Approaches to Null-Comp*

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Περίληψη

Αυτό το άρθρο συγκρίνει μερικές απο τις διάφορες υποθέσεις για την προαιρετική απουσία του εξαρτημένου συμπληρωματικού δείκτη *ότι* ("that" στα αγγλικά) υπό διάφορους όρους που διαφέρουν κατά γλώσσα, όπως τεκμηριώνεται στην αρχή του άρθρου. Πρώτα, συνοψίζω δύο προηγούμενες υποθέσεις, που βασίζονται στην πραγματολογία (Drachman 1997) και στις παραμέτρους της μορφοσυντακτικής παραλλαγής (Drachman 2002). Αλλά, απαντώντας σε δεδομένα που δεν εξηγουνται με αυτές τις υποθέσεις, προσθέτω δύο ανταγωνιστικές μινιμαλιστικές (minimalist) λύσεις, Pesetsky-Torrego 2000 και Bošković-Lasnik 2002, που η κάθε μία ορίζει τους σημαντικούς αλλά διαφορετικούς ρόλους των ανερμήνευτων χαρακτηριστικών του Chomsky. Μέσα σε αυτό το κοινό πλαίσιο, συγκρίνω αυτές τις δύο υποθέσεις με τα κριτήρια της οικονομίας των αρχών και των μηχανισμών.

Keywords

Null-Complementizer, parentheticals, pragmatics, parameters, uninterpretable features, PF-Filter, Case theory.

Introduction

1. English:	I hope/ believe/ wish/ claim (that) he'll come back
	I didn't believe (that) he'd come back
2. German:	Ich hoffe/glaube/wunsche mir *(da?) er zuruckkommen wird
	Ich hoffe/glaube/wunsche mir (*da?) er wird zuruckkommen
	*Ich glaube nicht, er wird zuruckkommen
3. Standard French:	Je crois *(que) Jean reviendra
N.American Fr:	Je crois (que) Jean reviendra
4. Standard Italian:	Credo (che) abbia gia' parlato con te
	Dice *(che) tu porti il libro
Florentine:	Credo (che) abbia gia' parlato con te
	Dice (che) tu porti il libro
5. Modern Greek:	Elpizo/pistevo (oti) tha ksanajirisi
	Ipostirizo *(oti) tha ksanajirisi
	Then pistepsa *(oti) tha ksanajirisi

This paper first compares how and why the subordinating complementizer ('that' in English) is *optionally* omitted under various language-specific conditions, as documented above, on which I summarize earlier hypotheses involving Parenthetical-pragmatics (Drachman 1997) and Parameters of syntactic variation (Drachman 2002). But data involving *obligatory* presence or absence of Comp is not explicable on such lines. As a result, we supplement those early accounts with two Minimalist solutions (in Pesetsky- Torrego 2000 and Bošković-Lasnik 2002),

comparing and contrasting these from the point of view of economy of principles and mechanisms.

A.   Earlier Accounts

    1.   ʹParentheticalʹ verbs.

Consider first the fact that Comp-ʹthatʹ deletion is in Greek and German, vs. English, practically confined to verbs with potential ʹparentheticalʹ readings (believe, vs. claim), cf.

        Pistevo o Petros tha elthi, but
        *Ipostirizo o Petros tha elthi,

and has thus a strong pragmatic component. This may be tested by applying various kinds of ʹenrichmentʹ, such as Tense-change and/or Negation, Person/number-change, adverbial-modification, as in the Greek examples above. Under any of these (as against ʹbareʹ unmodified 1sg, Present Indicative) as in:

        Pistevo tha erthi,   but   *Den pistevo tha erthi
        *Pisteva tha elthi   **Den pisteva tha elthi

the semantic content of the verb is augmented, and no longer supports a bleached, parenthetical reading as in 'den pistevo tha erthi'. And Informal surveys for German and Modern Greek largely confirmed the predicted inter-person variable sensitivity of the construction (Drachman 2002)

    2.   Parameters of variation.

Drachman 2000 took the argument a stage further. Some languages (e.g. English) do not constrain that-deletion to the parenthetical verbs at all; it thus tried to predict the apparent dispersion of that-deletion, from Standard French (near-nowhere deletion), through Greek and Italian, to end-point English (near-everywhere deletion), in terms of discrete parameters. We considered: numeration, the relevant class of matrix verbs, alternative Comp-host projections in Left-Field (cf. Rizzi 1997, Roussou 2001), concrete-morphological richness of Comp-paradigms, and alternative checking of Comp features (Cocchi & Poletto 2001).

