Infinitival Complements (LGB treatment, but with CP/IP instead of $\bar{S}/S$)

a. Throughout, we will assume that infinitival Infl is not a governor, and null C is also not a governor. The former is explicit in LGB; the latter is not, but Chomsky must have been assuming it.

b. Throughout, we will be assuming the PRO requirement (that PRO must not be governed; shortly, we will see the LGB deduction of this from other principles, making it a theorem) and (a version of) the ECP - trace must be governed.

c. Throughout, we will be assuming that all XPs except IP are barriers to government.

d. Throughout, we will be assuming that finite complements are always CPs, with that complementizer or null complementizer.

e. Throughout, we will assume that an idiom must be a DS unit.

I. We have seen 2 kinds of adjectives that are one-place predicates whose one argument is a clause; one kind takes a CP argument [__ CP], the other an IP [__ IP].

(1) It is important [CP [IP PRO to solve this problem]]
    (“PRO Theorem” The CP boundary protects PRO from being governed)

(2) *Howard is important [CP [IP t to solve this problem]]
    (ECP The CP boundary prevents t from being governed by important)

(3) *It is unlikely [IP PRO to solve this problem]
    (“PRO Theorem” The IP boundary does not protect PRO from being governed by unlikely)

(4) Howard is unlikely [IP t to solve this problem]
    (ECP The IP boundary does not prevent t from being governed by unlikely)

It is interesting that CP complements of adjectives can also have the overt C for, and an overt subject (assigned Case ‘exceptionally’ by for):

(5) It is important [CP for [IP Howard to solve this problem]]

While it is conceivable that (5) could be re-analyzed as (6), with for Howard a PP, there are sentences that could not be analyzed that way (7).

(6) It is important [PP for Howard] [CP [IP PRO to solve this problem]]
(7) It is important [CP for [IP there to be an investigation]]

Pleonastics can never be objects of prepositions (likely because that is a $\theta$-position), so (7) couldn’t be re-analyzed like (6). Some other adjectives like important are unimportant, legal, illegal.
It is also interesting that IP clausal complements of adjectives have finite CP alternatives:

(8) It is unlikely \[\text{CP that} \ [\text{IP Howard will solve the problem}]\]

Some other adjectives that behave like *unlikely* are *likely* and *certain* (but, strangely, not *uncertain*).

II. There are also adjectives that are two-place predicates, with the object argument an infinitive:

(9) Mary is eager \[\text{CP} [\text{IP PRO to solve the problem}]\]

Notice that this must be ‘control’ and not ‘raising’, since *eager* is a two-place predicate. It takes a subject argument. Subject position could not have been empty at DS, so couldn’t have been a target for movement. It also immediately follows that the subject can’t be an expletive or a portion of an idiom:

(10) *There is eager to be an investigation \quad (\text{cf.}\; \checkmark \text{There is likely to be an investigation})
(11) *The cat is eager to be out of the bag \quad (\text{cf.}\; \checkmark \text{The cat is likely to be out of the bag})

Some other adjectives like *eager* are *anxious* and *happy*.

There are no two-place adjectives with IP complements. Such a complement couldn’t have a PRO subject (since the subject would be governed by the matrix adjective). Nor could the subject be ‘lexical’, since it couldn’t receive Case. Finally, obviously a DS subject couldn’t raise from there to matrix subject position, since the matrix subject must already have been filled, given that we are hypothesizing a two-place predicate.

