

Case and embedded clauses

1 Case review

- *Vergnaud's letter*: the distribution of nominative and accusative in Latin looks like the distribution of NPs in English, even though English doesn't have case except on pronouns.

- *The Case Filter*: Nouns need case.

– N all start with inflectional feature [uCase: ___], which must be valued via Agree.

- (1) **Agree($\alpha, \beta; F$)** (read: ' α and β agree in F')

For any syntactic objects α and β with matching feature F, where α c-commands β :

- a. let the value of F on α and the value of F on β be equal;
- b. if F is uninterpretable on α or β , check the feature (let $uF = \mathfrak{u}F$).

- T = [T, Case:NOM, $u\phi$: ___, uN*] (to be complicated today)

- There are two *v*:

- For active transitives and unergatives: [v, uN, Case:ACC]
- For passives and unaccusatives: [v]

2 Nonfinite clauses without subjects¹

At first glance, the sentences with *seem* and *try* below look like they have a similar structure:

- (2) a. Ali seems [to be happy]. *raising*
b. Ali tries [to be happy]. *control*

But notice that the subject's interpretation is different. In (2b), *Ali* is trying to do something, so that she will be in class. She is an agent of *try*. In contrast, in (2a), *Ali* isn't "seeming" in any way.

- *Raising* verbs like *seem* do not assign a theta role to their subject. *Seem* logically takes one argument, the idea or possibility that *Ali is happy*.
- *Control* verbs like *try* assign a theta role to their subject. *Ali* and *to be happy* are separate arguments of the verb *try*.

¹This section and section 4 follow notes by David Pesetsky and Jason Merchant.

Four diagnostics for raising vs control:

1. Availability of expletives and weather *it*:

- | | | | | | |
|-----|----|--|-----|----|---------------------------|
| (3) | a. | There is a book on the table. | (4) | a. | It is raining. |
| | b. | There seems to be a book on the table. | | b. | It seems to be raining. |
| | c. | * There tried to be a book on the table. | | c. | * It tried to be raining. |

2. Equivalence of actives and passives:

- (5) a. Ali has written this letter.
b. Ali seems to have written this letter. =
This letter seems to have been written by Ali.
c. Ali tried to write this letter. ≠
This letter tried to be written by Ali.

3. Idiom chunks:

- (6) Some useful English sentential idioms:
- a. The cat is out of the bag. = A secret is now known.
 - b. (The) chickens are coming home to roost. = Inevitable bad consequences are now happening.
 - c. The shit hit the fan. / All hell broke loose. = Something terrible happened.
 - d. The passive of *take advantage of*: Advantage was taken of Ali.
- (7) a. The cat seems to be out of the bag. idiom meaning ok
b. The cat tried to be out of the bag. idiom meaning *

4. *Partial control*: With control, sometimes the interpreted lower subject can be a group which includes the higher subject, but also includes others. This is not possible with raising.

- (8) Intransitive *meet* requires a plural subject:
- a. Ali and Brie met at 5pm.
 - b. * Ali met at 5pm.
- (9) a. Ali and Brie {seem/are likely/are expected} to meet at 5pm (every day).
b. Ali and Brie {want/expect/promised} to meet at 5pm (every day).
- (10) a. * Ali {seems/is likely/is expected} to meet at 5pm (every day).
b. Ali {wants/expects/promised} to meet at 5pm (every day).

2.1 The analysis of raising

- (11) It seems [_{CP} that Ali/she is an expert].
(12) * It seems [_{TP} Ali/her to be an expert].
(13) Ali/she seems [_{TP} ___ to be an expert].

What is happening here? The subject receives nominative case from the higher, finite T and moves to the higher Spec,TP to satisfy EPP.

- Nonfinite T (*to*) does not assign nominative case: $T_{\text{nonfinite}} = to = [T, uN^*]$

A subject can raise across multiple raising verbs:

- (14) Ali seems [_{TP} ___ to be likely [_{TP} ___ to win the race]].

2.2 The analysis of control

Control verbs introduce both a higher argument and a nonfinite TP with a subject missing, but this lower (unpronounced) subject is interpreted as the higher subject:

- (15) Ali promised [_{TP} to leave].
≈ Ali_i promised [that she_i would leave] (not someone else)

Idea: The subject of the embedded clause is an unpronounced pronoun, PRO (“big pro”), which must be coreferential with the higher subject (the subject ‘controls’ PRO). This allows *Ali* to receive two theta roles:

- (16) Ali_i promised [_{TP} PRO_i to leave].

