EXPLETIVE PASSIVES AND THE V-TO-I PARAMETER*

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In this paper I discuss the nature of the locality conditions on expletive replacement (in the sense of Chomsky 1986a) and predicate raising (in the sense of Moro 1990), especially in the context of expletive passives. I will argue that certain differences between English and Dutch expletive passives can be made to follow from the assumption that in Dutch, but not in English, the Verb raises to a functional head ("V-to-I"), which in turn gives rise to further raising of the inflected verb to the Auxiliary ("V-to-V"), removing a barrier along the way. This makes it possible to create an expletive chain licensing a postverbal NP at S-structure in Dutch. Following Moro (1990), I will assume that expletive constructions in English are best represented as predicate raising structures. I argue that predicate raising is subject to less severe locality conditions than expletive replacement. Still, the lack of V-to-I and V-to-V at S-structure in English will make it impossible to raise predicates out of the complement of passive verbs, ultimately because the postverbal NP cannot be associated with Case.

1.   Expletive passives

Consider the following sentences from Dutch (1) and English (2).

(1)   Er   werd   een man gearresteerd
       there became a   man arrested
       "*There was arrested a man"

(2)   *There was arrested a man

These passive constructions contain an expletive in the structural subject position. Hence, I will call them *expletive passives* (following Vikner 1990). Expletive passives are grammatical in Dutch, and ungrammatical in English, the major fact to be explained in this paper.

2.   Expletive replacement

In the past, much research on expletive constructions has been guided by the intuition that the expletive and the postverbal NP (the *associate*) entertain a specific relation (Safir 1982, Reuland 1985, Chomsky 1986a), brought to light by a definiteness requirement on the associate (Milsark 1974). See the ungrammatical sentence in (3) (cf. (1)).

(3)   *Er   werd   de man gearresteerd
      there became the man arrested

Safir (1982) defends the view that the expletive and the
associate have to be related because the associate, an NP,
needs Case in view of the Case Filter (Chomsky 1981):

(4)   *Case Filter*
      *[NP] if [NP] has no Case

If the associate is in a chain with the expletive, it may
inherit the Nominative Case assigned to the expletive in the
structural subject position. On the other hand, Reuland (1985)
and Chomsky (1986a) argue that the expletive and the associate
must be related because the latter has to replace the former
at LF in order to create a licit LF-configuration. Following
Chomsky on this, this point of view rests on the assumption
that an expletive is a meaningless element, freely inserted at
S-structure, and that no meaningless elements can survive at
LF (the principle of *Full Interpretation*), and hence the
associate must move to the expletive at LF and replace it.[1]
This movement leaves a trace, and general conditions on empty
categories require that this trace be licensed by its
antecedent, which is only possible if the movement is
sufficiently local. I will return to this locality condition
in greater detail below. The LF-movement to replace the
expletive creates a chain, which the following *Chain Condition*
applies to:

(5)   *Chain Condition*
      In an A-chain C = {a,...,x,...b}, where a is the head of
      C, and b is the foot of C, and x is any intermediate
      position in C, a must be Case-marked and b must be
      theta-marked, and x must be neither Case-marked nor
      theta-marked.

(6)   An A-chain is a chain headed in an A-position

Returning now to the sentences in (1-2), we find that the
expletive must be in an A-position and must be Case-marked,
and that the associate must be in a theta-position. All this
appears to be true in both (1) and (2). The expletive is in
the structural subject position, an A-position by standard
definitions, and is or can be assigned Nominative Case. The
associate appears to be in a theta-position in both (1) and
(2). Notice that the associate precedes the participle in (1)
and follows the participle in (2), in accordance with the fact
that Dutch is an SOV language (with the verb assigning an
internal theta-role to the left) and English an SVO-language
(with the verb assigning an internal theta-role to the right).

