Expletives as Features

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1. Introduction

Expletives have always been a central topic of theoretical debate and subject to different analyses within the different stages of the Principles and Parameter theory (see Chomsky 1981, 1986, 1995; Lasnik 1992, 1995; Frampton and Gutman 1997; among others). However, most analyses center on the question how to explain the behavior of expletives in A-chains (such as *there* in English or *Það* in Icelandic). No account relates *wh*-expletives (as one finds them in so-called partial *wh*-movement constructions in languages such as Hungarian, Romani, and German) to expletives in A-chains. In this paper, I argue that the framework of the Minimalist Program opens up the possibility of accounting for expletive-associate relations in A-/A'-chains in a unified manner. The main idea of the unitary analysis is that an expletive is an overtly realized feature bundle that is (sub)extracted from its associate DP. *There* in an expletive-associate chain is a moved D-feature which orginates inside the associate DP. Similarily, in A'-chains, the *wh*-expletive originates as a focus-/*wh*-feature in the *wh*-phrase with which it is associated. This analysis provides evidence for the feature-checking theory in Chomsky (1995). The paper is organized as follows. Section 2 contains the discussion of expletive *there*. In section 3 I suggest an analysis for *wh*-expletives, and I also explore whether this analysis can be extended to relations between X°-categories such as auxiliary and participle complexes.

2. Expletives in A-Chains

Consider the following typical properties of existential sentences. As shown in (1), in existential constructions the expletive *there* is related to an associate (the logical subject), which is a non specific indefinite NP. This semantic restriction on the associate is known as the "definiteness effect" (Milsark 1974).

(1)   [$_{TP}$ There are [$_{VP}$ several/*the cats in the backyard]]

Assuming the predicate-internal subject hypothesis, the associate in (1) receives its Θ-role inside VP. The expletive, on the other hand, lacks a Θ-role although it occurs in positions normally occupied by DPs/NPs.[1]

Furthermore, in expletive associate constructions overt subject agreement is with the associate and not with the expletive:

(2) There are/*is several cats in the backyard.

Analyses of existential sentences center on the following questions: i) Where does the expletive come from and what is its (syntactic) function? ii) How can we explain the distribution of Case and agreement in existential sentences? iii) How can the interpretational facts in expletive associate constructions be explained?

Most of the analyses of expletive associate constructions share the view that an answer to question i) is based on an analysis of the expletive as a meaningless syntactic dummy element that functions solely to fill the structural subject position, i.e. to satisfy the EPP. The idea is that the expletive and the associate NP seem to stand in a dependency relation with respect to Θ-role assignment and Case marking. How is this relationship between *there* and its associate expressed? If, for example, coindexation between expletive and associate is assumed, the associate should violate Principle C. However, (3a) is a grammatical sentence. In order to avoid this problem, Chomsky (1981) has argued that co-superscripting between expletive and associate is involved as opposed to co-subscripting, whereas Chomsky (1986) assumes an expletive replacement operation at LF as in (3b). Assuming Principle C to apply only at LF, the trace of the associate in (3b) is an anaphor at LF, satisfying Principle A (for different variants of the expletive-replacement analysis, see Chomsky 1986, Lasnik 1989, Groat 1995):

(3) a. *There* is a *man* in the garden
     b. *A man* is *t* in the garden

Several independent arguments have been proposed for expletive replacement in (3b). First, assuming that agreement is actually the result of a specifier head relation, the fact that number agreement is between the verb and the associate (1), is explained in terms of the expletive replacement analysis. Furthermore, the fact that the relation between expletive and its associate must be local, is easily explained under the expletive replacement

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1. *There* is excluded from Θ-positions, it only occurs with verbs that do not assign an external Θ-role such as existential *be*, raising and unaccusative verbs.
(i) *There heard a song/*He heard there.
(ii) *There snows.
In Chomsky (1981) (i)-(ii) are excluded by the Θ-criterion that prohibits non-arguments from occuring in Θ-positions (see also Chomsky 1986 for discussion).

