ‘He is always hunting fish’

Sometimes useful to talk about “Selectional Contiguity” and “Probe-Goal Contiguity”—the hope is that these are two aspects of a general requirement of Generalized Contiguity, applied to selection and to Agree.

Now, on to DPs!

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Some possible examples of K being missing:

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The grammar seeks to build Contiguity relations between heads that are eventually separated by a Spellout boundary (Potsdam’s generalization), but if it fails to do so the result isn’t bad (English tensed clauses).

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Now, on to DPs!
(70) a. Masha salamaat-*t(y) türönggik sie-te [Sakha: Baker 2014]
Masha porridge-ACC quickly eat-PST.3SG
‘Masha ate the porridge quickly’

b. Masha türönggik salamaat-(*t(y)) sie-te
Masha quickly porridge eat-PST.3SG
‘Masha ate porridge quickly’

(71) a. (egészen) az épület-en (egészen) kívül [Hungarian: Dékány 2011]
wholly the building-SUP wholly outside
‘totally outside the building’

b. (egészen) a tükör (*egészen) mellett
wholly the mirror wholly next.to
‘right next to the mirror’

(72) a. Cicing ke jalan-e ng-uber siap-e [Balinese: Levin 2015]
dog into street-DEF sv-chase chicken-DEF
‘A dog chased the chicken into the street’

b. Siap-e uber cicing ke jalan-e
chicken-DEF OV.chase dog into street-DEF
‘A dog chased the chicken into the street’

(73) a. (üyũ) mãndũ (*üyũ) ne-a-růg-ir-e. [Kikuyu: Branan 2015]
1.DEF 1.man 1.DEF FOC-1SGJUMP-ASP-FV
‘This man jumped’

Mwangi FOC-1SGJUMP-ASP-FV 1.DEF 1.man
‘Mwangi saw this man’

Levin (2015): in a number of cases, these adjacency requirements involve linear adjacency
between a verb and some nominal-internal head:

(74) a. Na’e tō ‘e Sione ‘ene (kľ’i) manioke (kľ’i) [Tongan: Ball 2004]
PST plant ERG Sione his small cassava small
‘Sione planted his small amount of cassava’

b. Na’e tō (*kľ’i) manioke (kľ’i) ‘a Sione
PST plant small cassava small ABS Sione
‘Sione planted a small amount of cassava’

(75) a. (Liu) cicing (liu) ngugut Nyoman [Balinese]
many dog many AV.bite Nyoman
‘Many dogs bit Nyoman’

b. Cicing-e ngugut (liu) anak cerik (liu)
dog-DEF AV.bite many person small many
‘The dog bit many children’

c. (Liu) anak cerik (liu) gugut cicing
many person small many OV.bite dog
‘A dog bit many children’

d. Nyoman gugut (*liu) cicing (liu)
Nyoman OV.bite many dog many
‘Many dogs bit Nyoman’

So the generalization isn’t just “the verb and the subject must be adjacent in OV”—it’s
something like “the verb must be adjacent to the head N of the subject in OV”.

…or to the D?

(76) a. I Wayan gugut cicing/*cicing-e (ento)
ART Wayan OV.bite dog dog-DEF (that)
‘A/*that dog bit Wayan’

b. Be-e daar ida
fish-DEF OV.eat 3
‘S/he ate the fish’

c. Be-e daar Nyoman
fish-DEF OV.eat Nyoman
‘Nyoman ate the fish’

(76a): most nominals can’t have (postnominal) D if they’re subjects of OV verbs. Crucially, the
generalization isn’t that subjects of OV verbs have to be indefinite: (76b-c). Levin’s take: the
verb has to be adjacent to ‘the highest overt nominal head’, when there’s no K. If there’s a D,
that’s D; if D is null, it’s N. In the starred version of (76a), N intervenes linearly between V and
(overt) D.

Clemens (2014) offers a prosodic account of the Niuean facts, which I’ll basically adopt. Her
proposal is that a condition not unlike Selectional Contiguity (she calls it ARGUMENT-φ) requires
heads to be adjacent to the phrases they select, and phrased with them:

(77) ARGUMENT-φ: A head and its internal argument(s) must be adjacent sub-constituents of a
φ-phrase. [Clemens 2014, 130]
She does instrumental work to show that in Niuean, when the object is caseless and adjacent to the verb, it’s phrased together with the verb. Niuean φ is marked by a H* - tune at the right edge.

(78)

VSO order: note the H* on both the verb and the subject, and maybe also the object

(79)

(VOS order with Caseless object: verb and the object are phrased together, so there’s no H* on the verb, only on the object).

(Why is the verb a φ by itself in (78)? Clemens invokes STRONG START, which bans phrases that have multiple daughters in which the first is lower on the prosodic hierarchy than later ones. Various possible repairs, but Clemens suggests that Niuean chooses to beef the verb up into a φ).

Clemens posits a PF movement of the object in (79) in order to phrase the object together with the verb, obeying ARGUMENT-φ. I’ll do the same, except that the movement for me could be narrow-syntactic, and I’ll invoke Selectional Contiguity. Why doesn’t ARGUMENT-φ/Selectional Contiguity apply to the object in (78)? Clemens proposes, and I agree, that it’s because KP is a phase; the rest of the nominal is protected from the need to be adjacent to the verb by phase spellout.

9. Possible conclusions

It looks like we do not need to avoid thinking about DPs. Selectional Contiguity can hold between every pair of heads in a selection relation, including (for example) the V and, say, N, or maybe D. Spellout will often mean that nominals get to avoid Selectional Contiguity with their selectors, but Caseless nominals will show the expected adjacency requirements, just like the heads in the verbal spine.

A more worrying problem:

(80) Mary seems [to John] [to be smart]

seem, or some pair of heads in the vicinity of seem, apparently selects both the experiencer and the infinitive—and we know we don’t want the infinitive to be sent off in a separate spellout domain, both because we don’t believe that raising infinitives are phases and because it’s crucial for Branan’s account of the conditions on raising across experiencers that the matrix T and the embedded T (and the raising DP) are in the same phase. So we need some other trick to make (80) possible...

References


Biberauer, Theresa, Anders Holmberg, and Ian Roberts. 2010. A syntactic universal and its consequences. m.s., University of Cambridge, Stellenbosch University, and Newcastle University.


