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### 3.4 Extensions

Given the above analysis for answer fragments, there is an obvious extension to other kinds of fragments which have often been analyzed as involving a kind of clausal ellipsis, such as stripping in its various manifestations and other related 'elliptic conjunctions', as well as perhaps gapping. The analysis of fragment answers proposed here is particularly reminiscent of movement approaches to stripping and gapping, as proposed in Sag 1976 and Pesetsky 1981, and articulared more recently in Johnson 1996, 2001, Kim 1998, Depiante 1999, Hoji 1987, 1990, Fukaya and Hoji 1999, Hoji and Fukaya 2001, Fukaya 1998, 2002 (see Johnson 2001 for extensive discussion and references to related work). These analyses stand in contrast to non-movement approaches like Chao 1987 and Reinhart 1983 and non-ellipsis approaches like Reinhart 1991 and McCawley 1991. At issue are data such as (1)-(4) and perhaps (5) and (6) (the latter two cases are less clear; see McCawley 1991 for discussion).
(1) Abby speaks passable Dutch, and Ben, too.
(2) Abby speaks passable Dutch, AND Ben.
(3) Abby speaks passable Dutch, (but) not Ben.
(4) Abby speaks Dutch, but Ben? No way.
(5) $\%$ John didn't drink coffee, but tea.
(6) $\%$ John drank not coffee but tea.

Cast in the particulars of the current proposal, a stripping example like (1) will have the following structure:


There is considerable reason to believe that stripping involves clausal ellipsis, and is not merely movement of the string and Ben from a position next to Abby (or viceversa, as Reinhart 1991 proposes). First, we note that sloppy identity is possible in stripping, and the grammatical form of dependent elements in the pronounced clause are consistent only with a singular, not plural, antecedent (number on bound pronouns and predicates, possibility of elements like respective(ly), dependent plurals):
(8) Abby emigrated from her country at a young age, and Beth, too.
(9) a. Abby AND Beth emigrated from their (respective) countries at young ages.
b. *Abby emigrated from their (respective) countries at young ages, AND Beth.

Second, sloppy identity in stripping is contingent on c-command, as Reinhart 1983 showed:
(10) You can keep Rosa in her room the whole day, but not Zelda. [sloppy ok]
(11) Her father played with Rosa the whole day, but not Zelda. [sloppy not possible]

English stripping is thus parallel to Japanese case-marked stripping, which also allows sloppy identity under familiar conditions; see Hoji 2002 for extensive discussion and some important empirical complicatons for Reinhart's claim. Japanese non-case-marked 'stripping', on the other hand, shows a complex and only partly overlapping set of anaphoric dependency effects (giving rise to 'pseudo'-sloppy readings)-this difference is important in that it indicates that English stripping can presumably not be reduced to a kind of reduced cleft or the like as in the case for non-case-marked stripped fragments in Japanese.

Another indication that the conjunction involved in stripping is clausal conjunction and not DP conjunction comes from the behavior of stripping with respect to Yoon's 1996 'partial' predicates like be dirty. As Yoon notes, such predicates differ from predicates like be clean in being true of a composite entity even if the predicate holds only of proper subparts of the entity. In particular, a partial predicate can be true of a conjoined subject as in (12a) without entailing (12b) (whereas replacing dirty by clean does allow the entailment to go through).
(12) a. The plates and the bowls are still dirty. $-/ \rightarrow$
b. The plates are still dirty and the bowls are still dirty.

A stripping example like (13), however, does have the same truth conditions as (12b) above, not as (12a).
(13) The plates are still dirty, and the bowls, too.

Similarly, while conjoined DPs are licit as subject of group predicates like meet, these predicates cannot occur in stripping, as noted in Depiante 1999:136ff:
(14) a. The minister and the president met in Geneva last weekend.
b. *The minister met in Geneva last weekend, and the president.

Furthermore, it is well known that certain sentential and speaker-oriented adverbs can occur in stripping:
(15) Abby speaks passable Dutch, and \{probably/possibly/fortunately \}en, too.