hypothesis. For example, as shown in (4)-(5), movement of the associate *a man* to the position of *there* violates locality conditions (such as Principle A/the ECP) (Chomsky 1986, Lasnik 1995):

(4) a. * There seems that a man is in the garden
     b. * There *a man* seems that *t* is in the garden

(5) a. * There seems to a strange man that it is raining outside
     b. * There *a strange man* seems to *t* that it is raining outside

On the other hand, several arguments seem to show the contrary, i.e. that the associate does not undergo covert raising to the expletive position. One relevant observation concerns the fact that expletive associate constructions and their non-expletive counterparts are not necessarily semantically equivalent. This can be demonstrated with the sentences in (6):

(6) i. a. There is a man in the garden
         b. A man is in the garden
     ii. a. There are not many men in the garden
         b. Many men are not in the garden

(6i.b) is ambiguous with respect to a specific or non-specific reading of *a man*, whereas (6i.a) allows only a non-specific reading. In (6ii.b) *many* has wide or narrow scope with respect to *not*. On the other hand, (6ii.a) is unambiguous, the QP has only narrow scope, i.e. it cannot take scope over the negation. Given that expletive replacement would create identical LF-representations for the (a)- and (b)-examples, the difference in interpretation remains unexplained.[2] Another argument against expletive replacement was raised by the observation that it should create new binding possibilities (Lasnik and Saito 1991, den Dikken 1995):

(7) a. *Some linguists*ᵢ seem to each otherᵢ [*t* to have been given good job
          offers]
     b. *There seem to each otherᵢ [to have been some linguistsᵢ given good
          job offers]

Assuming that the Binding Theory applies at LF and that the NP *some linguists* raises to the position of the expletive at LF in (7b), it should be able to bind a reflexive. However, reflexive binding is impossible in (7b).[3]

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2. This problem also remains in Chomsky's (1991) analysis, where instead of substituting the expletive, it is assumed that the associate adjoins to the expletive (see Lasnik 1996 for discussion).
3. Although I do not adopt the LF associate raising analysis, it must be noted that (7) does not necessarily provide an argument against expletive replacement if the adjunction hypothesis mentioned in fn. 2 is adopted. It could be argued that adjunction movement of the associate at LF is A'-movement. Given that A-moved

To sum up, although locality and agreement phenomena seem to provide good reasons to assume expletive replacement, other facts, such as binding data and interpretational variants suggest that the associate does not raise to the position of the expletive and that the expletive replacement analysis must be rejected.[4, 5]

In the following I will outline an alternative analysis that manages to avoid the above mentioned contradiction, and, in addition, can be extended to the analysis of *wh*-expletives in the next section. With respect to question i) that concerns the origin of the expletive and its (syntactic) function, my analysis is based on the idea that *there* is the overt realization of a D-feature (see Chomsky 1995:364, Jonas 1996) which is moved from its base position inside the DP of its associate. Hence (8a) is derived from a DP [$_{DP}$ there [$_{NP}$ a man]] from which the D-part *there* is extracted. Alternatively the whole DP [$_{DP}$ [$_{NP}$ a man]] with the covert variant of the D-feature may be extracted as in (8b). In (8a) the expletive checks the strong D-feature of T°, in (8b) it is the whole DP that checks this feature and Case- and agreement-features.[6]

(8)   a.   [$_{TP}$ *There* [$_{T'}$ is [*t* a man] in the garden]]
       b.   [$_{TP}$ *A man* [$_{T'}$ is *t* in the garden]]

There is some independent evidence for this analysis. Note first that the *th* that shows up in *there* also shows up in other D-elements like determiners

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(but not A'-moved) antecedents may function as antecedents of reflexives, the ungrammaticality of (7b) is compatible with associate raising at LF. A similar explanation can be given for the weak crossover facts discussed in den Dikken (1995).