It remains to determine whether or not the expletive and the
associate are in a sufficiently local relation in both (1) and
(2). I will argue below, that this is the case only in (1).
Notice, however, that ordinary passive constructions are

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[1]Or adjoin to it, as proposed in Chomsky (1989).

grammatical in both Dutch and English:

(7)
a.   dat Jan t gearresteerd werd
      that Jan   arrested   became
      "that Jan was arrested"
b.   John was arrested t

The sentences in (7) form an exact parallel to the sentences
in (1-2), with the derived subject and the trace in (7) taking
the positions of the expletive and the associate in (1-2),
respectively. The A-chain $\{John,t\}$ in (7b) is obviously well-
formed, apparently also with respect to the relevant locality
conditions. We would, therefore, expect this also to be true
for the chain $\{John,t\}$ resulting from expletive replacement at
LF in (2). Yet, I will argue below that this is not the case.
However, things are more complicated than this. There are
reasons to assume that expletives in English are not easily
comparable to expletives in Dutch. In particular, it appears
to be the case that English expletives are really raised small
clause predicates, whereas expletives in Dutch can be either
raised predicates or true expletives.

3.   Expletives as raised predicates

The theory that expletives are raised predicates has emerged
in the recent past in work by Moro (1990) and Hoekstra &
Mulder (1990). Moro notes that in expletive constructions in
English the verb must either be ergative or, if unergative, be
accompanied by a locative which, according to Hoekstra &
Mulder, has the effect of turning the unergative construction
into an ergative one.[2] Examples are given in (8) and (9).

(8)   There were several girls (on the beach)

(9)
a.   There walked several girls *(into the room)
b.   *There bought a man a house

The restriction to ergative verbs or ergative constructions
suggests that in expletive constructions in English no
external theta-role is assigned and that some category, in
this case the expletive, must have been raised to the
structural subject position. In this view, the expletive is to
be compared to the locative PP in so-called Locative Inversion
constructions, exemplified in (10).

(10)
a.   On the beach were several girls
b.   Into the room walked several girls

Hoekstra & Mulder argue that the PPs in (10) are in the
structural subject position, and originate in a postverbal
position as predicates of a small clause with the postverbal

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[2]This does not apply to expletive constructions containing be
with a progressive.

NP as subject. The PPs are assigned Nominative Case which is passed on to the postverbal NP through the PP-trace. Preposing of *there* in (8-9) has the same effect.[3] The structure of the grammatical sentences in (8-10) can be represented as in (11).

(11) [IP there/PP [VP V [SC NP t]]]

On the basis of these observations, Moro suggests that the free expletive insertion and expletive replacement at LF proposed in Chomsky (1986a) are non-existent.

However, as Hoekstra & Mulder note, Moro's findings can not be generalized to all languages, on account of the fact that in Dutch, expletive constructions are not restricted to ergative verbs or ergative constructions. Thus, the following sentences of Dutch are grammatical.

(12)
a.   Er   liepen verschillende meisjes (op het strand)
      there walked several   girls   on the beach
b.   Er   kocht een man een huis
      there bought a   man a   house

Thus it seems that at least for Dutch the notion 'free' (i.e. non-raised) expletive must be maintained (cf. Bennis 1986). For these constructions, the expletive replacement theory still seems to be the most highly developed one.

On the other hand, facts from Dutch also present striking confirmation of the expletive raising theory.[4] PPs that function as Small Clause predicates cannot be extraposed (contrary to adjunct PPs).

(13)
a.   Jan zei dat zijn artikel vandaag [in de krant] stond
      Jan said that his article today   in the paper stood
      "Jan said that his article was in the newspaper today"
b.   *Jan zei dat zijn artikel vandaag stond [in de krant]

But if (13) is turned into an expletive construction, the PP-extraposition is grammatical.

(14)
a.   Jan zei dat er   vandaag een artikel van hem [in de
      krant] stond
      Jan said that there today   an article of him in the
      paper stood
      "Jan said that an article of his was in the newspaper
      today"

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[3]When a locative PP is present in an expletive construction, such as in there walked a man into the room, it must be assumed that this locative PP is not the predicate of the Small Clause, but construed with the predicate (the expletive) in some way, licensing it.

[4]Thanks to René Mulder for pointing this out to me.

b.   Jan zei dat er vandaag een artikel van hem stond [in de
       krant]

Since extraposition of Small Clause predicates is impossible,
in de krant in (14b) must be an adjunct PP. Hence the only
candidate for being the Small Clause predicate in (14b) is the
expletive *er*.

More facts support this conjecture. First, in (14b), the
indefinite NP cannot be scrambled, which it can be in (14a).