Finally, as noted in Depiante 1999, who proposes a derivation like the one here, a movement analysis of stripping has the further correct consequence of capturing the fact that P -stranding requirements are obeyed cross-linguistically as well; this fact and its consequences were noted independently in Giannakidou 2000 as well. In a P-stranding
language like English, fragment DPs can have correlates inside PPs, or the PP may be pied-piped, as in (16). In non-P-stranding languages like Greek, on the other hand, the preposition must be pied-piped in stripping fragments as shown in (17a), though DP coordination under a preposition in situ is perfectly possible, as in (17b); these data slightly modified from Giannakidou 2000:486.
(16) I spoke with Sakis yesterday, and (with) Anna.
a. Milisa me ton Saki xthes, kai $*(m e)$ tin Anna.
I.spoke with the Sakis yesterday and with the Anna
'I spoke with Sakis yesterday, and (with) Anna.'
b. Milisa me ton Saki kai tin Anna xthes.
I.spoke with the Sakis and the Anna yesterday
'I spoke with Sakis and Anna yesterday.'

The facts are the same for Spanish and Hebrew, as Depiante's 1999:106-107 examples show:
(18) a. Juan escribe para Clarín y *(para) La Nación también.

Juan writes for Clarin and for The Nation too
'Juan writes for Clarin and (for) The Nation, too.
b. María quiere leer en el patio y no *(en) la sala de estar.

Maria wants to.read in the garden and not in the room of to.be
'Maria wants to read in the garden, and not (in) the living room.'
David diber im Maria, aval lo *(im) Yael.
David spoke with Maria but not with Yael
'David spoke with Maria, but not (with) Yael.'
All of these kinds of facts are difficult to account for under the non-ellipsis accounts of Reinhart 1991 and McCawley 1991 which relate the stripped DP to its correlate by movement (forming a conjoined DP at some level of representation-LF for Reinhart, D-structure for McCawley), but are expected under the traditional clausal ellipsis analysis.

As discussed in the previous section, the present theory of ellipsis locates the government effects and variability in licensing environments discussed in greatest detail by Lobeck 1995 in the lexical entries of the various E features ${ }^{1}$. For sluicing, the relevant E is $\left[u \mathrm{wh}^{*}, u \mathrm{Q}^{*}\right]$, for fragment answers it is $\left[u \mathrm{~F}^{*}\right]$. For stripping, this lexical theory of ellipsis gives us a transparent means for capturing one of the oft-noted persistent thorns in the side of any analysis of stripping: stripping is possible only in the local presence of a conjunction, and not with other clausal connectives, as the following data illustrate.
(20) Abby wanted to take Dutch,
a. *because Ben.
b. *only while Ben too.

[^0]c. *after not Ben.
*Abby claimed Ben would ask her out, but she didn't think that Bill (too).
Of course, as long as the antecedent clause and the stripped clause are coordinated, they can together be embedded:
(22) Jack regretted that Abby got to go,
a. and Ben, too.
b. $A N D$ Ben.
c. but not Ben.

On their relevant readings, the above are equivalent to the following:
(23) a. Jack regretted that [Abby got to go and Ben got to go, too].
b. Jack regretted that [Abby got to go AND Ben got to go].
c. Jack regretted that [Abby got to go but Ben didn't get to go].

Traditionally this was thought of as a condition on the structural description the transformation itself, which stipulated that a conjunction must be present in the analysis string (as in Hankamer 1979, for example). The restriction to coordinate structures has been more recalcitrant to deal with since the theory of transformations banned lexical items from appearing in structural descriptions. Two approaches have appeared in the more recent literature to handle this restriction. The first is a categorial grammar approach which does not employ ellipsis, instead type-shifting the meaning of the coordinator (or allowing multiple coordinators in the lexicon), as represented, for example, by Hendriks 1995. The second derives the restriction by reducing stripping (as merely the limiting case of gapping) to across-the-board movement, as in Johnson's 1996 clever proposal. From the present perspective, the difference should be located in the lexicon, with the obvious candidate being the specification of the featural requirements of the E feature that occurs in stripping. I propose that this E has the following lexical specification, where $u \mathrm{~F}^{*}$ is the strong F feature discussed above for fragment answers (presumably Foc), and Conj is the lexical feature that distinguishes coordinating conjunctions like and, but (and perhaps the asyndetic coordinator Koster 1998 labels ;) from subordinating conjunctions like because, while, and after, etc. ${ }^{2}$

$$
\begin{equation*}
\mathrm{E}_{\text {stripping }}\left[u \mathrm{~F}^{*}, u \mathrm{Conj}\right] \tag{24}
\end{equation*}
$$

Note that the fact that the uninterpretable $u$ Conj on $\mathrm{E}_{\text {stripping }}$ is weak means that it can be checked in situ by an application of Agree (e.g., Agree(and, E; Conj)), and does not necessitate movement into the higher head's local domain. ${ }^{3}$

[^1]More intricate questions arise when we consider what the precise structure is of what I will call negative stripping examples like (3), repeated here.
(25) Abby speaks passable Dutch, (but) not Ben.

