PSEUDOGAPPING: ITS SYNTACTIC ANALYSIS AND CUMULATIVE EFFECTS ON ITS ACCEPTABILITY

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1. The problem of pseudogapping[1]

The phenomenon of pseudogapping (Levin 1980) has puzzled a great many linguists. Judgments on pseudogapping sentences are often insecure, because this type of ellipsis itself is often viewed as marginal (cf. e.g. Lasnik 1999) and informal, and in addition to this, shows a great deal of variation among speakers of English. While the term pseudogapping suggests a relation to gapping, several linguists have tried to assimilate it to VP-ellipsis instead (e.g. Kuno 1981, Jayaseelan 1990, Lasnik 1995, 1999, Takahashi 2004). Compare:

(1) a.   That may not bother you, but it does me.   [pseudogapping]
     b.   Smoke bothers Fred, and loud music Fred's parents. [gapping]
     c.   Smoke might have bothered Fred, but it didn't.   [VP-ellipsis]

Like gapping, pseudogapping involves the ellipsis of a verb (as well as, possibly, some additional elements), while nonverbal elements like direct objects may be left behind as remnants. Like VP-ellipsis, pseudogapping always leaves behind an auxiliary verb. The morphosyntax of pseudogapping is largely that of VP-ellipsis, then, and languages that do not have VP-ellipsis, such as German and Dutch, also appear to lack an exact parallel to English pseudogapping.[2]

(2) a.   *Dat stoort jou misschien niet, maar het doet mij.   [Dutch]
              that bothers you perhaps not, but it   does me
     b.   *Das stört dich vielleicht nicht, aber es tut mich.   [German]
              that bothers you perhaps not,   but   it does me

However, there is a marginal, in the sense of quite rare, phenomenon in Dutch that comes rather close as a parallel to pseudogapping. Some examples are listed in (3) below:

(3) a.   Perea beveelt hem, zooals ik Brigitta, onze dienstmaagd, doe[3]
              Perea orders him, like   I Brigitta, our   maid-servant, do
              'Perea orders him, like I do Brigitta, our maid'
     b.   men zal hem naar de galg sleepen, evenals men mijn broeder gedaan heeft[4]
              one will him to the gallows drag, like   one my   brother done   has
              'They will draw him to the gallows, like they did my brother'
     c.   Ik stak de papieren bij mij, evenals ik de ring had gedaan en keerde [..] terug.[5]
              I put the papers with me, like   I the ring had done and turned ..   back
              'I took the papers with me, like I had done the ring, and returned [..].'

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[2] The same is true for Italian, which has neither VP-ellipsis nor pseudogapping (Donna Jo Napoli, p.c.).
[3] From: J.F. Oltmans, *Het slot Loevestein in 1570* [published 1836]
[4] Ibidem.
[5] From: Karl May, *Kara ben Nemsi*, translated from German into Dutch by Gretha [circa 1900].

      d.   Ik zal net zo veel rekening houden met jouw gevoelens   als jij doet met die
              I will just so much consideration keep with your feelings as you do with those
              van de elfBI.[6]
              of the elFBI.

Note that all the above examples are comparatives of equality, an environment which is rather typical for pseudogapping in English as well (cf. Section 4, Table 1 below). Most examples are either old, or, as in the case of the last example, translations from English. Nonetheless, they do not strike me as ungrammatical. There are also variants involving the pro-form *het doen* 'do it', rather than *doen* 'do', cf.:

(4)   Overigens schijnt 't mij toe, dat je het huwelijk idealiseert, zooals ik het de dieren doe,
        incidentally seems it me to, that you the marriage idealize, like   I it the animals do
        volgens jou.[7]
        according to you
        'Incidentally, it seems to me that you idealize marriage, the way I do the animals,
        according to you.

What makes such examples relevant is the fact that, next to the VP-proform *het doen*, which normally replaces an entire VP, one may also find verbal arguments, such as direct objects. I should note that I have only found Dutch examples with the verb *doen* 'to do.' In this connection, it is interesting to point out that Levin (1980: 105) already speculated that the English pseudogapping construction originated with *do*, in sentences where the main verb *do* was reanalyzed as the auxiliary, and got extended, later on, to other auxiliaries. Unfortunately, the fact that pseudogapping is so rare in Dutch, and even to a large extent in English, makes it difficult to do extensive historical research on this matter.

      In this paper, I set out to do three things: (1) to provide arguments against the most popular current syntactic account of pseudogapping (sections 2 and 3), (2) to study the properties of this construction on the basis of corpus data (section 4), and (3) to study some of the same properties using a survey of introspective judgments (section 5). In the corpus study, the types of contexts in which gapping and pseudogapping take place are compared. Both gapping and pseudogapping require coordination-like environments, but pseudogapping clearly prefers comparative-like environments over regular coordination. This preference is clearly reflected in the questionnaire data. The latter also show differences in acceptability based on the type of remnant. Constraints on contexts and remnants turn out to be additive: sentences with dispreferred remnants and contexts are ranked lower than sentences in which only the context or only the remnants are dispreferred. The questionnaire data also show great individual variation.