(15)
a.   Jan zei dat er   een artikel van hem vandaag [in de
       krant] stond
       Jan said that there an article of him today   in the
       paper stood
b.   *Jan zei dat er een artikel van hem vandaag stond [in de
       krant]

The same is true of the Locative Inversion variant of (14):

(16)
a.   Jan zei dat [in de krant] vandaag een artikel van hem
       stond
       Jan said that in the paper today an article of him
       stood
b.   *Jan zei dat [in de krant] een artikel van hem vandaag
       stond

The parallel of (15) with (16) suggests that *er* in (15) be
treated on a par with *in de krant* in (16), hence, as a raised
predicate.

Secondly, consider the following facts from Williams (1984).

(17)
a.   Many men are in the garden (2x)
b.   There are many men in the garden (1x)

(17a) has both a proportional reading ('a great percentage <u>of
the men</u>') and an existential reading ('a great number <u>of
men</u>'), (17b) has only the existential reading. The Dutch
counterparts to the sentences in (17) are both ambiguous
between a proportional and an existential reading.

(18)
a.   Veel mensen zijn in de tuin (2x)
       many people are in the garden
b.   Er zijn veel mensen in de tuin (2x)

This is as expected, if the restriction on the readings in
(17b) is due to the status of the expletive as a raised
predicate, as argued by Moro, and if in Dutch the expletive is
not necessarily a raised predicate. We predict then that the
pattern in (17) will show up in Dutch as well, provided the
expletive is unambiguously a raised predicate, i.e. if the
locative PP is extraposed. This is exactly what we find:

(19)
a.   dat er veel mensen in de tuin zijn (2x)
b.   dat er veel mensen zijn in de tuin (1x)

(19b) quite clearly has only the existential reading.[5]

These facts strongly suggest that whereas in English *there* is always a raised predicate, in Dutch *er* may always be either a raised predicate or a freely inserted expletive. Naturally, we would want this state of affairs to follow from something more deep. Specifically, we must explain why the English expletive can never be a freely inserted expletive, since the facts from Dutch tell us that this strategy is available to the language learner.

4.   Locality Conditions on Expletive Replacement and Predicate Raising

Let us assume that both the Expletive Replacement theory of Chomsky (1986a) and the there-raising account of Moro (1990) are correct and that both strategies are in principle available to the language user.[6] We must then determine what locality conditions apply to chains that derive from expletive replacement and to chains that derive from there-raising.

Expletive Replacement leaves behind a trace which is subject to the ECP.

(20) *ECP*
      empty categories must be properly governed

(21) *Proper Government*
      an element is properly governed if it is antecedent-

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[5]Thanks to Helen de Hoop for discussing these facts with me. De Hoop also suggests the following semantic explanation: for a proportional reading a strong contrastive predicate is required. Because of the extraposition the PP is an adjunct and not a part of the predicate, hence the requirement is not met. This accords well with the idea that the expletive is a raised predicate in these cases, an expletive by definition not being able to contribute to a strong contrastive predicate.

[6]I ignore Chomsky's revision of this theory in Chomsky (1989). The revision entails that expletives are no longer replaced but adjoined to at LF. This revision seems to have been necessitated by the observation that expletives are relevant for interpretation, given the different readings of many men are in the garden and there are many men in the garden. If Moro (1990) is correct, this difference follows from there-raising. The absence of the difference in reading in Dutch in those cases where the expletive is freely inserted corroborates Chomsky's earlier idea that (true) expletives are meaningless elements.

governed (or head governed)[7]

(23) *Government*
      <u>a</u> governs <u>b</u> iff <u>a</u> m-commands <u>b</u> and there is no <u>c</u>, <u>c</u> a
      barrier for <u>b</u>

The important thing here is to determine what constitutes a
barrier. Let us assume that every maximal projection is in
principle a barrier, but that barrierhood can be circumvented
in a number of ways:

(24)
A maximal projection <u>a</u> is a barrier for <u>b</u> unless
a.   <u>a</u> is L-marked
b.   <u>b</u> is adjoined to <u>a</u>
(Chomsky 1986b)

L-marking is theta-government by a lexical head. INFL is not
considered a lexical head, unless it is lexicalized by V-to-I
movement (Chomsky 1986b, 1989). Auxiliaries are not L-markers
(Chomsky 1986b:73), unless Incorporation of the Verb into the
Auxiliary has taken place.[8] *Adjunction* is allowed only in the
case of movement to an A'-position. Movement from an A'-
position created by adjunction back to an A-position is
considered "improper" (Chomsky 1986b).

