Logical Readings of
Elided Expressions in Minimalism

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Kim, Young-roung. 2001. Logical Readings of Elided Expressions in Minimalism, *Journals of the Linguistic Association of Korea* 9-1, 115-132. This paper is aimed at examining data concerning the logical interpretation of elided expressions. Some sentences in discourse are frequently incomplete, the missing part being interpreted with reference to the context, linguistic or otherwise. Writing explicit rules to achieve this is a difficult task. A purely syntactic account of VP ellipsis that makes no reference to interpretation is also possible. The generation or licensing of VP ellipsis construction is contingent on some notion of syntactic identity between VP ellipsis and its antecedent. This paper looks at the logical meanings of VP ellipsis regarding QR, pseudo-gapping, ACD, Binding Principles, Relative Clauses, and Spec-head Agreement, based on minimalist assumptions. **(Woosuk University)**

1. VP Ellipsis and QR

One of the strongest argument for a level of LF comes from antecedent-contained deletion (ACD) constructions. They are closely related with VP ellipsis to form a case of the VP ellipsis constructions as in (1-2)

(1) a. Hans met Rosemary, and Bill did, too
   b. Although Hans met Rosemary, Bill didn't
   c. Although Hans did, Bill didn't meet Rosemary
   d. Hans met everyone that Rosemary did
   e. Hans said that Rosemary did

(2) a. Hans [$_{VP2}$ met Rosemary], and Bill did [$_{VP1}$ e], too

b. Although Hans [$_{VP2}$ met Rosemary], Bill didn't [$_{VP1}$ e]

c. Although Hans did [$_{VP1}$ e], Bill didn't [$_{VP2}$ meet Rosemary]

d. Hans [$_{VP2}$ met everyone that Rosemary did [$_{VP1}$ e]]

e. Hans [$_{VP2}$ said that Rosemary did [$_{VP1}$ e]]

Examples in (2), embedded in some discourse, are well-formed, with VP1 taking its antecedent from that discourse. A VP ellipsis takes as its antecedent a VP in the same sentence. In (2a-c), VP$_1$ takes a VP in the same structure, namely VP$_2$, as its antecedent, with no issue of antecedent containment arising. (2d, e) shows the special case of ACD constructions: VP$_1$ is contained within VP$_2$ and VP$_2$ is understood as the antecedent of VP$_1$. A problem that arises is that while (2e) is ill-formed, (2d) is not.[1]

Following S-structure and prior to LF, the content of the antecedent VP are copied in by a syntactic operation. The major argument for this approach lies in the ability to account for a range of parallelism effects governing the interpretive possibilities available for VP ellipsis. The minimalist program avoids two extra assumptions such as LF-Copy and the addition of the designated terminal string to the lexicon[2]. The PF-deletion operation is assumed in the minimalist model as the mechanism for trace-gap creation.

Based on the LF-copy theory, the structure (2e) is assumed as input to the copy-operation. There is a syntactic reason for the fact that VP$_1$ cannot take VP$_2$ as its antecedent. The output of copying results in a structure (3b), which contains a second instance of VP$_1$, thus requiring

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1) It can be thought that there are semantic reasons for the ill-formedness of structure, namely that there is no finite interpretation that can be assigned. In (2e), for instance, the content of VP$_2$ ('what Hans did') is dependent upon the content of VP$_1$ ('what Rosemary did'), but since the content of VP$_1$ is in turn dependent on 'what Hans did.'

2) The LF-copy operation, which is not reducible to Chomsky's (1995) "Move" or "Merge"; and the addition of the designated terminal string to the class of lexical items.

to be replaced by a copy of VP$_2$. The derivation will accordingly slip into infinite regress. A well-formed LF cannot be derived:

(3) a.   Hans [$_{VP2}$ said that Rosemary did [$_{VP1}$ e]]

     b.   Hans [$_{VP2}$ said that Rosemary did [$_{VP2}$ **say that Rosemary did** [$_{VP1}$ **e**]]]

When we follow this approach, the finding with respect to (2d) is that the given structure cannot be the correct one. Assuming that the antecedent VP is copied into [$_{VP}$ e], the structure given will lead to the same problem of infinite regress just sketched in (3) for (2e):