2. Movement-cum-deletion

The analysis of pseudogapping that seems to be preferred nowadays, and certainly among syntacticians of the minimalist persuasion, involves moving the remnant material out of the VP, and then deleting the VP. Jayaseelan (1990) proposed that the movement involved was heavy-NP shift, Lasnik (1999) argued that it was Object Shift, of the kind that is overtly

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[6] Eoin Colfer, *Artemis Fowl: De eeuwige code*, p 169
[7] From: Christien Vierhout and Maurits Wagenvoort, *Tegen het leven is niet te strijden*, p 141.

attested in Scandinavian languages, and Takahashi (2004) has reasoned most recently that both operations might feed pseudogapping. The main and most obvious problem for this general kind of approach is that there is no evidence for overt movement out of the VP in English. The only way to make the analysis compatible with the word order facts of English is by making VP deletion obligatory after Object Shift. Otherwise, VP deletion is optional. In other words, VP ellipsis becomes a repair strategy, to wipe out a structure that is incompatible with the linearization principles of English. Lasnik (1999) accounts for this in terms of feature checking. Takahashi suggests that the theory of cyclic linearization, recently proposed by Fox and Pesetsky (2003) to account for, among other things, Holmberg's generalization in Scandinavian Object Shift, will extend to handle pseudogapping. The basic idea is simple: linearization requirements that were set in the VP must be kept intact later in the derivation. Object Shift moves an object across the verb to the front, and thus violates the ordering requirement. Only when the verb moves as well (as in Scandinavian) or when the verb is deleted, as in English pseudogapping, does the problem go away. Verb movement restores the linearization of arguments with respect to the verb, and verb deletion removes the violation in a different way. Clever though this approach may seem, by reducing pseudogapping in its entirety to already existing processes of movement and deletion, and independently needed principles of grammar, there is still some cause for concern. The first treatment of pseudogapping, Levin (1980), already provides an extensive list of arguments against reducing pseudogapping to VP-ellipsis (see also Culicover and Jackendoff 2005). Let me go over some of these arguments and add one of my own (argument no. 2):

- First, pseudogapping is far more restricted than VP-ellipsis. It primarily occurs in comparatives and comparative-like environments, and the movement-cum-deletion account does not offer any explanation of that observation, since neither VP-ellipsis, nor Object Shift, or any other kind of movement, is restricted, or primarily restricted, to such environments.

- Second, the approach does not generalize to the Dutch cases noted above, which do not seem to involve VP-ellipsis. The pro-form *doen* 'do' appears in sentence-final position in the examples in (3), the typical VP-final position of verbs in Dutch subordinate clauses, and not in some VP-external position, as in English. Dutch does not have English-type VP-ellipsis at all.

- Third, VP Deletion may apply in infinitival clauses, but pseudogapping may not (Levin 1980). Compare:

(5)   a.   I wrote his dissertation, but I did not want to.
        b.   *I wrote his papers, but I did not want to his dissertation.

        Actually, this problem can be solved if we assume that the movement involved is one that does not take place in infinitival clauses, such as, indeed, is the case with Object Shift. If, on the other hand, we think it is Heavy-NP shift, as Jayaseelan proposed, or Dutch-type scrambling, as proposed by Kyle Johnson (Johnson 2001), the problem is still with us in full force, because both types of movement operations are perfectly all-right in infinitival clauses.

- Fourth, backward deletion is OK for VP-ellipsis, but not for pseudogapping (examples from Levin 1980: 99):

(6)   a.   *Although it doesn't me, it takes Karen a long time to clean the hamster's
                cage.

     b.   Although it doesn't always, it sometimes takes a long time to clean the hamster's cage.

- Fifth, VP-ellipsis may apply in deeply embedded structures, where pseudogapping is marginal at best, and often downright ungrammatical (Levin 1980: 99):

(7)   a.   *Since tornadoes petrify Harold, I can't for the life of me figure out why he's so surprised about the fact that they do me, too.[8]

        b.   Since tornadoes petrify Harold, I can't for the life of me figure out why he's so surprised about the fact that hurricanes do, too.

- Sixth, there is a strong preference, noted by Levin (1980), for same-subject structures in pseudogapping, whereas there is no such requirement for VP-ellipsis.[9] As an illustration, consider the examples in (8), again taken from Levin (1980):

(8)   A: That thunderstorm bothered Millicent last night.
        B: ??Well, your stereo did me.
        B: I'm afraid my stereo did, too.

- Seventh, pseudogapping always involves a single auxiliary. Strings of auxiliaries such as can be found with VP-ellipsis, are degraded. Compare the following examples (Levin 1980: 100):[10]

(9)   A: Cream rinse makes my hair get dirty faster.
        B: ??It may have mine once, too.
        B: It might have a few years ago, but I doubt that it does, now.

- Eight, pseudogapping is lexically-restricted in ways that VP-ellipsis is not. For instance, copula *be* cannot be elided under pseudogapping, but it can under VP-ellipsis (judgments from Levin 1980):

(10)   a.   The one they choose might be Gail, but it might not.
        b.   The one they choose might be Gail, but it won't ∅ me.
        c.   A: Tim's preface has me in it!
                B: *It does me, too.
                B: I'm not surprised it does.

    Of course, this point could be taken care of in a number of ways in the movement-cum-deletion analysis, for instance, by noting that predicate nominals in general are barred

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[8] One of the reviewers for this journal finds (7a) "pretty acceptable". The ungrammaticality judgment for (7a) is Levin's. Presumably, though, there is a clear relative difference in acceptability between (7a) and (7b) for all native speakers.

[9] I believe that this point is connected to the previous one, and that it is the strong parallelism required by pseudogapping which also militates against deeply embedded structures, because the large amount of intervening structure will hinder the perception of any such parallelism.