There-raising leaves behind a trace which arguably must be
properly governed as well. I will assume that *there*-raising is
movement to an A-position.[9]

If all this is correct, one would expect the same locality
conditions to apply to expletive replacement and predicate
raising. This seems to be a desirable result w.r.t.
constructions like the one in (25).

(25) There was a boy

(25) has in principle two derivations, one involving expletive
replacement (26a), and another one involving predicate raising
(26b).

(26)

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[7]Chomsky (1986b) suggests that proper government for A-chains
reduces to antecedent government, which I tentatively adopt.

[8]This reduces to V-to-I movement if Auxiliaries are in INFL,
but to V-to-V movement if they are VP-heads, as argued by
Guéron & Hoekstra (1988).

[9]Moro (1990) assumes that predicate raising is A'-movement, but
I will not follow him here, since I don't share Moro's
definition of A-position (i.e. as a position in which a theta-
role can be assigned). Recent developments suggest that
positions in which Case is assigned (by Spec-Head Agreement)
ought to be included in the set of A-positions (Chomsky 1989,
cf. also Rizzi 1991).

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a.    [IP There [VP was [a boy]]]
b.    [IP There [VP was [SC [a boy] t ]]]
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We have to exclude derivation (26a) in view of the fact that sentences like (25) only have an existential reading. We can exclude (26a) in two ways, either by assuming that VP is a barrier, or by assuming that the copula requires the presence of a Small Clause. Notice that VP in (26b) cannot be a barrier or else (26b) would be excluded as well, and we would expect the sentence to be ungrammatical. So either we stipulate that the copula obligatorily selects a small clause, and we maintain that VP is not a barrier in either derivation of (26a), or we introduce a difference between (26a) and (26b) in that VP is a barrier in (26a), but not in (26b).

The following sentence seems to decide in favor of the latter option.

(27) There was a boy in the garden

Again, two derivations are possible:

(28)
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a.    [IP there [VP was [SC [a boy] [in the garden] ]]]
b.    [IP there [VP was [SC [a boy] t ] [in the garden] ]]
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Again, the derivation involving expletive replacement (28a) must be excluded (cf. (17)). Here we have no other choice than to assume that VP is a barrier. On the other hand, the derivation in (28b) must be ruled in. Therefore VP cannot be a barrier in this case.

Let us embrace the anomaly instead of succumbing to it. This entails that the status of VP is made relative to the kind of local relation involved, in the following manner:

(29)
a.   VP is a barrier for expletive replacement
b.   VP is not a barrier for predicate raising

The generalization (29), whose theoretical motivation awaits further study, has one immediate favorable consequence. We can now account for the fact that some languages (notably English) categorially lack expletive replacement, while others (Dutch) have both expletive replacement and predicate raising. Since Dutch is a V-to-I language, the VP-barrier is always removed, so that expletive replacement is allowed.[10]

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[10]There are reasons to assume that V-to-I is limited to root clauses in Dutch, that is, that INFL is to the left of the VP (contra Den Besten 1990 and earlier work). If so, the analysis of V-movement in Dutch must be supplemented by a mechanism of licensing certain syntactic features that INFL hosts, for example as proposed by Travis (1986), who proposes that COMP licenses these features in embedded clauses. We may conjecture that licensing the features of INFL by COMP is sufficient to turn INFL into an L-marker in the same way licensing these

The following facts now fall into place as well:

(30)
a.   *There walked a man
b.   There walked a man into the room
c.   Into the room walked a man

Since (30a) is ungrammatical, it must have neither an expletive replacement derivation, nor a predicate raising derivation. The expletive replacement derivation is excluded because VP is a barrier by (29a). As expected, the Dutch counterpart of (30a) is grammatical (cf. (12a)).[11] How can the predicate raising analysis of (30a) be excluded (cf. (31))?