(4) a.   Hans [$_{VP2}$ met everyone that Rosemary did [$_{VP1}$ e]]

     b.   Hans [met everyone that Rosemary did [$_{VP2}$ **meet everyone that Rosemary did** [$_{VP1}$ **e**]]]

Following May (1985), the approach to (2d) is assumed to be the correct one for S-structure. Therefore S-structure cannot be the level for the copying operation. It is proposed that the S-structure representation is altered in the LF-component in a way that the VP ellipsis is no longer contained within its antecedent VP prior to the copying operation to derive a well-formed LF. The operation that achieves this is Quantifier Raising.[3]

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3) It raises the object NP containing the VP ellipsis in the relative clause out of VP, adjoining it to IP. Thus, if we assume that the grammar contains a rule like QR that moves a QNP at LF and adjoins it to IP then we can solve the regress problem posed by (i). At LF the relevant structure of (i) is (ii)

(i) John kissed everyone that Sally did [$_{VP}$ e]

(ii) [$_{IP}$ [Everyone [that [Sally did [e]]]$_i$ [$_{IP}$ Bill kissed t$_i$]]

By copying *kissed t$_i$* into the null VP we obtain (iii), which also provides an accurate representation of the meaning of (i): "everyone such that Sally kissed that person is such that Bill kissed that person."

(iii) [[Everyone [that [Sally did [kissed t]]]] [Bill kissed t]]

Thus, when deleted elements get content via copying or some analogous

(5) a. SS: Hans met everyone that Rosemary did [vp e]

    b. QR: [ip [np **everyone that Rosemary did [vp e]**] [ip Hans. met t]]

    c. Copy: [ip [np everyone [cp *Op* that R. *Past* [vp **meet** *t*]]] [H. *Past* [vp **meet** *t*]]]

At the stage at which copying applies, the antecedent VP consists of the verb and the trace left by QR, and the dependent VP is no longer contained within its antecedent. Copying the antecedent VP into the VP ellipsis leads to avoid regress.

2. Pseudo-Gapping and ACD

A VP gap is interpreted as identical in meaning to the indicated VP, assuming that this is accompanied by copying the non-elided VP into the gapped VP position to yield (7):

(6) Hans *kissed Bill's mother* and Rosemary did [vp e] too

(7) Hans kissed Bill's mother and Rosemary did [vp kiss Bill's mother]

Different from May (1985) and Fiengo and May (1994), Lappin (1992) claims that ACD constructions be assimilated to pseudo-gapping ones such as (8). ACDs have the structure (9) in which only V has been elided.

(8) Hans ate a doughnut and Frank did a cracker

(9) Hans ate everything which$_i$ Bill did [v e] t$_i$

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process, then we can circumvent the regress problem in ACD structures, assuming that QR applies at LF and thereby alters the domination relations among the participating VPs.

There are some problems with this suggestion, however. First it is very clumsy to pseudo-gap in the following cases.

(10) a. ?*Hans will gave this book to Bill and Frank did Sam

b. ?*Hans doesn't expect to win but Bill does to lose

c. ?*Hans might talk about Sam and Frank did Sally

The corresponding ACDs as in (11) are considerably more acceptable. This is unexplained if the ACDs are species of PG structures.

(11) a. Hans will give this book to everyone that Bill did

b. Hans doesn't expect everyone that Bill does to win

c. Hans might talk about everyone that Bill did

Second, the problem with both VP deletion and PG constructions lies in explaining the reason why they are not bounded at all, because these operations are not part of sentence grammar and so should be free. It is possible for PG and VP deletion to operate into islands and across sentences

(12) a. Hans saw Bill. I wonder whether Frank did (Sam)

b. Hans saw Bill and I heard a rumor that Frank did (Sam)

c. Hans kissed Rosemary and I met several people who said that Bill did (Jane)

Given the freedom to delete, a question arises in connection with the limitation on the process. May (1985) and Baltin (1987) provide rationales for the boundedness phenomenon in terms of avoiding regress. Pseudo-gapping never encounters a regress problem. As such, problems that arise are boundedness restrictions and the limits of the scope of elision. We are also faced with the issue concerning why ACDs are not always acceptable.