III. There are verbs that are one-place predicates whose one argument is an infinitive:

(12) Susan seems \[\text{IP} \ t \text{ to like linguistics}]\]

Evidence for this analysis comes from the fact that the matrix subject can be an ‘idiom chunk’ or pleonastic that must have originated in the embedded clause:

(13) The cat seems \[\text{IP} \ t \text{ to be out of the bag}]\]
(14) The shit seems \[\text{IP} \ t \text{ to have hit the fan}]\]
(15) There seems \[\text{IP} \ t \text{ to be a riot in the courtyard}]\]

We know that the infinitive must be a ‘bare’ IP or the trace would fail to be governed, in violation of the ECP. Some other verbs like *seem* are *turn out* and *happen*. These verbs have alternative subcategorizations with finite complements and pleonastic subject:

(16) It seems/turns out/happens that Susan likes linguistics
PRO is predictably impossible:

(17) *It seems \[IP PRO to like linguistics\] (Meaning something like ‘It seems that someone or other likes linguistics’)

Somewhat less expected is that lexical NP cannot remain in complement subject position:

(18) *It seems \[IP Susan to like linguistics\]

Note that *seem* does govern *Susan* here, since it governs PRO in (17) and trace in (12). Thus, we are led to the conclusion that not all verbs are Case assigners. If *seem* is not, *Susan* in (18) runs afoul of the Case Filter.

There are a couple of verbs that are one-place predicates whose complements are infinitival CP. They have a pleonastic subject and take an infinitival complement with either a null C and a PRO subject, or a *for* C and an overt subject:

(19) It hurts \[CP for \[IP me to see you like this \]\]
(20) It hurts \[CP \[IP PRO to see you like this \]\]

Another verb like *hurt* is *sting*.

IV. There are verbs that are two-place predicates whose object argument is an infinitive. That infinitive might be an IP or a CP. An example of the first type is *believe*.

(21) Mary believes \[IP Susan to be a genius\]

In this configuration *believe* governs *Susan*, since IP is not a barrier to government. PRO is impossible in the embedded subject position, since it would be governed here.

(22) *Mary believes \[IP PRO to be a genius\]

Further, given the null hypothesis that a passivized verb has the same subcategorization frame as its active counterpart, we correctly predict that passive/raising is possible:

(23) Susan is believed \[IP t to be a genius\]

The trace of *Susan* will be governed by the matrix passive verb in satisfaction of the ECP. Two other verbs like *believe* are *consider* and *declare*. All of these verbs can also take a finite complement:

(24) Mary believes \[CP that \[IP Susan is a genius\]\]

*Try* is a two-place predicate taking a CP as its infinitival complement:
(25) Harriet tried [CP [IP PRO to win the race]]
(26) *Harriet tried [CP [IP Barbara to win the race]]
(27) *Barbara was tried [CP [IP t to win the race]]

The CP boundary prevents try from governing the embedded subject, thus allowing PRO, disallowing lexical NP (via the Case Filter) and disallowing trace (via the ECP). Another verb like try is attempt.

V. There are verbs that are three-place predicates whose second object is an infinitival CP.

(28) John told Charles [CP [IP PRO to attend class]]
(29) *John told Charles [CP [IP Mary to attend class]]

Note that tell is indeed a three-place predicate:

(30) John told Charles a story
(31) John told Charles [CP that [IP he should attend class]]

It follows immediately that the NP immediately following the verb cannot be a pleonastic (since, for whatever reason, objects cannot be pleonastic).

(32) *John told there to be an investigation

Some other verbs like tell are convince, advise, and remind.

VI. Finally there’s a substantial class of verbs that are two-place predicates whose object argument is an infinitival that doesn’t fit neatly into the paradigm we have developed (the one in LGB). A representative example is want. (31) suggests that the complement is a CP:

(33) Judy wants [CP [IP PRO to go home]]

<This could not be Raising, since want has a subject θ-role to assign. Further evidence is provided by the fact that an idiom chunk cannot appear in matrix subject position:

(34) The cat wants to be out of the bag (Only has the literal meaning)>

However, unlike the situation with try, we can have a lexical subject of the complement:

(35) Judy wants Harry to go home

All else equal, this might suggest that want also can take an IP complement (so that want can govern and assign Case to Harry. BUT, if the complement could be IP, trace should be possible, yet it is not, suggesting that the complement must be CP
(36)  * Harry is wanted [_{IP t} to go home]]

These conflicting properties are problematic for the LGB account of infinitivals. Some other verbs like want are like, hate, and love.