[10] This observation needs to be amended if PP-remnants are to be accepted as bona fide pseudogapping remnants (something that Levin resists for reasons I do not fully understand). I offer the following examples as acceptable cases of pseudogapping with multiple auxiliaries:

    (i)   I hope it has been as good for you as it has been for me.
    (ii)   This book is a godsend for anyone who writes or publishes books on the Web. It certainly has been for me. (http://www.theromantic.com/ebooksecrets.htm)

from the movement in question. This is suggested, for instance, by Baltin (2000). However, as noted by Zoerner and Agbayani (2002), the restriction cannot be this simple, because some predicates in fact seem OK in pseudogapping. They offer example (11) as evidence for this claim:

(11)   I don't feel jubilant, but I do relieved.

Zoerner and Agbayani argue that the ban on pseudogapping of copula *be* is actually problematic in Lasnik's theory, because predicate nominals may show agreement, and hence should move to an Agr-position, outside of the VP. This is precisely what Lasnik (1999) proposes for pseudogapping, but then his analysis would have to extend to copula structures as well, as Zoerner and Agbayani correctly note. I would like to point out here that an analysis in terms of Scrambling a la Dutch, as proposed by Johnson (2001), is not going to help much either. While it is well-known that predicates on the whole do not scramble in Dutch (cf. De Hoop 1992), definite predicate nominals may (compare (12) below), and so the prediction would have to be, given this option, that definite predicate nominals may be remnants under pseudogapping in English. However, the result in (13) does not appear to be grammatical.

(12)   a.   Dat is niet mijn schuld.   [Dutch, no scrambling]
               that is not my   fault
        b.   Dat is mijn schuld niet.   [Dutch, scrambling order]
               That is my fault   not

(13)   *It sure isn't my fault, but it might his fault.

- Ninth, remnants in pseudogapping structures do not always appear to make good candidates for either Object Shift, or Heavy-NP shift. For instance, as pointed out by Levin (1980) and others, objects of prepositions may be remnants in pseudogapping, while the preposition is elided (compare the examples in (14) below). Levin called this phenomenon, following Ross, deprepositionalization. However, objects of prepositions may not undergo either Object Shift, or Heavy-NP shift (cf. e.g. Holmberg 1999 for Scandinavian Object Shift).

(14)   a.   Dr. Tommy didn't seem as nervous talking about skin as he did movies the other night.[11]
        b.   I would talk to her about my memories before I would my mother.[12]
        c.   The guy cares more about paperwork than he does the people.[13]
        d.   I'm afraid the jury pays more attention to the questions than they do the answers[14]
        e.   You care more about that brain than you do me.[15]
        f.   She cares more about the horse than she did the diamonds.[16]

The reason I am providing so many examples involving the ellipsis of a preposition is that the observation has sometimes been called in doubt (cf. e.g. Johnson 2001). Lasnik (1999) has

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[11] From: Elmore Leonard, *Maximum Bob*, p 111.
[12] From: www.blainn.cc/abuse/stories/anna.html
[13] John Travolta in "Chains of Gold."
[14] CNN, 31-3-1993.
[15] From the movie "The man with two brains."
[16] Episode of "Crime Scene Investigation."

suggested that the good cases of preposition drop in pseudogapping structures involve reanalysis of the kind often proposed for pseudo-passives, whereby the verb and the preposition function as a complex transitive verb, and indeed, all examples in (14) involve verb+preposition combinations that may figure in pseudo-passives. Be this as it may, we must still account for the fact that neither Object Shift, nor Scrambling, in languages where these operations are overt, seem to be compatible with preposition stranding. Passive is alone, in this respect, among A-movements, for reasons that are still not well-understood.

3. Pseudogapping without movement or deletion

In this section, I adopt an alternative to the movement-and-deletion approach, due to Miller (1990). The movement-and-deletion approach is elegant because it tries to reduce pseudo-gapping to other, independently attested, phenomena. Attempts to get rid of construction-specific rules or stipulations are typical, of course, for much generative work in the Chomsky tradition. However, as we saw in the preceding section, in the process of reduction many of the typical pragmatic properties of pseudogapping, such as the same-subject requirement, or the restriction to coordination and comparative-like environments, get swept under the rug. Even on purely syntactic grounds, the various proposals by Jayaseelan, Lasnik, Johnson, Baltin, and Takahashi, to name just a few, all suffer from lack of motivation for the movement rule they postulate, and so they will have to be rejected. Rather than invoking otherwise unattested transformations (at least for English), I believe we are better off with a nontransformational analysis such as the one proposed by Miller (1990). In Miller's interpretive treatment, auxiliaries are directly combined with remnants, and given a special interpretation, involving a contextual variable corresponding to the elided material. At the end of this section, I will address a point raised by one of the reviewers, which has to do with the amount of structure that must be assumed to exist at the pseudogapping "deletion" site.

It is an important characteristic of the proposal endorsed by Miller that it will permit interpretive ambiguities without having to postulate corresponding differences in the syntactic derivation. One such case, offered by Miller, is example (15a), with the interpretations given in (15b-c):

(15)   a.   The President asked Congress to fund the Contras more often than he did the
             Salvadorian government.
        b. $[[did]] = \lambda P.\textbf{ask'}(fund'(P))(\textbf{Congress'})$
        c. $[[did]] = \lambda P.\textbf{ask'}(fund'(\textbf{Contras'}))(P)$

One possible objection to a purely interpretive account is that it overgenerates because it fails to deal with island phenomena. Consider in this connection the example in (16), where the crossed-out material is meant to be elided, in violation of the Complex Noun Phrase Condition (Ross 1967) and of the Subjacency Condition (Chomsky 1973), a more general condition of which the Complex Noun Phrase Condition is a special case. If pseudogapping involves movement, and given that movement is subject to island conditions, the ungrammaticality of (16) on the relevant reading is straightforwardly predicted:

(16)   *Pete doesn't know a guy who studied with Chomsky, but he does ~~know a guy who studied with~~ Lasnik.