PG is not good when it occurs inside some relative clauses:

(13) Sally and a few others won first prize and Sam congratulated everyone who did (*first prize)

(13) is unacceptable with the reading "...*I congratulated everyone who won first prize*." However, given this, it is hard to see how it is that PG could underwrite ACD constructions. The VP deletion version of (13) is acceptable. Therefore, it is unlikely PG operates in those contexts in which ACDs occur, in contrast to VP deletion. This shows evidence against reducing ACD constructions to PG structures.

3. Binding Principles and Elided VP

Fiengo and May (1990) notes that the interpreted elided material in ACDs conforms to the Binding principles, detailing the properties of the copied expressions and considering their logical meanings. May (1985) notes that if VP deletion is a copying rule of some kind then it requires a rule of LF for the correct target for copying to be produced.

(14) a. *Rosemary introduced Hans$_i$ to everyone that he$_i$ did
     b. Rosemary introduced Hans$_i$ to everyone that his$_i$ mother did

As noted in Fiengo and May (1990), we can point out two things about this pair of sentences: First, the contrast is unexpected if SS is taken as the relevant level for satisfying the BT. In neither example would any principle of BT be contravened if *Hans* were antecedent of *his/he*. Second, the contrast is accounted for once the elided material is copied into the VP gap. The structure of the sentence at LF prior to copying is (15):

(15) a. [[Everyone that he did [$_{VP*}$ e]]$_i$ [Rosemary [$_{VP1}$ introduced Hans to t$_i$]
     b. [[Everyone that his mother did [$_{VP*}$ e]]$_i$ [Rosemary [$_{VP1}$

introduced Hans to t$_i$]]]

If VP$_1$ is copied into VP* in the two LFs, we end up with the following structure:

(16) a. . . . that he introduced Hans to . . .

  b. . . . that his mother introduced Hans to . . .

It is clear why the contrast obtains. Principle C prevents *he* in (16a) from being coindexed with *Hans* because *he* c-commands *Hans*. Nothing prevents this coindexing in (16b). Hence, if elided material in ACDs must respect BT we derive the contrast.[4][5]

Fiengo and May (1994) point out that the elided VP also meets other binding conditions.

(17) *Rosemary introduced him$_i$ to everyone that he$_i$ did

(18) Rosemary introduced him to everyone his mother did

(19) a. [Everyone that he$_i$ did [VP e=introduced him$_i$ to t]]

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4) This argument has three strong conclusions: First, VP ellipsis actually involves copying of syntactic structure. Second, the BT must apply at LF, i.e. after ACDs are interpreted. Third, the BT cannot apply at SS. The first conclusion follows on the assumption that the BT applies to phrase markers.

5) Fiengo and May also argue that there are relations with respect to Principle C in ACDs. However, the issues are less clear. Consider the examples in (1) that Fiengo and May cite.

(1a) Mary always buys him whatever John's other friends do

(1b) Mary gave him for his birthday the same thing that John's mother did.

In (1) we appear to have a principle C violation if the indirect object pronoun c-commands the direct object. Fiengo and May argue that this is just an apparent violation, because, at LF after QR, the whole QNP is no longer c-commanded by the indirect object. The same argument applies to (1b). If QR moves the definite description out of the VP at LF, then no principle C violation should ensue. The proposed structures for the two sentences are given in (2).

(2a) [[Whatever John's other friends do [e]]i [Mary always buys him ti]]

(2b) [[The same thing that John's mother did]i [Mary gave him for his birthday ti]]

[Rosemary introduced him$_i$ to t]

   b. [Everyone that his$_i$ mother did [VP e=introduced him$_i$ to t]]
       [Rosemary introduced him$_i$ to t]

(17) contrasts with (18). The LF structures of the pair are provided in (19 a, b). The binding in (19a) between *he* and *him* violates principle B, because *him* is not free in its domain. In (19b), in contrast, *his* does not c-command *him* so there is no principle B violation.

Specified subject effects in the ACD contexts are further pointed out in Fiengo and May.

(20) a. Rosemary introduced him$_i$ to everyone Hans$_i$ wanted her to
    b. *Rosemary introduced him$_i$ to everyone that she wanted Hans$_i$ to

(21) a. [Everyone that Hans$_i$ wanted her to [e=introduce him$_i$ to t]]
     Rosemary introduced him$_i$ to t]
    b. [Everyone that she wanted Hans to [e=introduce him$_i$ to]
     Rosemary introduced him$_i$ to t]

The LF expressions are given (21). It is clear from these that indexing *Hans* and *him* in (21a) should be fine. The intervening subject *her* functions to license the binding. In (21b), in contrast, the binding violates principle B. *Hans* and *him* are in the same domain and so binding is illicit.