4. For additional arguments against expletive replacement, see Aoun and Li (1993) fn. 4; Runner (1995) chapter 8, among others.

5. Chomsky (1995) tries to solve this contradiction by assuming that in expletive associate constructions the "formal features" (Case-, and phi-features) of the associate raise at LF to T° whereas the semantic features of the associate remain in-situ. This induces no change in the LF-representation of existential sentences (6b), (7b), and (8b), and, under certain additional assumptions, it may also account for the binding data in (7) (Chomsky 1995:275f.). In addition, Chomsky (1995) mentions a further argument in favor of this analysis based on control phenomena. However, Lasnik (1996) argues convincingly against the argument based on control and shows in addition that the analysis of (7) based on feature-movement is too restrictive (see also Tanaka 1999).

6. Moro (1997) also assumes *there*-movement. However, in his analysis, the expletive originates as the predicate of the small clause complement of a copula (see also Hoekstra and Mulder 1990).

(*the, this, that*).[7] Second, in analyzing *there* as the spell-out of a D-feature, the similarity of expletives cross-linguistically may arise because D is taken from a universal set of features whose elements should not differ.[8] Furthermore, it was always unclear why meaningless syntactic dummy elements like *there* should exist in natural language. Given the analysis above one need not assume exceptional elements of this kind. Expletives are 'visible' realizations of features that exist anyway. Given this analysis, the impossibility of *there* bearing a Θ-role (see fn. 1) follows because a *there*-expletive is a subextracted (formal) feature-bundle that does not bear semantic features.

We also get a plausible explanation for the movement properties of expletive-associate constructions which motivated the LF-replacement analysis of expletives. (Overt) A-movement is actually involved in the relation between "expletive" and associate, although in a slightly different form than was assumed in earlier analyses. The locality effects observed in (4a) and (5a) follow from movement constraints on the expletive. Given this analysis, the facts that were always problematic for the LF-replacement analysis (6)-(7) are circumvented maintaining still the account for other movement properties. The impossibility of binding in (7), and the scope facts in (6.ii) follow from the fact that no associate raising takes place at LF. In my analysis the semantic features of the associate remain in-situ (see the discussion below).

Consider next the sentences in (9) which are a problem for the analysis of expletives in Chomsky (1995) (Frampton and Gutman 1997).

(9) a. There was circulated [a rumour that someone was in the room]
    b. [A rumour that there was someone in the room] was circulated

Given that both examples are based on the same numeration, sentence (9b) should block the derivation of (9a). To see why, assume the derivation has reached the stage *[$_\gamma$ was someone in the room]*. Given that Merge (of *there*) is more economical than Move/Attract (of *someone*), we would expect that the expletive *there* is always immediately merged with the structure built so far (γ), resulting in (9b). In my analysis this problem disappears since (9a) and (9b) result from different DPs. ((9a) is derived from the DP *There...[$_{DP}$ t [$_{NP}$ a rumour]]*; (9b) has the structure *There...[$_{DP}$ t [$_{NP}$ someone]]*.)

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7. This idea is related to Chomsky's (1995:338) suggestion that determiners such as *this*, *that* and *the* might be complex categories with the initial consonant representing D.

8. Expletive elements in the Germanic languages have two sources: locative adverbials and pronominal elements (normally accusative 3rd person Sg. Neuter). Some languages use both elements for expletives like English (*there*, *it*), others have only one (for example *Það* in Icelandic).

