ECM and object control

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1 ECM infinitives

- * EXCEPTIONAL CASE MARKING (ECM) infinitives are infinitives that have embedded accusative subjects:
 - (1) a. Rose *believed* $[_{\text{TP}}$ **him** to be innocent].
 - b. Everyone *wanted* [TP **the baby** to sleep].
 - c. No one *expected* $[_{TP}$ her to be at the party].
 - d. Alex *allowed* [TP **him** to eat nattoo].
- ECM = Accusativus cum Infinitivo (AcI) = Subject-to-Object Raising

• The puzzle

ECM infinitives are puzzling given the following two otherwise general tendencies:

- 1. subject \leftrightarrow nominative case
- 2. object \leftrightarrow accusative case
- ⇒ As such, syntacticians first became interested in ECM infinitives because the case and the grammatical function diverge.

1.1 Analyses

* Clause size

Parallel to raising infinitives, ECM infinitives are TPs.

1 Exceptional-case analysis¹

The ECM subject is base-generated inside the embedded clause and remains there. The matrix predicate *exceptionally* assigns accusative case to the ECM subject across the nonfinite clause boundary:

(2) ...
$$\begin{bmatrix} V \begin{bmatrix} TP & Subj & V & Obj \end{bmatrix} \end{bmatrix}$$

2 Raising analysis²

The ECM subject is base-generated inside the embedded clause and A-moves into matrix object position, from where it receives accusative case locally:³

(3) ... [V [Subj [_{TP} ___ V Obj]]]
$$\stackrel{\bullet}{\underline{acc}}$$

• Logically-possible alternative

The ECM subject is base-generated in the matrix clause:

(4) ... [V [Subj [_{TP} V Obj]]]
•
$$acc$$
 •

¹ Chomsky (1981)

² Postal (1974)

³ Standardly, the ECM subject moves to a position above V, and then V undergoes movement to a higher head, e.g. v.

a. They made **Alex** *out* [to be the perpetrator]. b. I believe **Sue** [*with all my heart*] [to be innocent]. (8) a. Condition A **Alex**₁ believed [**herself**_{1/*2} to be innocent]. b. Condition B **Alex**₁ believed [$her_{*1/2}$ to be innocent]. c. Reciprocal

The DA proved [**the defendants**₁ to be guilty] during **each other's**₁ trial.

d. NPI

The CEO believed [none of the applications to be qualified] during any of the interviews.

· Nowadays, case assignment in ECM infinitives receives less attention because we have well-defined theories of case that handle ECM-and moreover, they do not necessarily require committing to a particular analysis.

a. They expected $[_{TP}$ the shit to hit the fan]. (5)b. They believed $[_{TP}$ the cat to be out of the bag].

Evidence for raising 1.2

• In Minimalist syntax, the raising analysis of Postal (1974) is widely adopted. There are two main pieces of evidence in favor of it.

1 Intervening adverb or particle

An adverb or particle may intervene between the ECM subject and the (rest of the) embedded clause:4

- (6)
- This is standardly analyzed as the matrix-object position being *above* the position of the adverb, so that when the ECM subject raises, it crosses the adverb:
 - (7) ... [V [Subj [$\mathbf{Adv} [_{\mathrm{TP}} _ V \operatorname{Obj}]]]$

9 Binding

For Binding Theory, the ECM subject behaves as if it were in the matrix clause:⁵ ⁵ Lasnik and Saito (1991)

⁴ Postal (1974)

Idioms

The ECM subject may be part of an idiom. This follows from either the exceptionalcase analysis or the raising analysis, because the ECM subject starts out in the embedded clause.