Two possibilities suggest themselves. The first is that not is like a sentential adverb (see below), left-adjoined to FP or in the specifier of a Neg head which takes FP as its complement (cf. Foreman 1999's ' $\mathrm{NegP}_{2}$ '):


The second possibility is that not forms a constituent with the fragment, hence the usual term for this structure, 'constituent negation' (or 'contrastive negation'), as proposed by McCawley 1991 and Depiante 1999.


For all its widespread use, the phenomenon which the term 'constituent negation' describes is rife with difficulties and poorly understood. With the single exception of McCawley 1991, no fully worked out, cross-categorial compositional semantics has to my knowledge ever been given to constituent negation. ${ }^{4}$ Although it is neither my goal nor within my abilities to give a comprehensive analysis here, I digress briefly in order to present some relevant cross-linguistic evidence which must inform any theory of the distribution of such negators.

The first thing to note is that while languages with phrasal (adverbial) negators like English, German, Dutch, and French use these in negative stripping, languages with

[^2]head negators such as Greek, Italian, and Russian use the sentential negative answer word 'no' instead (as do languages with affixal negation, like Turkish and Swahili). ${ }^{5}$
(28) a. EngAnna left, but not Ben. * Anna left, but no Ben.
b. GerAnna ging, aber nicht Ben. * Anna ging, aber nein Ben.
c. Dut Anna ging, maar niet Ben. * Anna ging, maar nee Ben.
d. Fr Anna est partie, mais pas Ben. * Anna est partie, mais non Ben.
(29) a. Gk * I Anna efige, alla dhen o Ben. I Anna efige, alla oxi o Ben.
b. Ital * Anna è partita, ma Ben non. Anna è partita, ma Ben no.
c. Rus* Anna poshla, no ne Ben. Anna poshla, no Ben njet. Anna went but not Ben not Anna went but no Ben no

The same distribution is found in negative reduced protases of conditionals:
(30) a. English If he comes, it'll be fine; if $\{n o t / * n o\}$, we have a problem.
b. German Wenn er kommt, wird's gut sein; wenn \{nicht/*nein\},
c. Dutch Als hij komt, zal't goed zijn; zo \{niet/* nee\},
if he comes will it good be if not no
dann haben wir ein Problem.
dan hebben wij een probleem.
then have we a problem
(31) a. Greek An erthi, tha'ne kala; an $\{*$ dhen/oxi $\}$, tha exoume provlimata.
b. Italian Se arriva, bene; se $\{*$ non/ no $\}$, avremo problemi.
if comes will.be good if not no we.will.have problems
We also find exactly the same split in negative why sluices (see Horn 1978:pp for this identification):

| a. English | why | not? | * why | no? |
| :--- | :--- | :--- | :--- | :--- |
| b. German | warum | nicht? | * warum | nein? |
| c. Dutch | waarom | niet? | * waarom | nee? |
| d. Danish | hvorfor | ikke? | * hvorfor | nej? |
| e. French | pourquoi | pas? | * pourquoi | non? |
| f. Tsez | shida | anu? | *shida | ey? |
| a. Greek | * giati | dhen? | giati | oxi? |
| b. Italian | * perchè | non? | perchè | no? |
|  | why | not | why | no |

And in 'whether/if TP or not' constructions:
a. Eng I don't know whether he'll be there or $\{$ not $/ *$ no $\}$.
b. Ger Ich weiß nicht, ob er da sein wird oder $\{$ nicht/*nein\}.

[^3]c. Dut Ik weet niet of hij daar zou zijn of $\{n i e t / * n e e\}$.
a. Gk Dhen ksero an tha ine ekei i $\{*$ dhen / oxi $\}$.

And in standard 'constituent negation' contexts:
a. Eng He invited $\{$ not/*no $\}$ Abby, but Ben.
b. Ger \{Nicht/*nein \} Abby sondern Ben hat er eingeladen.
c. Dut \{Niet/*nee\} Abby maar Ben heeft-ie uitgenodigd.
a. Gk Proskalese $\left\{{ }^{*}\right.$ dhen/oxi $\}$ tin Abby alla ton Ben.