On an interpretive account, on the other hand, it is not clear why island phenomena should come into play at all. Instead, one would have to maintain that the complexity of the interpretation associated with the contextual variable should not be too great. However, it is

hard to see how such an account can be made precise and empirically testable in the way that island constraints are precise and falsifiable.

In response to this objection, one might note, first of all, that it is not at all clear whether current syntactic treatments are good at explaining the island phenomena either. Take for instance the following examples:

(17)   Last night someone put a bullet through his head, just like they did poor Mr. Felton.[17]
(18)   Why don't you put a bullet in his head like you did that man out there?[18, 19]

Semantically, it is easy to see what is going on in these examples. The context in (17) and (18) provides an interpretation that we could write out as in (19):

(19) $[[did]] = \lambda x.$**put-a-bullet-though-the head-of**$'(x)$

However, syntactically, the example is a mess. *Poor Mr. Felton* corresponds to a possessive pronoun in the antecedent, and for that reason should be treated as a genitive. But genitives do not move out of noun phrases in English, because of the constraint usually referred to as the Left Branch condition (cf. Ross 1967). Though some authors (e.g. Johnson 2001) have claimed that pseudogapping remnants can never be part of a noun phrase, it would seem that they are wrong on this particular point.

Johnson (2001) notes that Dutch scrambling is, in his words, 'hauntingly similar' to pseudogapping. Among other things, he notes that there is long-distance scrambling out of infinitival constructions, but not out of finite clause, which parallels findings with pseudogapping. For instance, (20) is out, and so is (21):

(20)   *dat Jan de krant$_i$ beweert [dat Sam t$_i$ leest]
         that Jan the paper claims that Sam t reads

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[17] Dutch TV, channel 1, September 15, 1993.

[18] Episode of "The X-Files."

[19] One reviewer noted that the examples in (17) and (18) might not be cases of pseudogapping, but rather sentences involving the main verb *do* in its idiomatic sense of *kill*. Compare:

(i)   Mr Blue may rat on us. Let's do him.

The same reviewer also noted that sentences similar to (17) and (19), but where *do* cannot mean *kill*, are no good:

(ii)   *Last night someone put a fresh coat of paint on his car, just like they did lucky Mr. Felton.
(iii)   *Why don't you put some ice in his drink like you did that man out there?

However, for some native speakers, (17) and (19) are ambiguous, permitting on the one hand the *kill*-reading pointed out by the reviewer, but on the other hand also a pseudogapping reading where *do* does not mean *kill*, but is used as a true pro-form instead:

(iv)   Someone put a bullet through his head, like they did poor Mr Felton, but luckily neither man died.

Note that (iv) would be a contradiction on the *do=kill* reading. It is possible that such readings are only found with inalienable possession (e.g. body part terms), and that this is what rules out the examples in (ii) and (iii). An additional naturally-occurring example of this kind reinforces this point:

(v)   Why oh why do Bush's handlers let him speak in public? Can't they just smear his gums with peanut butter the way they did Mr. Ed? Then they could have someone coherent address the nation for him. (From: mudbomb.com)

(21)   *While Doc might claim that O.J. Berman had read his book, he wouldn't the paper.

I have already pointed out a number of problems with the use of scrambling in the analysis of pseudogapping. But setting these aside, I believe that even here, we may find examples that are somewhat better than (21):

(22)   Blair looked as if he admired the Queen as much as he did the President.

If I am not mistaken, (22) has two readings, one where Blair's actual admiration of the President is compared to his admiration of the Queen, and one, more difficult to get, where his semblance of admiration of the President is compared to his semblance of admiration for the Queen. Just imagine a situation where Blair is intentionally putting up a show.
        Here is another example that I think is less degraded than (21):

(23)   I'm actually happier I talked to you than I am to him.

However, I must grant that so far, I have not encountered any naturally-occurring examples of this kind.
        A reviewer for this journal finds (23) ungrammatical, and has only one reading for (22). He or she notes that this might be seen as evidence for a syntactic approach along the lines of the analysis of VP-ellipsis and Sluicing in Merchant (2001, 2004), in which the ellipsis site has internal syntactic structure. For Merchant, working in a minimalistic framework, the presence of syntactic structure at the site of VP-ellipsis is required, among other things, by the possibility of extraction. A sentence such as (24a) is analyzed as (24b):

(24)   a.   Kim bought more flowers than I did
         b.   Kim bought more flowers than [*wh* [I did ~~buy~~ t ~~many flowers~~]

The syntactic structure supports to use of traces, for instance. Similar examples can be given involving pseudogapping, rather than VP-ellipsis, e.g.:

(25)   a.   Kim bought more roses than I did carnations.
         b.   Kim bought more roses than [*wh* [I did ~~buy~~ t ~~many~~ carnations]

Deletion of phrases is governed by a feature E (for ellipsis), which forces deletion of material, and at the same time requires that the material deleted be given in the discourse (the familiar recoverability condition on deletion). However, the deletion rule proposed by Merchant presumes that the deleted material forms a constituent, and that all nondeleted material has been vacated from that position beforehand. In other words, the proposal is compatible only with the movement-cum-deletion approaches criticized in section 2 above. If the arguments in section 2 hold water, we will need a different type of approach. I assume that (23) is grammatical, and that (22) has two readings, but that pseudogapping rapidly decreases in acceptability with the complexity of the contextual variable. The cumulative effects reported in section 5 below suggest rather strongly that pseudogapping is subject to a number of violable constraints. Any violation of these constraints causes decreases in acceptability, but not absolute rejection, since additional violations of constraints cause further decreases in acceptability. Various levels of complexity in the value of the contextual variable might

arguably correspond to various levels of acceptability, without necessarily forcing us to assume that cases like (23) have to be ruled out altogether.[20]