    3.   A temporary proposal.

Greek has NULL-Comp, resembling English, as a numeration-option, vs. St. French, German and Zulu. The Greek option is co-licensed under diverse L-specific (semantic, syntactic, concrete morphological) conditions as between the matrix verb, Comp, and the Complement-clause. German and Italian (but not Greek) share alternative checking.

B.   Extending the picture

The parentheticals plus parameters approach dealt plausibly with the optional cases of comp-deletion in general across the languages mentioned. But it set aside as orthogonal the cases of obligatory presence or absence of Comp, and so unwittingly failed to constrain the numeration option settled for.

1.   New work

In repairing this strategic error of omission, consider now solutions in works that examine the very nature of Comp and its overt/covert forms. Such are Pesetsky 1992, Pesetsky-Torrego 2000 and Bošković-Lasnik 2002. We may distinguish two main trends in these works, narrowing the empirical base now to just English and Greek.

1.1.   With antecedents in Kayne 1980 and Stowell 1981, Pesetsky's 1992 account assumes that the declarative complementizer is an affix, which then (in its zero form) raises to a governing matrix verb. The Complementizer 'that' is now radically reinterpreted as being not a Complementizer at all (the declarative Comp in English being null), but rather the spellout of Tns-in-C. Crashes, as below, are interpreted as violations of government and the ECP.

*(that) Jack will win is to be hoped.

The Pesetsky-Torrego 2000 paper in turn goes further, and also abandons government. On the above case, it concludes that not a Filter such as the ECP, but the (Minimalistic) laws of movement/ attraction, in particular the need to neutralise uninterpretable features, determine whether a CP can become a Subject.

1.2.   Contrast the reinterpretation of Pesetsky 1992 in Bošković-Lasnik 2002. Comp-incorporation into the matrix verb is here assumed to be not the result of syntactic Raising (C-to-V) but rather of Chomsky 1957 Affix-Hopping[1], an incorporation at PF rather than in the syntax. The reanalysis again emphasises the fall of the last bastions of government, and furthermore is in concept and implementation simpler than Pesetsky-Torrego 2000.

More, B-L claim higher empirical content for their account. A single but simple example must suffice to illustrate that. Consider the derivation:

a) was widely believed [$_{CP}$ C [$_{IP}$ he liked linguistics]]
b) was widely believed+C$_i$ [$_{CP}$ t$_i$ [$_{IP}$ he liked linguistics]]
c) $_{CP}$[t$_i$ $_{IP}$[he liked linguistics] was widely believed+C$_i$

Pesetsky 1992 ruled this example-type out as a violation of the ECP (the S-initial trace is not properly governed). But, as B-L point out, the ECP is satisfied derivationally; the null-C does indeed c-command and p-govern the trace left by C-to-Verb movement immediately after that movement (as in b) – even though it no longer does so at SS (as in c). So this basic example-type remained unaccounted for! But the issue may in the end not depend on empirical coverage. The Pesetsky-Torrego version of 2000 substitutes Case here: a declarative clause can only be

Nominative if introduced by 'that'[2]. B-L in turn also exclude the example without appeal to government and the ECP, but without invoking Case-theory either: It crashes simply in violation of the PF-Filter – since the two heads are not P-adjacent, the affix is stranded instead of being incorporated.