A further consequence of this analysis is that it predicts a one-to-one relation between the associate and *there*. Therefore, only one *there* is possible in sentences with one associate:[9]

(10) *There seems there to be a man in the garden

Let me now turn to the second question, i.e. how can we explain the distribution of Case and agreement in existential sentences? It has been argued in the literature on expletives that *there* can be analyzed as an element that checks nominative or – more generally - structural Case (see Lasnik 1992, 1995, Chomsky 1993, Groat 1995, Moro 1997). This assumption is independently motivated, for example, by the fact that *there* only occurs in Case-marked positions (ignoring the "null"-Case analysis) (see Safir 1985, Abe 1993):

(10) a. * It seems *there* to be a man here
    b. * I tried *there* to be a man here

(11) a.   For *there* to be a picture of the wall is unusual
    b.   I found *there* to be no basis for the allegation

Furthermore, Belletti (1988), Lasnik (1992, 1995), and Schütze (1999) (among others) argue that partitive case is assigned to the associate by elements such as *be*, unaccusative, and raising verbs. Under this assumption, (12b) and (13b) are ruled out since the associate is not in a proper position for partitive Case-marking:[10]

(12) a.   There is believed to be *a man* killed *t*
    b. * There is believed to be killed a man

(13) a.   There seems to be someone in the room
    b. *There seems *someone* to be *t* in the room

Let us now turn to the agreement facts. How can we explain that the predicate agrees with the postcopular associate in (2), repeated here as (14)?

(14) There are/*is several cats in the backyard

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9. Following Chomsky (1995), I assume that A-movement does not involve copy movement.
10. It is often argued that the definiteness restriction in *there*-sentences (1) can be explained on the basis of the assumption that only non-specific indefinites may carry partitive Case. Given that *be*, unaccusatives and raising verbs cannot check objective Case, the associate in an expletive-construction cannot be a definite (Lasnik 1992, 1995). However, de Hoop (1996) and Vainikka and Maling (1996) have observed that morphological reflexes of partitive Case assignment are also found with definites in Finnish. This suggests that the definiteness restriction does not follow from Case theory.

Following Lasnik (1989, 1995) I assume that *there* is endowed with agreement features (see also McCloskey 1991, who argues that the situation is different with *it*).[11] Therefore, the moved expletive agrees with the verb in T°.

Note that the adoption of the above mentioned assumptions concerning Case- and agreement checking has two important consequences. First, if the feature-bundle *there* has been moved to Spec TP, no reason exists for the associate (or its formal features) to escape the VP. Case as well as agreement features are checked after *there*-movement, and therefore associate raising is blocked. Second, the expletive bears [+interpretable] (agreement) features and is therefore not a semantically vacuous element. The last aspect leads to the third question, i.e. given the analysis of *there* as a sub-extracted feature-bundle, how can the interpretational facts in expletive associate constructions be explained?

Let me begin with the definiteness restriction on expletive associate constructions. Why must the associate in existential sentences be a non-specific indefinite? Groat (1995), Felser and Rupp (1997) (among others) assume that the "definiteness/specificity" effect in (1) (=(15)) and (6ii) (=(16)) can be explained on the basis of Diesing's (1992) analysis of indefinites.

(15) [$_{TP}$ There are [$_{VP}$ several/*the cats in the backyard]]

(16) a. There is a man in the garden
      b. *A man* is *t* in the garden

It follows from this analysis that definite subjects may not appear inside the predicate phrase (or "nuclear scope") at LF. In addition, this analysis predicts that the reading of an indefinite subject depends on the structural position it occupies at LF. Now consider (15). Given the plausible assumption that *there* and *the* in (15) both carry a D-feature, after *there*-raising, the D-feature in T° is checked and T° does not attract the D-feature of *the* (*cats*). The fact that associate-raising in (15) is impossible causes the ungrammaticality of this example. In contrast, an indefinite associate is licensed since in this case, only one D-feature is present, i.e. *there*. Now consider (16). The subject in the non-existential sentence (16b) may be interpreted in both subject positions, either in its derived position or in the position of its trace, correlating with a specific referential or a nonspecific reading. The specific referential reading is not possible in (16a), since

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11. Lasnik (1989, 1995) suggests that *there* is freely generated with any agreement features. Furthermore, he assumes a matching constraint on agreement-features. Another possibility would be to assume that *there* inherits the agreement-features from the associate inside the DP.

specific indefinites must reside outside the predicate phrase at LF, and, given my analysis, the associate in (16a) must remain in-situ at LF.[12]

In this section, I have presented an analysis of existential sentences whose main idea is that the expletive associate relation is derived by movement of a feature-bundle, the so-called expletive, out of the associate. In the next section, I will argue that *wh*-expletives may be analyzed in a similar fashion.