4. Pseudogapping and Gapping: Comparison of Corpus Data

The interpretive analysis of pseudogapping offered by Miller (1990) is one which recognizes the phenomenon as a construction by itself. As a direct consequence, it is rather easy to make the analysis suit the facts without too much ado. For example, the restriction to finite auxiliaries, noted by Levin, which does not carry over to VP-ellipsis, can now be stipulated in a very simple way, by requiring that the lexical items figuring in the pseudogapping construction have the feature [+finite]. This may not strike one as an interesting solution, but it is simple, and requires only minimal stipulation. More interestingly, there is now also a peg on which to hang pragmatic conditions on acceptability, such as the same-subject condition, and the requirement that the remnant must be in focus. For the latter point, consider the examples in (26):

(26) a. Maybe they fool YOU, but they certainly don't ME.
      b. *Maybe they FOOL you, but they certainly DON'T me.
      c. *They MIGHT have fooled me, but they DIDN'T me.

Unaccented remnants, as in (24b-c), are clearly out. This is something that pseudogapping has in common with gapping. But why? We can't suppose it has something to do with movement to Agr-O, as in Lasnik (1999) or with scrambling (Johnson 2001), because neither operation requires focus accentuation under normal circumstances. We clearly have a constraint on pseudogapping here, but if there is no pseudogapping, and this is what the movement-plus-deletion account really amounts to, then there is no place in the grammar for the constraint to apply to.

Pragmatic constraints on pseudogapping were studied in Levin's seminal study from the perspectives of usage and intuitions. However, the corpus she used was fairly small, and so was the group of informants for the usage data. Nonetheless many of her conclusions have survived the test of time, as a testimony to the quality of her work. Like Levin, I have also collected examples of pseudogapping over an extended period of time. For the interest of comparing pseudogapping with regular gapping, I also collected some naturally-occurring gapping data, from two languages, Dutch and English. The pseudogapping set consists of 227 examples, and this set includes as a subset all the naturally-occurring data from Levin's dissertation.[21] Classified according to syntactic context, the data are presented in Table 1 below:

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[20] Another matter is whether we need elaborate syntactic structure to support traces. This will obviously depend on one's theory of syntax. Nontransformational accounts of comparatives (e.g. the categorial grammar account in Hendriks 1995) do not make use of traces at all.

[21] Unlike Levin, I decided to include examples where the remnant is not the direct object of the elided verb, but some other argument. Only cases where the remnant was clearly a modifier were excluded, as these may well be treated as VP-ellipsis, the modifier being outside the VP.

Table 1: English Pseudogapping data

CONTEXT	SUBTYPE	N	*%*
Comparison	comparative	72	
	as	90	
	like	26	
	the way/the manner	5	
	the same	4	
Total comparison		197	87
Discourse		10	4
Coordination	but	7	
	and	3	
Total coordination		10	4
Other	before	4	
	if ..then	2	
	relative clause	1	
	though	3	
Total other		10	4
Total		227	99

No effort was made to distinguish American from British usage, or older texts from more recent one, as the data collection was considered to be too small for any more elaborate comparisons. For older stages of English, see also the discussion in Visser (1963).

The gapping data that I collected are presented in Table 2 below. They are divided into 253 examples from (British and American) English and 318 examples from Dutch. As much as possible, I have kept the same classification of contexts as I used for pseudogapping. Asyndetic coordination involving commas or semicolons are given as separate categories, although the choice among these two punctuation marks is somewhat arbitrary and haphazard. The reader is urged to compare Tables 1 and 2.

Table 2: English /Dutch Gapping data

CONTEXT	SUBTYPE	ENGLISH	%	DUTCH	%
Coordination	and	139	55	146	45
	,	52	21	99	31
	;	16	6	8	2
	-	1	0.5	-	-
	but	7	3	14	4
	and not[22]	3	1	-	-
	, not	2	1	-	-
	or	9	4	4	1
	nor	3	1	1	0,3
	parenthetical	2	1	-	-
Total coordination		234	93	272	85
Comparison	comparative	9	4	12	4
	as .. as	3	1	9	3
	as/like	2	1	5	2
Total comparison		14	6	26	8
Discourse		5	2	22	7
Other	if not	1	0.3	-	-
	instead of	-	-	1	0,3
	if .. then	-	-	1	0,3
Total Other		1	0.3	2	0.6
Total		253		322	

A number of things are noteworthy in these tables. First of all, the same contextual categories recur, in particular coordination and comparison. Discourse level examples can also be found, but they are relatively rare. Some examples are given in (27), for pseudogapping, and in (28), for gapping:

(27)   a.   "That name must certainly propitiate the abstinent gods."
             - "At least it does Father Hart."[23]
        b.   Does that annoy you? It would me.[24]

(28)   a.   I can place any man within six miles. I can place him within two miles in
             London. Sometimes within two streets.[25]
        b.   Heb ik ooit een van jullie belazerd? Jullie ooit mij?[26]   [Dutch]
             Have I ever one of you cheated? You ever me?