As things are not clear, we require an additional assumption to make the BT work out right in some relevant cases. Consider the following case of VP ellipsis and its LF representation after ellipsis representation.

(22) a. Rosemary loves Hans$_i$ and he$_i$/Hans thinks that Sally does too
    b. . . . he$_i$/Hans thinks that Sally does [love Hans$_i$] too

The LF structure in (22b) should lead to principle B violation. However, the second conjunct in (22a) is quite acceptable under the

indicated interpretation. To accommodate such cases, a notion of 'vehicle change' is introduced in Fiengo and May (1994).[6] Now let us consider a case of ACD and vehicle change. The sentence (23a) without vehicle change is expected to be unacceptable as it violates principle C as in (23b). With vehicle change it is well formed (23c). Contrast this with (24a-c) in which the sentence is ungrammatical even after vehicle. (24c) violates principle B with the indicated coindexing.

(23) a. Rosemary introduced Hans$_i$ to everyone he$_i$ wanted her to [e]
    b. *Everyone he$_i$ wanted her to [introduce Hans$_i$ to t] . . .
    c. Everyone he$_i$ wanted her to [introduce him$_i$ to t] . . .
(24) a. Rosemary introduced Hans$_i$ to everyone she wanted him$_i$ to [
    b. Everyone she wanted him$_i$ to [introduce Hans$_i$ to t]
    c. Everyone she wanted him$_i$ to [introduce him$_i$ to t]

4. Relative Clauses and Elided VP

Given the lack of extraposition of appositive relative clause, Baltin's approach also accounts for these data. Such data, however, raise a problem. What appears to be a problem proves to be a nice one. There are many cases of ACDs with appositive relative which are acceptable.

(25) *Hans suspected Bill, who Tom did
(26) Hans suspected Tom, who incidentally, Bill did as well

It thus appears that the indicated judgment in (25) has little to do with ACDs per se. The relative unacceptability of (25) is more likely related to the peculiar intonation properties of appositives. Furthermore,

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6) If two elements A, B are semantically coextensive except for their pronominal features, then they can be substituted for each other. The effect of vehicle change is to eliminate principle C effects in ellipsis. More specifically, only violations of principle C that are also violations of principle B will lead to ungrammaticality.

it appears that standard cross-sentential VP ellipsis requires these sorts of particles *as well.*

(27) a. Hans left and Bill did *(too/as well)
     b. Hans is tall and Rosemary is *(too/as well)

Considering that appositives are interpreted as simple conjuncts with the relative pronoun coreferential with the head, it is likely that the unacceptability of (25) can be grouped with those in (27). Then (25) ceases to be a problem for this analysis. However, the acceptability of (26) becomes an argument against either a QR treatment of ACDs or an extraposition approach, given that appositive relatives are not subject to QR nor do they support extraposition.

A way of accommodating the data in (26) within an approach that still treats names as distinct from QNPs is to make the latter subject to QR. There is a parallelism between appositive relative clauses and conjuncts. Licit ACDs in appositives are tied to this. Thus, (26) is interpreted at LF as (28) and this is what accounts for the acceptability of ACDs.

(28) Hans suspected Tom, and, incidentally, Bill did as well

Taking into account pronominal binding facts, this assimilation of appositives to LF conjuncts gains support. There is a sharp difference in acceptability in binding into restrictive versus appositive relative clauses.

(29) a. Everyone/no one$_i$ likes the man who just kissed his$_i$ mother
     b. *Everyone/no one$_i$ likes Hans, who, incidentally, just kissed his$_i$ mother

This can be accounted for if (29b) is interpreted as a matrix conjunct, like the appositive in (28). It patterns with (30) in which the bound pronoun is outside the scope of its quantificational antecedent.

(30) Everyone/no one$_i$ likes Hans$_j$ and he$_j$, incidentally, just kissed his$_i$ mother

Let us consider further data in (31).