(31) [IP there [VP walked [SC [a man] t]]]

By (29b) VP cannot be the barrier excluding the derivation (31), therefore the barrier must be further down. Let us assume that SC provides the barrier. As is well known, unergatives like *walk* select, thus theta-govern, thus L-mark, only small clauses with locational predicates (Hoekstra & Mulder 1990). The obligatory presence of a locational, albeit adjunct, PP suggests that the predicate *there* itself is not enough to turn the small clause into a locational small clause. Thus, SC is not L-marked in (31), which excludes the predicate raising derivation of (30a). By the same token a predicate raising derivation of (30b) is allowed, whereas the expletive replacement derivation is, again, blocked. Similarly for (30c), where the locative PP is not an adjunct, but the raised predicate itself.

One other problem concerning (29a) has to be adressed. Chomsky (1989) argues that although English may lack V-to-I movement at S-structure, it may very well have V-to-I movement at LF. Apparently, V-to-I movement is allowed by UG. In general, we may assume that everything that happens in one language at S-structure is allowed in another language at LF. The question then arises why expletive replacement is not allowed in English on account of the fact that the VP-barrier may be removed by V-to-I movement at LF. In other words, doesn't V-to-I movement at LF void (29a)?

Obviously, (29a) can only serve to exclude certain derivations with regard to S-structure conditions. The Case Filter seems the most appropriate candidate. In both expletive replacement and predicate raising constructions, the postverbal NP is dependent on the element in Spec,IP for Case.[12] In the former case, the postverbal NP can satisfy the Case Filter by virtue of its being in a chain with a Case marked head (Chomsky

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features by V-to-I movement is (cf. Zwart 1991).

[11]Moreover, a sentence like <u>er liepen veel mensen</u> appears to be ambiguous between an existential and a proportional reading.

[12]I ignore the possibility that some Case is assigned to the postverbal NP in situ.

1986a). In the latter case, the postverbal NP is Case-licensed through the trace of the raised predicate (Hoekstra & Mulder 1990). Focusing on expletive replacement constructions now, consider what happens if the associate is not related to the expletive at S-structure. The associate will not be in a Case-marked chain. Hence it will fail to satisfy the Case Filter. Moreover, by Chomsky's (1986a) Visibility Principle, non-Casemarked elements are not visible for the interpretive components LF and PF. Hence, an NP that is not Casemarked at S-structure will no longer be able to play a role at LF. For this reason, V-to-I movement at LF comes too late to save those derivations that (29a) was intended to exclude. Hence, the impossibility of expletive replacement in English is explained by (29).

Accepting this much, it is time to return to the contrast in (1) and (2). In order to be able to describe the structure of these sentences correctly, we must make a short digression on the structure of passives.

5.   Passives

Non-synthetic passives, such as we find in English and Dutch, consist of an Auxiliary and a past participle. The external argument of the past participle verb is suppressed, but probably present (cf. Roberts 1987). In addition, the past participle verb in passives is unable to assign Accusative Case, a circumstance which is probably related to the suppression of the external argument as suggested by Burzio (1981), the details of which do not interest us here.

Following Kayne (1988), I will assume that the past participle consists of a VP and an inflectional phrase headed by the past participle morphology, which I wil call the ppP. See (32).

(32) ... Aux ... [ppP ... <u>EN</u> ... [VP ... V ...]]

As always, the verbal and the inflectional head have to be combined at some level of representation. Let us start from the minimal assumption that in Dutch, but not in English, the verb moves to the functional head. That is to say, let us consider Dutch as a general V-to-I language, and English as a general I-to-V language, at least at S-structure. Thus at S-structure the Dutch passive has the structure in (33a), and the English passive has the structure in (33b).

(33)
a.   ... Aux ... [ppP ... V+<u>EN</u> ... [VP ... <u>t</u> ...]]
b.   ... Aux ... [ppP ... <u>t</u> ... [VP ... V+<u>EN</u> ...]]

Let us also, as before, assume that in English V-to-I may take place at LF.

This has the consequence that VP is a barrier at S-structure in English, but not in Dutch. How about ppP?

Above we have assumed that the Auxiliary does not L-mark its complement. Nevertheless there is a possibility that the <u>V+EN</u>

complex in Dutch moves to the Auxiliary and turns the newly
created complex into an L-marker for ppP. Notice that this
possibility is principally absent in English at S-structure,
because in English the V+EN complex is too far away from the
Auxiliary. The following is empirical evidence that this V-to-
V movement does exist in Dutch, but does not exist in English:

(34)
a.   ... te worden   (*beestachtig) vermoord
          to become(aux)   brutally   murdered(past
      participle)
b.   ... to be (brutally) murdered

The Auxiliary and the past participle are inseparable in Dutch
(34a), but not in English (34b).[13] It follows that ppP is a
barrier in English but not in Dutch.