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[22] I have treated *and not* as well as *, not* as complex connectives. The alternative would be to view *not* as a remnant and the connectives as simplex. While the latter analysis is more attractive a priori, it leaves us with a problem of word order: in sentences such as *your kin depend on you and not you on them* (from Ellis Peters, *The Rose Rent,* p 18), the position of *not* is one that is illicit in the presence of a verb: **your kin depend on you and not you depend on them.* Treating *not* as a gapping remnant here would then require us to postulate an ill-formed underlying structure for the ellipsis, whereas treating *and not* and *, not* as complex connectives does not require any such assumption. The matter is one that deserves further study.

[23] Elizabeth George, *A great deliverance*, p. 113.

[24] Nancy S. Levin, *Main Verb Ellipsis in Spoken English*, p 77.

[25] G.B. Shaw, *Pygmalion*, act 1.

[26] J.M.A. Biesheuvel, *In de bovenkooi*, p 96.

In Dutch, there appear to be more discourse level cases of gapping than in English. This is very likely due to the competition of VP-ellipsis in English. Dutch question-answer pairs such as those in (29) are fairly common. In English, these would most frequently correspond to VP-ellipsis cases as in the translation. Dutch, however, does not have VP-ellipsis, and will therefore be more likely to use gapping to avoid redundancy in answers.

(29)   Q: Wie gaat er mee?
                who goes there along
                "Who is coming along?"
        A: Ik niet.
                I not
                "I'm not"

Of further note are the differences among all these similarities. Quite obvious in these data is the familiar observation that comparison-like contexts are preferred for pseudogapping, and coordination for gapping. Equally interesting is the fact that among coordinators, pseudo-gapping prefers the contrastive marker *but* (in Dutch: *maar*), while gapping shows an over-whelming preference for coordination with *and*, or asyndetic coordination involving a comma or semicolon in written language. *But* is grammatical, but not at all very common, and neither is disjunction by *or,* or by *nor.* I believe these two observations are linked, and that a preference for comparison and *but* shows a strong specialization for the rhetorical relation of *contrast* in pseudogapping (cf. Kehler 2000 for more discussion of the role of rhetorical relations in the resolution of ellipsis). Levin also found a preference for polarity contrast, in particular for a negative conjunct followed by a positive one. I have found this preference in my data as well, but I lack sufficient data of the relevant kind to show this reliably, as this point.

To summarize: In this section, I have compared corpus data for pseudogapping with corpus data for gapping in Dutch and English. While both gapping and pseudogapping occur in contexts of coordination and comparison, pseudogapping prefers comparison, and gapping regular coordination. The pseudogapping data confirm earlier observations by Levin (1980), but are based on a larger sample, whereas the comparison with naturally-occurring gapping data is new.

5. Acceptability judgments: Survey Data

5.1. Introduction

The general preference for comparison-like structures in the construction of pseudogapping sentences is also obvious from an informant survey that I conducted. The original motivation for the questionnaire was an observation in Hoeksema (1991) that in complex-predicate structures there is an asymmetry between the object of the complex predicate and any non-object complements. In particular, it was found that sentences such as

(30)   She found her CO-WORKER more attractive than she did her HUSBAND.

were somewhat better than sentences such as (31) below in spite of the fact that the missing material in (30) corresponds to a discontinuous string, whereas the material elided in (31) corresponds to a continuous string.

(31)   ?She found her co-worker more ATTRACTVE than she did INTERESTING.

Under the analysis presented in Hoeksema (1991) (which has a long pedigree, going back to Chomsky 1955 (published 1975), Bach (1979, 1980) and Jacobson (1987), to mention just some authors), this makes good sense, because *find attractive* is treated as a complex predicate and *find her husband* is not. In addition, it was suggested by David Dowty (p.c.) that for people who accept (31), there might still be a difference of a similar kind in coordination-like contexts, such that such speakers, while accepting (32), would reject (33):[27]

(32)   She found her co-worker attractive but she didn't her husband.
(33)   ??She found her co-worker attractive but she didn't interesting.

The difference between (30) and (31), or that between (32) and (33), we might call the constituency effect. The difference between (30) and (32), or that between (31) and (33), we might call the context effect: comparative-like contexts appear to be favoured over coordination-like contexts. From recent work on acceptability data involving, among other things, gapping, from Frank Keller and Antonella Sorace at the University of Edinburgh (Keller 2000, Sorace and Keller 2005), it has become clear that such effects can be cumulative, in the sense that a double violation is judged worse than a single one. For that reason, I decided to use a ten-point scale, so as to force the respondents to make subtle judgments. I did not use the method of magnitude estimation (Bard et al. 1996, Cowart 1997), although I am aware that this method would likewise yield the fine-grained judgments needed for the present purposes. However, magnitude estimation requires some training, and there was not enough time to do that. The questionnaire was handed out in a number of introductory syntax classes; in addition, some colleagues were given the same questionnaire to fill out.

5.2 Participants

42 undergraduate students from Swarthmore College, all but one native speakers of American English, and one native speaker of British English. Non-native speakers were removed from the participant pool. In addition, 8 professional linguists, all native speakers of American English, filled out the questionnaire. Nobody reported any problems with the task.

5.3. Materials

Participants were given a list of 15 sentences, with instructions to judge them on a scale from 1 [bad] to 10 [perfect]. Every participant was given the same list. See Appendix A. Sentences had either comparison contexts or coordination/discourse contexts, and either direct object remnants or predicate remnants. The prediction, based on earlier work by Levin (1980), and the corpus study described in section 4, was that both the context and the remnant variable would have an effect on judgments. The prediction was that comparison contexts are preferred to coordination/discourse contexts, and that direct objects are preferred as remnants to predicate nominals. The material also contains cases of complex as well as simple predications (e.g. *make happy* versus *like*), but this difference turned out not to matter for the judgments given.