This distribution is compatible with both phrase-structural options presented in (26) and (27) above; both require that the negator be phrasal (either as a specifier or as an XP adjunct). The more complex structure in (26) has the advantage that the semantics is entirely usual and straightforward, negation being a one-place propositional function. It may also shed some light on the following puzzling data:
(38) Abby speaks passable Dutch, ...
a. $\quad$ (al)though Ben too.
b. *(al)though Ben.
c. (al)though not Ben.

Unless (al)though here has merely taken on the status of the coordinating conjunction but, these data show that negative stripping has a wider distribution than its non-negative counterpart. One approach to regulating the distribution of the negator that occurs in all the above elliptical contexts (stripping, reduced protases, negative why sluices, and 'whether TP or not') would be to claim that the Neg head had a lexical specification that required that it be checked by these items (but, if, C[Q,wh], or) and which selects for an FP with an E feature. While certainly not elegant, this would capture this range of data making use only of known and independently motivated technologies for encoding lexical differences.

Although I have by no means exhausted the analytic challenges raised by stripping ${ }^{6}$, nor have I addressed the large literature on the topic adequately, I hope at least to have made it reasonable to believe that an ellipsis process is at work in these cases, and that this ellipsis is parallel in the relevant respects to that found in other clausal ellipses such as fragment answers and sluicing. Space also precludes discussion of another set of obvious extensions of the present analysis to other 'elliptic conjunction' phenomena illustrated below:
(39) Either Abby speaks Dutch, or Ben.
(40) Abby speaks more languages than Ben.
(41) Everyone stayed late $\{$ except (for)/but $\}$ Ben.

[^4]These constructions show a large overlap in properties to the cases discussed above, and indeed ellipsis analyses are typical especially for the first two (see Schwarz 1999 for an ellipsis analysis of (39), Kennedy 2002 and Lechner 2002 for ellipsis analyses of (40), and Fox 2002 for an analysis of extraposition that extends to exceptives like (41)). I will thus merely indicate for now my expectation that these can be subsumed in the approach presented above.


[^0]:    ${ }^{1}$ At least on the simplest theory of lexicon, in which each item is fully specified; more nuanced versions are compatible with what I am proposing as well (for example, that the featural requirements of E are built up in the respective derivations from an underspecified core E). I leave this complication aside for perspicuity.

[^1]:    ${ }^{2}$ As is well known (see Hendriks 1995, Lechner 1999, Kennedy 2002), stripping occurs in comparatives as well. On my account, unlike some others, an extension to comparatives is completely straightforward: either the standard markers than and as bear Conj, or $\mathrm{E}_{\text {stripping }}$ contains, essentially, a disjunction: $\left[u \mathrm{~F}^{*},\{u \mathrm{Conj}, u \operatorname{Stan}\}\right]$, where $\operatorname{Stan}$ is the relevant feature of the standard markers.
    ${ }^{3}$ Another possibility is that this restriction derives from some property of the F head itself (e.g., that it bears a $u$ Conj feature). Deciding between this possibility and the one pursued in the text reduces in some sense to deciding whether the F here is Foc as postulated by Rizzi 1997 and others (which does occur in simply embedded contexts), whether the

[^2]:    fragment movement is like CLLD (which also occurs in simply embedded contexts), or whether it is like German V2 (which does not occur in embedded contexts; see Reis 2002, and Büring and Hartmann 1997 for Vorfeld movement in 'special' coordinations).
    ${ }^{4}$ Thus, for example, (26) but not (27) gives a straightforward way of deriving the attested meaning of an example like (ia), given in (ib):
    (i) a. Beth said she wanted to take Spanish, when we asked her, but not French.
    b. Beth didn't say she wanted to take French.

[^3]:    ${ }^{5}$ In a substantial number of languages, the sentential negator and the negative short answer are the same morpheme (Spanish, Czech, Hebrew, etc.), making these languages unrevealing. Languages that have affixal sentential negation but lack a word for 'no' have no direct correspondents to the structures above (Irish, Chamorro, Cantonese).

[^4]:    ${ }^{6}$ For example, as Danny Fox points out, the present analysis, unlike an across-the-board movement one, does not require that the antecedent to the ellipsis be in the immediately preceding conjunct; the relevant examples, with minimal pairs with e.g. sluicing, to test whether this is true or not are very difficult to construct. A second open issue is why stripping, unlike VP-ellipsis and sluicing, is always forward, never backward; in this regard it is similar to pseudogapping, where a satisfying explanation of the directionality restriction is similarly lacking (though see Hardt 1999 for one account).