2.   Reactions for Greek

How then does the overall simpler Bošković-Lasnik analysis handle the Greek equivalents to the extended null-comp data for English? Considering the adjacency condition as a *Stranded-Affix Filter, Comp is obligatorily overt (i.e. is not incorporated) if it is not adjacent to the verb. How do the obligatory-comp cases respond to such a Filter? Consider the following selection of constructions involved, for English and Greek:

2.1.   Obligatorily overt comp

1. Subject-S : PF Vb + C violation

         That he likes linguistics is believed by everyone

         (To) <u>oti</u> tu-aresi i-glossologia <u>pistevete</u> apo olus

2. Extraposition: The adverbial phrase blocks adjacency – to which we return!!!

         They believed at that time that they would fire her

         <u>Pistevan</u> s'ekines tis imeres <u>oti</u> tha tin aporipsun

3. Pseudo-Cleft: The copular blocks adjacency in:

         What our opponents believed was <u>that</u> they would beat us

         Afto pu <u>nomizan</u> i andipali-mas ine <u>oti</u> tha mas nikisun

4. Postposed matrix Vb: Here a PF Vb+C adjacency-violation again:

         *(That) P is clever, I believe

         *(Oti) o-Petros ine eksipnos, pistevo

5 Topicalisation : PF Vb+C violation

         <u>That</u> John likes Maria, Peter refuses to <u>believe</u>

         (To) <u>oti</u> tu-aresi i-Maria tu-Janni, arnite na to <u>pistepsi</u> o Petros

6. Gapping: Non-adjacency. A gapped verb cannot be a null-comp host

         Mary believes <u>that</u> Peter is still studying, but Jane <u>that</u> he′s gone to the cinema

         I Maria <u>pistevi</u> oti o-Petros diavazi akoma, alla o-Jannis <u>oti</u> exi pai sinema

7. RNR: An intonation-pause blocks adjacency

         Peter thinks, and I believe, <u>that</u> we will win the contest

         O Petros nomizi -- ke ego pistevo -- <u>oti</u> tha kerdisoume ton agona

The Adjacency Filter certainly seems to cover the data, plausibly and economically, though example 6 (involving gapped verbs) might seem semi-stipulative.

2.2.   Obligatory null-Comp

Coming now to the more difficult cases, those of obligatory null-comp. These will require more machinery. Take only the important case involving Subject-extraction. For non-extraction cases, there is no adjacency-blocking in either English or Greek

> I believe (that) this coat will suit him, vs.
> Pistevo (oti) tha tu pai afto to palto

But cf. extraction in:
> Which coat do you think (*that) [[t] will suit him]
> Pyo palto nomizis (oti) [tha tu pai t]

Here the English shows obligatory null-comp; the well-known that+t Filter in effect making incorporation the only option. But Greek shows no that-t effect, and the comp-option remains.

2.3.   Digression

First, as PF-incorporation circumvents the need for government and the ECP, so contemporary theory is bound to reinterpret the that-t effect. Since Bošković-Lasnik do not discuss this filter directly, we first recall earlier versions, which essentially claim with NC 1981 that t-in-comp cannot government (or more simply c-command) t-in-Subject-position across 'that'. Coming now to minimality versions, Pesetsky-Torrego 2000 reinterpreted, this filter as follows:

1. Declarative Comp as host to Wh-movt bears u(uninterpretable)T & uWh features, both having the EPP property.

2. Suppose the nearest Wh-phrase is a non-Subject. Then
   the uT feature on C is deleted by T-to-C movement, while
   the uWh feature on C is deleted by Wh-phrase movement.

Since T-movement obtains, T-in-C is pronounced, in fact as 'that' in:

> "What did John say <u>that </u>Mary will buy?"

3. Alternatively, suppose the nearest Wh-phrase to C is the Nominative Subject. Then, since T = Nominative, moving the Nominative Subject to Spec-of-CP will simultan-eously delete both u-features on C, i.e. uT and uWh. Independent T-to-C movement is now unnecessary, hence barred. 'That' is obligatorily absent, as in:
   > "Who did John say (*that) will buy the book?"

4. But for non-extraction cases, C does not also bear uWh, and 'that' is optional! How do we get the null-option in:
   > "Mary thinks that Sue will buy the book"
   > "Mary thinks Sue will buy the book"?.