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[27] It is interesting to note that virtually none of the 50 informants in the questionnaire experiment described below actually treated coordination contexts as completely on a par with comparatives. While there was considerable variation in the judgments, almost everybody found comparatives to be a better context than coordination or discourse contexts. Only informant #45 comes very close to a very general acceptance of all contexts and remnant types, cf. Appendix B.

5.4. Results

The main results are presented in Table 3 below, where A stands for Average and SD for Standard Deviation. The full data are to be found in Appendix B.

Table 3: Test scores for 15 sentences

#	Example	A	SD
1	Mary made as many WOMEN happy as she did MEN	8.9	1.3
2	Jackie likes the SALESMAN, but she doesn't the STOCKBROKER	5.3	2.9
3	The neighbours like CATS more than they do DOGS.	8.5	1.7
4	Janice never kissed her HUSBAND the way she did her LOVER.	8.3	2.2
5	Bob called YOU a moron. He didn't ME.	3.5	2.8
6	The boys saw as many FERRARIS as they did TOYOTAS.	8.6	2.4
7	Your cleaning lady may have kept YOUR house clean, but she didn't MINE.	5.4	3.0
8	Fred finds more WOMEN attractive than he does MEN.	8.4	1.9
9	The boss doesn't consider YOU important the way he does the new SECRETARY.	7.7	2.1
10	Fred understood HER point. She didn't HIS.	4.1	2.9
11	Let's make as many people HAPPY as we do UNHAPPY.	6.7	2.8
12	Jackie finds the salesman CLEVER, but she doesn't ATTRACTIVE.	1.9	1.4
13	Ned gave his friends more AFFECTION than he did TIME.	7.2	2.8
14	You can't get Mary MAD the way you did DRUNK.	2.1	1.6
15	John would make her a good HUSBAND. He did a good BOYFRIEND, didn't he?	2.1	1.7

By pooling the scores for the various types of examples, it is not hard to show the presence of cumulative effects. Predicate remnants in complex-predicate constructions (category IV in Table 4 below) are systematically evaluated as less acceptable than direct object remnants (categories I and II in Table 4). Comparison-like environments (categories I, III) are preferred to coordinative contexts or discourse contexts (categories II and IV). Examples with dispreferred remnants as well as dispreferred contexts (category IV) are significantly worse than examples with just a dispreferred remnant or just a dispreferred context (categories II and III). The best types of examples are the ones with direct object remnants in comparison-like contexts (category I), and these receive an average score of 8.4. The examples with either dispreferred context (category II) or dispreferred remnant (category III) get an average score of 4.6 and 4.4, respectively. Finally, the examples with dispreferred remnants as well as dispreferred contexts (category IV) get an average score of 2.

Table 4: Cumulative effects

	Type of example	Examples	Average score
I	Direct object remnant, Comparison	1, 3, 4, 6, 8, 9	8.4
II	Direct object remnant, Coordination/discourse	2, 5, 7, 10	4.6
III	Predicate remnant, comparison[28]	11, 14	4.4
IV	Predicate remnant, coordination/discourse	12, 15	2

5.5 Statistical analysis

The scores were divided into 4 groups, I-IV, group I consisting of sentences 1,3,4,6,8 and 9, group II of sentences 2,5,7,10, group III of sentences 11 and 14 and group IV of sentences 12 and 15 respectively. For each participant, the average score for each group of sentences was calculated, and paired t-tests by subjects were performed, using SPSS, to compare I and II, II and III, III and IV and II and IV, respectively. For the pair I, II t=10.144, p<0.001; for the pair II, III t=0.511, p=0.611; for the pair III, IV t=10.6, p<0.001 and for II, IV t=9.5, p<0.001. In other words, only the difference between groups II and III is not significant. All other group differences were highly significant.

5.6. Conclusions

As noted by Levin (1980) and others, predicate nominals are dispreferred as pseudogapping remnants. That such remnants are not fully ungrammatical, is shown by the fact that they get worse in non-optimal contexts, such as coordination or discourse contexts. It was likewise found that comparison contexts are preferred over regular coordination contexts or discourse contexts. This squares well with our corpus findings in section 4. The effects of remnant type and context are similar in size and cumulative: pseudogapping with dispreferred remnants in dispreferred contexts is significantly worse than pseudogapping with dispreferred remnants in preferred contexts, or pseudogapping with preferred remnants in dispreferred contexts.

6. In conclusion

In this paper, I have argued that pseudogapping is best viewed as a separate syntactic construction of English, and that it cannot be reduced entirely to VP-ellipsis, in spite of some remarkable similarities. In some respects, pseudogapping shows similarities with gapping rather than VP-ellipsis, such as a general preference for coordinative and comparative contexts. However, within this set of contexts, the preferences exhibited by pseudogapping differ strongly from those exhibited by gapping. Gapping prefers contexts which impose a strong parallelism, and pseudogapping contexts which impose a contrast. Corpus data and a survey of introspective judgments were used to show that pseudogapping prefers comparative over coordinative contexts and direct objects as remnants over predicates as remnants. The effects of context and remnant type, moreover, were shown to be cumulative in the evaluation of pseudogapping sentences, in the sense that structures showing dispreferred contexts as well as

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[28] It is a pity, in hindsight, that not more examples like 11 and 14 were used, given that the scores for the two sentences are quite far apart. It is very likely that there is another factor, as yet undiscovered, that sets the two examples so far apart. Perhaps the connective *the way* is not as good as other comparative-like connectives. Scores for 11 and 13 are more similar than scores for 11 and 14, suggesting that here the type of environment may be more important than the type of remnant. Clearly, more study is needed.

dispreferred remnants were evaluated as significantly worse than structures showing only a single dispreferred element.