3. Expletives in A'-Chains

Wh-expletives appear in partial *wh*-movement constructions which are attested in *wh*-ex-situ languages such as German, Hungarian and Romani (McDaniel 1989, Horvath 1997) as well as in optional *wh*-in-situ languages such as Kikuyu, Malay, and Palauan (Georgopoulos 1991, Cole and Hermon 1995; 1997, Sabel 1996; 2000). As shown in (17b), in German, partial *wh*-movement consists of a local movement of a *wh*-phrase to an embedded Spec CP position of a [-*wh*] clause, and realization of a *wh*-expletive *was* 'what' (=WH) in the Spec CP position of a higher clause.

(17) a. [$_{CP1}$ Was meinst du [$_{CP2}$ *wen* [$_{TP}$ Peter   Hans *t* vorgestellt hat]]]
               WH think   you$_{nom}$ who$_{acc}$ Peter$_{nom}$ Hans$_{dat}$ introduced has
           'Who do you think that Peter has introduced to Hans?'
       b. [$_{CP1}$ *Wen*   meinst du [$_{CP2}$ *t'* daß [$_{TP}$ Peter   Hans *t* vorgestellt hat]]]
               who$_{acc}$ think you$_{nom}$ that   Peter$_{nom}$Hans$_{dat}$ introduced has
           'Who do you think that Peter has introduced to Hans?'

The *wh*-expletive and the associate stand in a "dependency relation", i.e. the *wh*-phrase in the lowest clause is interpreted in the Spec CP position of the highest clause. The *wh*-expletive acts as a scope marker since it marks the scopal position of the 'true' *wh*-phrase. (17a) is similar to the corresponding *wh*-question in (17b), which results from long *wh*-movement. Both constructions have the same meaning.

One problem with (17a) is that the 'true' *wh*-phrase freely violates selectional restrictions. Consider the examples in (18). In contrast to the verb *fragen* 'ask' in (18ii) the verb *meinen* 'think' in (18i) selects a [-*wh*] complement that does not tolerate a *wh*-phrase in its Spec (18i.a). This restriction in neutralized in the partial *wh*-movement construction in (17a).

(18)i. a. *Ich meine [$_{CP}$ *wen* [$_{TP}$ Peter   Hans   *t* vorgestellt hat]]
              I   think   who$_{acc}$ Peter$_{nom}$ Hans$_{dat}$ introduced has

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12. Note that the agreement features of *a man* in (16a) are moved together with *there* out of the VP, nevertheless the specific reading is impossible in this example. I assume that the 'semantic features' of the associate are relevant for interpretation. These features remain in VP at LF.

   b. Ich meine [$_{CP}$ daß [$_{TP}$ Peter   Hans   Maria   vorgestellt hat]]
       I   think   that   Peter$_{nom}$ Hans$_{dat}$ Maria$_{acc}$ introduced has
ii.a. Ich fragte mich [$_{CP}$ *wen* [$_{TP}$ Hans   *t*   sah]]
      I   asked refl.   who$_{acc}$ Hans$_{nom}$ saw
   b.*Ich fragte mich [$_{CP}$ daß Hans   Maria   sah]
      I   asked refl.   that   Hans$_{nom}$ Maria$_{acc}$ saw