Consider once again ordinary passives, as in (7), here
repeated as (35).

(35)
a.   dat Jan [ppP [VP t̲ t̲] t̲] gearresteerd+werd
      that Jan   arrested   became
      "that Jan was arrested"
b.   John was [ppP t̲ [VP arrested t̲]]

In the Dutch example (35a), the past participle verb has moved
to the head of the ppP, and the V+EN complex has moved to the
Auxiliary. As a result, neither VP nor ppP are barriers, and
Jan governs its trace in the direct object position of the
past participle verb, as desired. However in the English
example (35b) EN has moved to the past participle verb. As a
result, the V+EN complex cannot move to the Auxiliary, and
both VP and ppP are barriers. At S-structure, *John* cannot
govern its trace.

Why is (35b) not ungrammatical? Recall that the verb movements
of Dutch can be repeated at LF in English. Thus, both barriers
(VP and ppP) are removed at LF, and (35b) is grammatical at
LF. The derived subject can be related to its trace and
associated with a theta role at LF. The question therefore
becomes: are there any S-structure conditions that rule (35b)
out at S-structure, in particular, is the Case Filter violated
in (35b)? The only NP in (35b) is *John*, and *John* is assigned
Nominative Case in the Spec,IP. Therefore, (35b) is
grammatical for Case reasons at S-structure, and for the Theta
Criterion at LF. In this respect, (35b) differs from (26a) in
that in the former, but not in the latter, the NP is in a Case
Position. Thus (35b) is ruled in for the very reason that
(26a) is ruled out.

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[13]The Auxiliary and the past participle can be separated in
root clauses when the tensed verb moves by whatever causes the
verb second effect. This does not affect the argument,
however, since verbal clusters are known to be transparent for
verb second.

6.   Expletive passives (2)

Let us now return to the contrast in (1) and (2), here repeated in (36) and (37).

(36) er werd een man gearresteerd

(37) *there was arrested a man

In the Dutch sentence (36), V-to-I and V+I-to-V have taken placed at S-structure as described in section 5. Furthermore, the tensed Auxiliary undergoes another V-to-I movement, as an instance of Verb Second (see note...). As a result, no barriers intervene between the expletive in the Spec,IP and the associate in the direct object position in the embedded VP. Alternatively, in the predicate raising analysis, no barriers intervene between the raised predicate in Spec,IP and its trace in the position of small clause predicate. Therefore, the postverbal NP can satisfy the Case Filter, and the sentence is grammatical both at S-structure and at LF.[14]

However, in the English sentence (37) both the expletive replacement derivation (38a) and the predicate raising derivation (38b) have to be excluded.

(38)
a.   [IP there [VP was [ppP $\underline{t}$ [VP [arrested] a man]]]]
b.   [IP there [VP was [ppP $\underline{t}$ [VP [[arrested] [SC [a man] $\underline{t}$]]]]]]

The expletive replacement derivation (38a) is excluded as before, because both VPs are barriers by (29a). Furthermore, ppP is a barrier. The predicate raising derivation (38b) is excluded because ppP is a barrier. Furthermore, SC is probably a barrier as well. Recall that VP is not a barrier for predicate raising by (29b). Neither derivation can be repaired at LF, because the postverbal NP is not associated with Case and the sentences are ruled out at S-structure. Consequently, both derivations of (37) are excluded, a desired result.[15]

7.   Impersonal Passives

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[14]At LF, expletive replacement takes place in the expletive replacement analysis. This also prevents a Principle C violation. In the predciate raising analysis no Principle C violation occurs if we assume that the raised predicate and the subject of the small clause are not coindexed, in other words, that the index the subject of the small clause shares with its predicate is of a different type than the index that the raised predicate shares with its trace.

[15]The same account would correctly rule out (i). However, it is not clear why (ii) is not equally ungrammatical.