Appendix A: Materials

The questionnaire that was given to the participants:

Mary made as many WOMEN happy as she did MEN.	
Jackie likes the SALESMAN, but she doesn't the STOCKBROKER.	
The neighbors like CATS more than they do DOGS.	
Janice never kissed her HUSBAND the way she did her LOVER	
Bob called YOU a moron. He didn't ME.	
The boys saw as many FERRARIS as they did TOYOTAS.	
Your cleaning lady may have kept YOUR house clean, but she didn't MINE.	
Fred finds more WOMEN attractive than he does MEN.	
The boss doesn't consider YOU important the way he does the new SECRETARY.	
Fred understood HER point. She didn't HIS.	
Let's make as many people HAPPY as we do UNHAPPY.	
Jackie finds the salesman CLEVER, but she doesn't ATTRACTIVE.	
Ned gave his friends more AFFECTION than he did TIME.	
You can't get Mary MAD the way you did DRUNK.	
John would make her a good HUSBAND. He did a good BOYFRIEND, didn't he?	

DEAR PARTICIPANT, PLEASE JUDGE THE FOLLOWING EXAMPLES ON THEIR ACCEPTABILITY ON A SCALE FROM 1 (COMPLETELY OUT OF THE QUESTION) TO 10 (PERFECTLY OK).

THANKS A LOT!

Appendix B: Results

(Each row represents one respondent, each column one sentence, example 1 being the first column, example 2 the second, etc.)

9	7	9	8	4	9	7	5	8	7	7	4	8	4	4
9	3	10	9	3	9	5	9	7	2	3	2	8	2	2
10	5	10	10	1	10	9	10	10	1	1	1	5	2	1
7,5	2	8	7	3	7	4,5	9	7	4	5	1	8	1	1
10	5	10	10	3	10	6	10	10	10	5	1	10	2	1
9	8	10	9	6	9	7	10	5	5	7	1	5	1	1
10	3	10	10	1	10	1	10	10	1	10	1	10	1	1
10	10	10	10	1	10	2	10	10	9	10	1	10	6	4
10	4	6	10	4	10	4	9	9	4	6	4	4	3	5
6	5	9	10	1	10	7	10	9	8	10	4	9	1	1
10	2	10	3	3	10	2	10	10	2	8	2	10	2	2
8	10	6	10	1	7	10	7	10	3	2	1	10	4	2
8	2	10	10	2	10	2	10	10	5	8	2	10	2	2
10	3	10	10	2	10	6	10	10	5	10	1	10	1	1
10	4	8	8	3	10	4	8	3	4	9	2	2	1	1
9	6	9	9	5	9	6	8	9	7	8	5	9	7	4
8	10	9	10	1	10	2	10	8	1	10	2	10	3	2
10	2	9	9	2	10	2	9	9	2	5	1	8	1	1
10	8	8	10	5	9	10	8	5	2	8	1	7	1	2
8	5	8	8	4	9	6	7	6	3	6	4	7	3	3
10	1	7	8	1	10	7	8	8	1	10	1	3	1	1
8	6	7	7	10	8	10	9	10	4	5	2	3	1	1
10	1	10	10	1	10	1	10	8	1	1	1	10	1	1
9	9	9	8	6	8	7	6	8	7	5	4	8	3	2
9	6	9	9	4	9	5	7	8	4	6	2	9	3	2
6	6	4	3	1	2	1	5	5	5	4	1	5	1	1
10	10	10	10	5	10	5	10	6	2	10	1	5	1	1
8	2	5	3	10	2	10	8	7	6	6	5	2	6	5
8	10	5	10	1	8	3	10	9	1	8	1	10	1	1
9	2	9	9	3	10	8	10	7	1	9	2	8	1	1
9	10	10	10	1	10	2	9	8	3	9	1	10	7	4
10	10	10	10	2	10	2	3	10	2	2	1	2	1	1
10	2	10	10	2	10	3	10	10	3	9	1	5	1	1
10	3	10	7	1	10	1	10	3	1	3	1	10	1	1
10	5	10	10	5	1	5	5	5	1	5	1	10	1	5
7	1	6	10	1	6	1	10	5	1	2	1	10	1	1
10	7	10	10	3	10	7	10	10	3	10	1	7	3	3
9	7	7	7	2	7	2	5	7	2	2	2	4	2	2
10	6	7	3	1	10	6	5	7	1	8	1	3	1	2
10	6	7	3	1	10	6	5	7	1	8	1	3	1	1
10	5	10	10	8	10	6	10	10	10	5	1	10	2	1
10	8	7	10	5	10	9	10	6	7	10	6	10	1	1
6	4	7	8	2	8	10	10	5	2	2	1	5	1	1
5	4	7	6	9	3	10	5	3	8	10	1	5	1	3
10	10	5	7	6	10	10	10	10	10	10	6	10	5	10
8	7	8	7	10	7	10	8	6	10	7	1	8	1	1
8	3	8	5	9	3	10	8	9	9	8	2	3	3	1
7	2	10	7	1	10	5	8	7	2	8	1	10	2	2
9	8	10	10	8	10	5	10	9	7	7	4	5	3	5
10	2	10	10	1	10	2	7	9	3	9	1	5	1	1

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