1.3 ECM verbs

• Whether a verb may embed an ECM infinitive is entirely idiosyncratic:

(9)	a. I regret [$_{CP}$ that he is no longer here].	that-CP
	b. *I regret [$_{CP}$ for him to no longer be here].	for-CP
	c. *I regret [$_{TP}$ him to no longer be here].	ECM
	d. I regret [$_{DP}$ this outcome].	DP
(10)	a. I hope $[_{CP}$ that he gets well soon $]$.	that-CP
	b. I hope $[_{CP}$ for him to get well soon $]$.	for-CP
	c. *I hope $[_{TP}$ him to get well soon $]$.	ECM
	d. I hope *(for) $[_{DP}$ a favorable outcome].	DP
(11)	a. I believe $[_{CP}$ that she is innocent $]$.	that-CP
(11)	a. I believe [_{CP} that she is innocent].b. *I believe [_{CP} for her to be innocent].	that-CP for-CP
(11)		
(11)	b. *I believe [$_{CP}$ for her to be innocent].	for-CP
(11) (12)	 b. *I believe [_{CP} for her to be innocent]. c. I believe [_{TP} her to be innocent]. 	for-CP ECM
	 b. *I believe [_{CP} for her to be innocent]. c. I believe [_{TP} her to be innocent]. d. I believe [_{DP} her account]. 	for-CP ECM DP
	 b. *I believe [_{CP} for her to be innocent]. c. I believe [_{TP} her to be innocent]. d. I believe [_{DP} her account]. a. I want [_{CP} that he leave]. 	for-CP ECM DP that-CP

2 ECM vs. object control

- Recall that with A-movement to subject position (i.e. raising), there is a contrast with control verbs:
 - (13) a. He does seem [$_{TP}$ he to scare them]. raising
 - b. **He** does want [_{CP} **PRO** to scare them]. *control*
- \Rightarrow Let us call this a contrast between SUBJECT-TO-SUBJECT RAISING and SUBJECT CONTROL (since the controller is a subject).

• PRO is always a subject

Note that PRO is always a subject and never an object. 'Subject control' does *not* refer to the controllee (PRO) being a subject, but to the controller being a subject.

* ECM vs. object control

The same kind of contrast exists between ECM infinitives and OBJECT CONTROL:

- (14) a. I believed [him to go to school]. ECM
 - b. I persuaded him [PRO to go to school]. control

- Pretheoretically, the difference between ECM and object control is that:
 - With ECM, the accusative-marked DP associated with the embedded clause is an argument of the *embedded* clause.
 - With object control, the accusative-marked DP associated with the embedded clause is an argument of the *matrix* clause.
- Under the raising analysis of ECM, the contrasts line up nicely:
 - subject-to-subject raising vs. subject control
 - subject-to-object raising vs. object control

2.1 Distinguishing ECM and object control

• Expletive 'it'

Only ECM predicates allow an expletive *it* subject:⁶

- (15) a. It was believed [CP that he went to school].
 - b. *It was persuaded [$_{CP}$ that he went to school].

2 Expletive 'there'

Only ECM predicates allow an expletive there subject:⁷

- (16) a. I believe there to be a solution.
 - b. *I persuaded there to be a solution.

i Idioms

Only ECM predicates preserve idiomatic interpretations:

- (17) a. I expected the shit to hit the fan.
 - b. #I persuaded the shit to hit the fan.

4 Equivalence under passivization

Passivization of the embedded predicate does not change the meaning in ECM constructions, but it does radically change it in object-control constructions:

- (18) a. He persuaded the doctor [PRO to examine Alex].
 - b. He persuaded Alex [PRO to be examined by the doctor].
- (19) a. He wants [the doctor to examine Alex].
 - b. He wants [Alex to be examined by the doctor].

* TP for raising/ECM, CP for control

A standard component of analyzing the difference between raising/ECM and control is that raising/ECM infinitives are TPs and control infinitives are CPs.

⁶ This happens for ECM predicates only when the embedded clause is a CP (which blocks A-movement out of it).

⁷ As with subject-to-subject raising, this is only possible when the embedded predicate is itself compatible with *there*.

References

Chomsky, Noam. 1981. Lectures on government and binding. Dordrecht: Foris. Lasnik, Howard, and Mamoru Saito. 1991. On the subject of infinitives. In Proceedings of the 27th Annual Meeting of the Chicago Linguistic Society (CLS 27), 324–343. Chicago, IL: Chicago Linguistic Society.

Postal, Paul. 1974. On Raising. Cambridge, MA: MIT Press.