(31) a. *Everyone/no one$_i$ expect Hans, who, incidentally, kicked his$_i$ friend to leave.

   b. *Everyone/no one$_i$ expect Hans, who, incidentally, kicked his$_i$ friend would leave

Both sentences in (31) are unacceptable with the indicated binding. If, in both cases, the appositive relative is treated as a matrix conjunct, they are paraphrased as (32).

(32) a. *Everyone/no one$_i$ expect Hans$_j$ to leave and he$_j$, incidentally, kicked his$_i$ friend to leave.

   b. *Everyone/no one$_i$ expect Hans$_j$ would leave and he$_j$, incidentally, kicked his$_i$ friend.

However, if this is correct we expect that appositive relatives should freely license ACDs in (33). In order words, if appositives are matrix conjuncts at LF as the data in (31) suggest, whether they are raised at LF to Spec AgrO should be irrelevant. This is incorrect, as the contrasts in (33) indicate.

(33) a. Hans believes Bill, who Tom does as well, to be a spy.
   b. *Hans believes Bill, who Tom does as well, is a spy.

The acceptability of (33a) in contrast to (33b) follows if raising to Spec AgrO is required to feed ACDs in appositive relative clauses to avoid regress. However, the contrast is difficult to account for simply by assuming that appositive relative clauses are LF conjuncts.

Hornstein (1994) assumes that the gap in ACD constructions is a VP,

which is incorrect.[7] On non-minimalist accounts it is unclear whether the gap is a VP or a V'. Assuming a minimalist account, the option of it being an AgrO' comes into play.[8]

The problem is that a minimalist theory assumes LF V-movement to T_o and then to AgrS in languages like English. After all movement has taken place, an LF phrase marker has the following form.

(34) $[_{AgrSP}$ NPs $[_{AgrS'}$ $[[_{Vk} + _{AgrOj}]$ +T $]]_i$ AgrS$]$ $[_{TP}$ t_i $[_{AgrOP}$ NPo $[t_j$ $[_{VP*}$ t_s $[_{VP}$ t_K t_o $]]]]]]]$

It raises a problem. If NPo contains an elided predicate we cannot interpret it by copying ArgS' into it. Assume it has the structure (35).

(35) $[_{NP}$ Q $[_{N'}$ N $[_{CP}$ WH-$_i$ $[_{IP}$ NP$_j$ did $[e]$ . . .$]]]$

To get a well-formed LF we need to complete the A'-chain headed by the relative WH-operator in CP and the A-chain related to the subject NP$_j$. This is necessary on empirical as well as theoretical ground given that in (36) *Bill* has a clear theta role, in fact the same theta role that *Hans* has. Copying the VP* into $[e]$ allows us to accommodate this fact.

(36) Hans ate everything that Bill did.

But, if we copy AgrS' from (34) into $[e]$ we will end up with NPs

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7) Hornstein (1994) has argued that a minimalist assumption of ACDs has considerable empirical support. Given that ACDs are tied to A-movement, the boundedness effects observed in Baltin (1987) follow directly. The counterexamples to boundedness noted by Larson and May can be accounted for. Furthermore, given that this A-movement takes place at LF, the problems noted for Baltin's analysis by Larson and May do not beset this approach.

8) Hornstein also assumes that V has not raised to AgrO at the point at which copying takes place. However, it is consistent with the above account that V raises to AgrO first and then the copying proceeds.

coindexed with NP_j. To complete NP_j's A-chain we copy AgrS' into [e]. For NP_j's A-chain to be licit, NP_j and the trace in the subject of VP^* have to be coindexed; S=j. But this leads to a principle C violation at LF and so this indexing should be illicit. Honstein (1995) puts forward several ways around this problem: First we might assume that indices are not copied. This is consistent with minimalist assumptions. A second way, also consistent with minimalist principles, is to base generate subjects directly in Spec AgrS and not move them there from VP.   A 3rd way is to assume that it is not the output of LF, the interface LF phrase marker, that is, the one that obtains prior to V-raising to AgrO. Concretely, at LF prior to copying, we would have the phrase markers (37) and (38), the latter being a detailed version of the internal structure of NP_o. The trace of WH-movement inside the relative (38) sits in Spec AgrO and has been generated prior to LF. We then copy VP1 in (37) into [VP e] in (38). This completes the A-chain required for interpretation.