Under the Pesetsky-Torrego approach, interpretability is relativised to a potential host. For Overt that: T moves to Spec,Comp cancelling uT in Comp. But T on TP is interpretable, as the sentence Tense, and so is pronounced

TP(32) Mary believes [$_{CP}$ [$_T$ that]$_j$ [C, u̶T̶] [Sue will$_j$ buy the book]

For Null-Comp: once again the Nominative Subject does the job. Attracted by uT on C, Nom-Subject moves to Spec-CP, satisfying the EPP property of C's uT feature. But uT on the Nom-Subject Specifier is uninterpretable and must be deleted

TP(34) Mary believes [$_{CP}$ Sue, u̶T̶]$_j$ [C, u̶T̶] [$_{IP}$ t-Sue$_j$ will buy the book]

Thus, in seeking to delete its uT feature[3] in embedded declaratives, C apparently chooses freely[4] between TP and Spec-CP as Goals, the choice resulting in either overt or null-Comp -- by relativised interpretability.

2.4.   Recall now the Greek reaction to the that-t Filter

'Pyos ipes oti agorase ena vivlio tu Chomsky?'
'Pyon ipes oti filise i-Maria?'

It may be that Rizzi's (1982) post-verbal Subject hypothesis is sufficient for Greek[5]. Could we interpret this under a Pesetsky-Torrego-like equidistance factor? Or under a B-L–like concession (below) that both Subject and Object extraction obtain via IP-adjunction? What about the B-L version on Subject extraction? Take their example:

"Who do you believe sincerely is crazy?"

Now assume that Subject-extraction must obtain via Spec-CP rather than by adjunction to IP. Then we must make two further stipulations concerning null-Comp:

a) it must carry the EPP feature, following Chomsky 2000/2001, to force that movement, and (as a B-L extension)

b) it must be a <u>non</u>-affix[6] – so that no attempted incorporation is involved, thus making it irrelevant that null-C is non-adjacent to the Verb, and giving us:

"Who$_i$ do you believe sincerely [$_{CP}$ t C [$_{IP}$ t is crazy]]?"

Note here that the Standard French case as in:

"Quelle femme crois-tu [<u>que</u> Pierre a rencontre -]?" = whom
"Quelle femme crois-tu [<u>qui</u> - a rencontre Pierre]?" = who

is automatically covered in B-L but requires further mechanisms in P-T. Thus, B-L, simply assume that que (with Object extraction) is a C without the EPP feature (locality cannot here force EPP, hence there is plausibly no C-selection (pg 9), while qui (with Subject extraction again via Spec,CP) is a locality-selected C with EPP.

P-T, on the other hand, introduce a revived[7] case-based interpretation, involving derivation order for extractions. Take as analog the case of multiple questions (as in Bulgarian), where uWH on C enters multiple Agree or Move relations (first Nominative, then Accusative). Then French qui-Comp is the form taken by T as the second element attracted by uT on C.

C. Towards a conclusion

Of the earlier accounts we surveyed in Part I, the conditioned optional null-comp in embedded declaratives of Drachman (2002) seemed viable. But the analysis of the cases of obligatory presence/absence of comp in Pesetsky and Bošković-Lasnik provided the more radical solutions we have discussed. There (in Part II) we compared aspects of the purely syntactic Agreement (Merge/Move) model with the movement plus PF Affix-Hopping model. Although both models require auxiliary hypotheses, they both provide cost-free replacements for the ECP and Government[8]. On the economy of principles and mechanisms, take just the cases of non-extraction: here P-T require at least two mechanisms (involving case theory for S-initial CPs but closeness for Topicalisations) vs. B-L's homogeneous PF-Filter. But we are bound to add the counter view, viz. that the B-L account requires diverse analyses for the extraction and non-extraction cases. Further, though we might contend that B-L's account is conceptually and implementationally simpler, at least for part of the data, their PF-Filter thesis is itself not without problems. We have space for only two.

1. Adjacency.

The adjacency condition on incorporation with adjuncts still needs clarification. If Comp-incorporation obtains at PF, it should do so only under strict string adjacency, so that e.g. an adjunct or copula may not intervene. The resulting non-adjacency between Comp-source-position and matrix verb predicts the crash of S-types such as:

"We believed at that time *(that) John would win the prize"
"What the terrorists believe is *(that) they will highjack an airplane"
"It seemed at that time *(that) John had left"

Cf. parallel Greek cases:

"Afto pu pistevun ine *(oti) tha borusane na klepsune tin-trapeza"
"Pistevame s'ekini tin imera ?(oti) tha kerdisi to-vravio o-Yannis"
"Fenotane tote *(oti) ixe figi o-Petros"

However, for English as for Greek, some informants find such sentences moderately acceptable, especially in casual speech. The question thus remains as to what constitutes an incorporation-host.