(i)   *there was put a book on the table
(ii) ?on the table was put a book

The contrast in (1) and (2) is repeated with unergative intransitive verbs, so-called *impersonal passives.*

(39) Er   werd   gedanst
     there   became danced
     "*There was danced"

(40) *There was danced

The analysis explaining the contrast in (1) and (2) can be generalized to the contrast in (39) and (40) if we accept the following hypothesis (following Sorin 1990):

(41) There are only unergative and unaccusative verbs

(41) implies that the class of unergative verbs need not be further split into transitives and intransitives. In other words: intransitives always have a (possibly empty) direct object, which can but need not be spelled out. This hypothesis has the advantage that verbs taking cognate objects (like in *to dance a waltz*) and verbs like *eat* that take or leave objects seemingly at will fall within the general pattern. [...]

If this is correct, the empty direct object must be regarded as the target for expletive replacement in the expletive replacement analysis, or as the subject of the small clause in the predicate raising analysis.

In the Dutch example (39) then, no problems arise. Because of the V-to-pp and the V+pp-to-V movement and the V-to-I movement of the Auxiliary as an instance of Verb Second, no barriers intervene between the empty object and the expletive. So expletive replacement can take place. As will become clear in a moment, this is the only acceptable derivation of (39).

In the English example (40), the two possible derivations have to be excluded again.

(42)
a.   [IP there [VP was [ppP t [VP danced e]]]]
b.   [IP there [VP was [ppP t [VP danced [SC e t]]]]]

Consider the expletive replacement derivation (42). This derivation is excluded for the same reason (38a) is: the VPs are barriers, as well as ppP. Consider next the predicate raising derivation (42b). Here, ppP is a barrier at S-structure. Consider finally the question whether or not these derivations can be repaired at LF. They cannot if we assume that the empty object needs Case. If we don't want to make this assumption, it may be the case that (42b) is excluded for the same reason the Dutch (15b) and (16b) are: the small clause has an empty head and an empty predicate. However, in that case it would remain unclear why the expletive replacement derivation cannot be repaired at LF. I leave this issue open for further study.

8.   Alternative expletive passive constructions

Next to (2), English has the grammatical alternative (43).

(43) There was a man arrested

(43) cannot get an expletive replacement analysis, because at least the matrix VP is a barrier by (29a). So the predicate raising derivation must be ruled in. Following Moro (1991), let us assume the folowing analysis for (43):

(44) [IP there [VP was [SC [[a man] [ppP t [VP arrested t]]] t]]]

In (44), the complex *a man arrested* is the subject of the small clause, which has as its predicate the trace of *there*. That constructions like *a man arrested* can be subjects has been well-known at least since Williams (1984). Thus the grammaticality of (44) reduces to the grammaticality of(26b).

Consider also the following, ungrammatical construction.

(45) *There seems a man to be arrested

Chomsky (1989) takes this as evidence that Case transmission through a chain doesn't exist (contra Safir 1982, Koster 1987). Let us take a look at this construction from our point of view.

Again, both the expletive replacement derivation and the predicate raising derivation must be excluded. The expletive replacement derivation is excluded as before by barrierhood of the matrix VP. The predicate raising derivation is not excluded per se, but if correct (with *a man to be arrested* as the subject of the small clause), (45) reduces to (46) which is ungrammatical for independent reasons, probably having to do with complement selection.

(46) *There seems a boy

Thus, there is no grammatical derivation for (45), independently of the issue of Case transmission through a chain. This is a welcome result, because it makes it possible to retain the relevance of chain formation to Case assignment, as originally proposed by Safir (1982) and implicit in Chomsky (1986a).

9.   Other languages

The analysis proposed here predicts that other V-to-I languages will behave like Dutch with respect to expletive passives and impersonal passives, even if they are SVO languages like English. This prediction is fully corroborated by the facts from Scandinavian languages. Consider the following data from Norwegian (Afarli 1989).

(47)
a.   det   vart sett ein mann
      there was seen a   man
b.   det   vart sunge

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          there was  sung
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However, the facts from French display a more variegated picture. Expletive passives are grammatical, as expected, but impersonal passives are only grammatical when accompanied by a locational PP (Hoekstra & Mulder 1990).

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(48)
a.    Il    a   été  mangé une pomme
      there has been eaten an  apple
b.    Il    a   été  tiré *(sur le  bateau)
      there has been shot   at  the boat
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Notice that a locational PP cannot save impersonal passives in English:

(49) *There was walked into the room

These facts will have to await further study.

10   Conclusion

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