(37) $[_{AgrSP} NP_S [_{AgrS'} AgrS [_{TP} T_i [_{AgrOP} NP_O [AgrO_j [_{VP} t_s [_{VP1} V_K t_O]]]]]]]$

(38) $[_{NP} Q [_{N'} N [_{CP} WH-_i [_{IP} NP_j did [_{AgrOP} t_i [AgrO [_{VP} t_j [_{VP} e]]]]]]]]$

5. Spec-Head Agreement and Elided VP

The minimalist program eliminates the asymmetry by treating all case assignment as an instance of the Spec-head relation. The principle consequence of this analysis of case is the assumption that NP objects of verbs and prepositions move to Spec position of higher AGR nodes in order to fulfill case requirements. A central tenet of minimalism is that structural case marking is a Spec-head phenomenon. Accusative case is discharged in Spec AgrO. The V+AgrO complex checks the case of the NP in Spec AgrO position after the verb has raised to AgrO as in (39a). It is assumed that structurally prepositional case is assigned in a similar fashion as in (39b)

(39) a. [. . . [$_{AgrOP}$ NP$_{obji}$ V$_j$+AgrO [$_{VP}$ e$_j$ t$_i$]]]

b. [. . . [$_{AgrP}$ NP$_i$ [P$_j$ + Agr [e$_j$ t$_i$]]]

A second consequence of the elimination of non-X'-notion is that the ECP becomes a suspect principle. Considering that without the blocking relation, the barrier relation cannot be defined, and without the barrier relation the antecedent government relation cannot be defined. In short, the minimalist program must do without the ECP.

The most likely place for barrier-like notions within minimalism is in stating locality conditions for overt movement. Accusative case is assigned when the object moves out of VP into Spec AgrO. In English, this operation takes place at LF. Furthermore, the movement is obligatory given the postulated relation between case marking and feature checking. The structure of a transitive clause is (40) (Chomsky 1993: 7, ex.2):

(40) [$_{CP}$ Spec [$_{C'}$ C [$_{AgrSP}$ Spec [$_{AgrS'}$ AgrS [$_{TP}$ T [$_{AgrOP}$ Spec [$_{AgrO'}$ AgrO [$_{VP}$ NP$_s$ V NP$_o$]]]

At LF, NP$_{o(bject)}$ moves out of its SS position and raise to Spec AgrO where it is case marked. This is a case of A-movement, which is obligatory and applies at LF. This operation moves NP$_o$ out of the VP and so enables the LF structure of an ACD construction to avoid any regress program. Consider an example, with the relevant structure displayed.

(41) a. Hans bought everything that you did [e]

b. Hans$_j$ [T [$_{AgrOP}$ [everything that you did [e]]$_i$ [$_{AgrO}$ [$_{VP}$ t$_j$ [$_{VP1}$ buy t$_i$]]]

If we interpret [e] in (41a) as the VP1 in (41b) we get the desired ACD configuration.[9]

In addition, we are able to account for virtually all of the data noted

above. Recalling minimalist considerations, an expression only moves to check its features. Therefore, once in Spec AgrO an NP object will typically cease its peregrinations. Consider Baltin's original example.

(42) Who thought that Fred read how many of the books that Bill did.

The NP$_o$, *how many books that Bill did,* is moved to the Spec AgrO of the embedded clause. Any further A-movement is blocked by the economy considerations that block long A-movement. The only VP that this NP has been moved out from under is the most embedded one. Thus, only this one can be copied without running into the regress problem. VP2 is not a candidate for copying into the null VP position as it dominates the null VP. This leaves VP1 as the only source of the ACD interpretation.

(43) Who [$_{VP2}$ thought [$_{CP}$ that [$_{IP}$ Fred$_j$ [$_{AgrOP}$ [how many of the books that Bill did]$_i$ [$_{AgrO}$ [VP t$_j$ [$_{VP1}$ read t$_i$]]]]]]]]

This approach to ACDs also accounts for the data noted in Larson and May.

(44) a. *I expect everyone you do will visit Rosemary.
     b. ?I expect everyone you do to visit Rosemary.