2. On Defining a host.

Compare the cases:

    a)   <u>obligatory that</u> in The proof *(that) he did it vs. The fact (*that) Mary did it

        so that null-Comp basically demands a Verbal host. Yet we have

    b)   <u>optional null-C</u> in The person (that) John criticised

        so that null-Comp heading a Relative clause can be hosted by a Nominal; and also

    c)   <u>obligatory null-C</u> The person whom (*that) John criticised

        where we see that 'whom' relativizer can also be a null-Comp host.

To a comment (pc) by Lasnik, recall the tradition that Relative ʹthatʹ is actually a different lexical item, and note that, unlike complementising ʹthatʹ, it does not trigger that-t violations, cf. ʺThe man that t leftʺ. Greek of course supports the tradition; subordinating comp and relative particles are distinct in both phonological shape and morphological status, as cf. uninflected óti vs. inflected {Article+opí-}.

        Finally, consider how to reconcile the earlier data (Part I above, on the <u>option</u> of having either overt or nullcomp) with our two new stories. Pesetsky's account revolves round the deletion of an uninterpretable TENSE feature on Comp. If this obtains through Tns-to-C, overt 'that' emerges. However, if it obtains by moving the (equidistant) Nominative Subject to Spec-CP instead, T-to-C becomes unnecessary and thus impossible, and null-Comp results. In turn, the Boskovic-Lasnik version centres on the value of the AFFIX -feature on null-Comp. For the basic (the non-extraction) option-cases, we can thus only be dealing with a pronounced (i.e. a non-affixal) instance of Tense in Comp, e.g. 'that', alternating with a null-Comp with the feature [+affix] (i.e. with obligatory incorporation).

We therefore add the numeration option 'affixal null-Comp', and conceptually locate the null-option on Comp as a discourse (casual speech) default.

D.   Coda

The result of our comparisons is apparently a tie for data-coverage, but favours Bošković-Lasnik over Pesetsky-Torrego on the issue of minimal principles and mechanisms, at least for the earlier P-T account. And the debate has been very worthwhile. Gaining impetus in the mid-90s through Chomsky's insistance on the importance of uninterpretable features, null-Comp research in the end hastened the downfall and replacement of government and the ECP, and provoked re-evaluations of Case theory, interpretability, and extraction-routes. It also illuminated the multiple-interfaces with syntax, from pragmatics (the parentheticals constraint of Pt I) to morphology (the shapes of Comp exponents in Part I), to phonology (the phonological Filter of Pt II), thus importantly impacting both central and peripheral issues in the study of language.

Notes

[1] Cf. Morphological -Merger in Halle & Marantz 1993, Bobaljik 1994/5, and Lasnik 1995.

[2] though necessarily assuming the link with CP as Subject rather than Topic (contra Koster 1978)

[3] We are now far from the simple numeration option found in Optimality Syntax: e.g. Bakovic & Keer 2001, who take precisely this approach to the complementizer option, as opposed to the Tied-Constraint ranking of the same options in Pesetsky 1998. For both these works the obligatory presence/absences depend on constraint rankings involving the now superfluous ECP, and we will say no more about them in this place.

[4] Since, by a c-command (vs. a node-counting) metric, these are equidistant from C

[5] But cf. the counter.-arguments in Roussou 2002, and the alternative account of *that-t there. Also, the rejoinders and alternative to the Roussou and Pesetsky-Torrego versions in Kim 2003.

[6] agreeing with Chomsky 2002, on the two kinds of null indicative comp.

[7] cf. Chomsky's 2000 downgrading of case: movement is not driven by Case-checking requirements, but by u-features on probes. Cf. also Ormazabal 2000: Object-movement (A-movement) is driven by an animacy feature -- syntactic Acc does not exist, and Object movement responds to the constraint that inherently +animate arguments must move out of VP.

[8] The data-coverage indeed distinguishes the two treatments in favour of the P-T account, but the B-L asccount explicitly addresses only the data in Pesetsky 1992 and it remains unclear how B-L would handle the non-overlapping P-T data.

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