The presence of the lower PRO is detected by reflexives:

- (17) Bob_i wants [_{TP} Brie_j to help *himself_i/herself_j].
(18) Bob_i wants [_{TP} PRO_i to help himself_i].

3 Finite embedded clauses (CPs)

Embedded clauses are often introduced with a *complementizer* such as *whether/if* or *that*. Call these C and their phrases CPs.

- (19) I wonder [_{CP} *whether/if* people drive on the left in Hong Kong].
(20) I know [_{CP} (*that*) people drive on the left in Hong Kong].

(21) **The Hierarchy of Projections (revised):**²

$C > T > v > V$

Notice that these CPs are *finite*: they allow for all tense/aspect distinctions available in English.

Know can take a NP or CP complement. We can use a noun like *fact* to turn the CP into NP with approximately the same meaning.

(22) I know [NP the fact [CP that people drive on the left in Hong Kong]].

NPs and CPs behave differently with respect to case: NPs need case while CPs do not. Consider the passive of *know*:

(23) a. [CP That people drive on the left in HK] is known (by many people).

b. [NP The fact [CP that people drive on the left in HK]] is known (by many people).

(24) a. It is known (by many people) [CP that people drive on the left in HK].

b. *It is known (by many people) [NP the fact [CP that people drive on the left in HK]].

4 Nonfinite clauses with subjects

4.1 *for*-infinitive complements

We also embed clauses that are *nonfinite*, which do not show tense distinctions and do not allow modals verbs. The nonfinite T, *to*, also does not assign nominative case:

(25) a. I was excited [CP that Ted/he came to Singapore].

b. *I was excited [TP Ted/he/him to come to Singapore].

(26) I was excited [for Ted/him to come to Singapore].

We know that this *for* does not form a constituent with the following subject.

Idea: *for* is a nonfinite C that takes a nonfinite TP; *for* assigns accusative case to the embedded subject.

²Do *matrix* (unembedded) clauses have C? In English, it's hard to tell: either there is no C or it is always unpronounced. In some other languages, we will see later that matrix clauses always include a CP.

4.2 Bare nonfinite TP complements: ECM

There are also verbs that take a TP without *for*:

(27) I consider (*for) [TP Sarah/her to be an expert].

(28) I proved (*for) [TP Ali/her to be guilty].

The embedded subject can also be a reflexive bound by a higher subject. This is not possible for embedded finite clauses:³

(29) Trump_i believes [TP himself_i to be an expert].

(30) * Trump_i believes [CP that himself_i is an expert].

These verbs are traditionally called *Exceptional Case Marking (ECM)* verbs. The idea is that the verb (*consider, prove, believe*) assigns accusative case to the embedded subject, and this was exceptional. As evidence that the higher verb assigns accusative, we can passivize the higher verb:

(31) Sarah/she is considered [TP ___ to be an expert].

(32) Ali/she was proven [TP ___ to be guilty].

Other ECM verbs: *believe, judge, want, expect, predict...*

4.3 Object control

There is a control counterpart to ECM: *object control*. Here the idea is that the verb (*persuade, convince*) takes two objects: a noun phrase and a nonfinite control clause. The NP object then 'controls' PRO.

(33) Ali persuaded/convincing/told/forced [Brie_i] [TP PRO_i to leave].

On the surface, ECM and object control look very similar. But our tests for subject raising vs control extend to ECM vs object control and help us distinguish them:

³Since the embedded subject seems in many ways to be an *object* of the higher verb, these verbs have also been called *raising to object*: the idea is that the embedded subject has now become an object of the higher verb.

1. Availability of expletives and weather it:

- (34) a. I believe [_{TP} it to rain tomorrow].
b. *I convinced it [_{TP} PRO to rain tomorrow].
- (35) a. I believe [_{TP} there to be a book on the table].
b. *I convinced there [_{TP} PRO to be a book on the table].

2. Equivalence of actives and passives:

- (36) a. I believe [_{TP} Brie to have written this letter]. =
I believe [_{TP} this letter to have been written by Brie].
b. I convinced Brie [_{TP} PRO to write this letter]. ≠
I convinced this letter [_{TP} PRO to have been written by Brie].

3. Idiom chunks:

- (37) a. I believe [_{TP} the cat to be out of the bag]. idiom meaning ok
b. I convinced the cat [_{TP} PRO to be out of the bag]. idiom meaning *

4. Partial control:

- (38) a. Ali convinced Brie_i [_{TP} PRO_{i+j} to meet at noon].
b. *Ali believed Brie_i [_{TP} ___ to meet at noon]