The minimalist story outlined above implies this contrast. (44b) is an ECM structure where the embedded subject is case-marked by the higher predicate. In minimalist terms, this means that *everyone that you do* raises to the matrix Spec AgrO position at LF and so out of the matrix VP that dominates it at SS. But this then licenses copying of

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9) More operations may have to apply to yield a licit LF. However, what is crucial is that LF A-movement circumvents the regress problem.

this VP into the empty VP in the relative clause. This same operation, however, is barred in (44) as it is not an ECM structure and raising to the matrix Spec AgrO violates a slew of conditions. This account for the contrast in (44) does not run into the same problems that the QR theory faces.

6. Conclusion

Concerning the relations between VP ellipsis and QR, I review that, by applying QR operation raising the object NP which contains VP ellipsis and adjoining it to IP, regress problem can be avoided. This paper also examines the previous idea that the level for the copying operation should be LF, not S-structure. It turns out that Lappin's claim on reducing ACDs to PG raises some problems, as it does not clearly explain ACDs and boundedness restrictions. May (1985)'s idea of the LF copying operation and Chomsky's proposal for applying QR at LF are also reviewed, in connection with some problems raised by Fiengo and May (1994)'s idea of reducing ACDs to PG.

Explaining the relations between relative clauses and elided VP, we find some problems, as appositive relatives are not subject to QR nor do they support extraposition. A Spec-head agreement should be also respected in elided constructions.

However, in the context of the minimalist framework, Hornstein (1994) proposes a variant of QR account of ACD resolution, citing conceptual and empirical reasons for rejecting the QR-based solution to the ACD. When we accept his non-QR-based solution to ACD constructions, another solution to regress should ensue accordingly. Thus disagreement still remains to be solved as to the nature of elided expressions.

References

Baltin, M. (1987). "Do Antecedent-contained deletion exist?" *Linguistic Inquiry,*

18, 537-577.

Baltin, M. (1991). "Head Movement in Logical Form," Linguistic Inquiry (18) 579-95.

Chomsky, N. (1995). *The Minimalist Program*, MIT Press: Cambridge, Mass

Chomsky, N. (1993). *A Minimalist Program for Linguistic Theory.* Cambridge, MA: MIT Press.

Fiengo, R. & May, R.   (1990). *Anaphora and Ellipsis*, MS, UC Urvine and CUNY.

Fiengo, R. & May, R. (1994). *Indices and Identity*, MIT Press: Cambridge, Mass.

Higginbotham, J. (1980)."Pronouns and Bound Variables," *Linguistic Inquiry, 11,* 679-708.

Higginbotham, J. (1983)."Logical Form, Binding and Nominal,"*Linguistic Inquiry, 14,* 395-420.

Hornstein, N. (2001). *Move! A Minimalist Theory of Construal*, Blackwell.

Hornstein, N. (1995). *Logical Form from GB to Minimalism*. Blackwell.

Hornstein, N. & Weinberg, A. (1995)."The Empty Category Principle,"*Government and Binding Theory and the Minimalist Program* edited by G. Webelhuth. Blackwell.

Hornstein, N. (1994). "An argument for Minimalism--the case of Antecedent-Contained Deletion," *Linguistic Inquiry, 25,* 455-480.

Huang C-T. J. (1995). Logical Form,"*Government and Binding Theory and the Minimalist Program* edited by G. Webelhuth. Blackwell.

Huang C-T. J. & May, R, (Eds.). (1991). *Logical Structure and Linguistic Structure: Cross-Linguistic perspectives,* Dordrecht: Kluwer.

Lappin, S. (1992). The Syntactic Basis of VP Ellipsis Resolution," *In proceedings of the Stuttgart Ellipsis*, Workshop, ed. S. Berman and A. Hestvik. University of Stuttgart. Stuttgart.

Lappin, S. (1996). The Interpretation of Ellipsis," *In the Handbook of Contemporary Semantic Theory,* ed. S. Lappin. Blackwell, 145-175.

Larson, R. & May, R. (1990). Antecedent containment or vacuous movement? Reply to Baltin," *Linguistic Inquiry* (21) 103-122.

May. R. (1985). *Logical Form: Its Structure and Derivation.* Cambridge, Mass.: MIT Press.

Williams, E. (1977)."Discourse and Logical Form," *Linguistic Inquiry, 8,* 101-139.

Williams, E. (1988). "Is LF Distinct from S-Structure?": a reply to May. *Linguistic Inquiry, 19,* 135-46.

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