The partial *wh*-movement construction raises the following questions. i) Where does the *wh*-expletive come from and what is its syntactic function? ii) Which constraints is the movement of the 'true' *wh*-element in the embedded clause subject to? Concerning question i), I assume that the *wh*-expletive *was* 'what' in (17a) originates as a [*wh*]/[focus]-feature bundle inside the *wh*-phrase with which it is associated.[13, 14] The example with partial *wh*-movement (17a) is then derived from the DP-structure [$_{DP}$ was [$_{NP}$ wen]] from which the D-part was 'what' is extracted, whereas the *wh*-phrase in (17b) has the underlying form [$_{DP}$ D [$_{NP}$ wen]]. As *there* is moved to check a D°-feature in T°, *was* 'what' in (17a) is moved in order to check a [*wh*]/[focus]-feature in C°. As with the difference between (8a) vs. (8b), (17a) differs from (17b) in that in the latter example the whole DP is moved. The feature-movement idea is reminiscent of proposals made in Hiemstra (1986), Watanabe (1992), Culicover (1992), Aoun and Li (1993), and Cheng (2000) who all argue that an operator or scope marking element is extracted from a DP and undergoes A'-movement in *wh*-movement constructions.[15]

    The "expletives as features" analysis provides an explanation for similar properties of expletive associate relations in A-/A'-chains. For example, it offers an account for the fact that partial *wh*-movement languages with overt realized expletives use as *wh*-expletive an element morphologically identical to the bare accusative *wh*-phrase (for example *was* 'what' in German). This can be seen, for example, in German, Romani (McDaniel 1989), Hindi (Mahajan 1990), Iraqi Arabic (Wahba 1992) and (although, for independent reasons, with variablity) in Hungarian (Horvath 1997). Similarily, the expletives in A-chains take morphological identical forms. Under the analysis presented here this cross-linguistic uniformity is

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13. Alternative analyses assume either that the *wh*-expletive is base-generated in Spec CP (McDaniel 1989) or that it is base-generated in object position and moved to Spec CP. See various papers in Lutz et al. (2000) for discussion of these analyses.
14. Furthermore, we have to ask what kind of parametrical property is responsible for the fact that some languages allow for partial *wh*-movement whereas others (for example English) do not. See Sabel (1996, 2000) for discussion of this variation as well as for the idea that focus-features play an important role in *wh*-movement constructions.
15. See Watanabe (1992:52ff) for reasons why languages may differ with respect to the possibility of splitting up parts of DP.

accounted for by the fact that the [*wh*]/[focus]-feature bundle as well as the D-feature bundle belong to the universal array of features, i.e. one and the same feature takes a similar form across different languages.[16]

   Further evidence for this analysis can be gained from locality effects in connection with weak and strong islands. The relation between the *wh*-expletive and the 'true' *wh*-phrase is sensitive to so-called weak islands (19c). In this respect partial *wh*-movement with *wh*-arguments differs from full *wh*-movement with *wh*-arguments (19a) and patterns with adjunct extraction (19b):

(19)a. [CP *Wen* glaubst du (?nicht) [CP *t′* daß[TP Hans *t* überzeugt hat]]]
             who believe you not   that Hans convinced has
        'Who do (n't) you believe that Hans has convinced?'
     b. [CP *Wie* glaubst du (*nicht)[CP *t′* daß[TP Hans *t* ihn überzeugt hat]]]
             how believe you not   that Hans him$_{acc}$convinced has
        'How do (n't) you believe that Hans has convinced him?'
     c.*[CP *Was* glaubst du (*nicht) [CP *wen*[TP Hans *t* überzeugt hat]]]
             WH believe you   not   who$_{acc}$ Hans   convinced has
        'Who do (n't) you believe that Hans has convinced?'

This fact can be explained if it assumed that the chain of the *wh*-expletive and its associate has properties of a feature- or X°-chain because it shares with adjunct chains the character of being a "Non-L-related" entity (Chomsky 1995:91). In addition, the conclusion that sub-extraction takes place in (19c) receives further support from the fact that sub-extraction in *was-für*-Split constructions behaves similarily to that in (19c):

(20)[CP *Was* glaubst du (*nicht)[CP daß[TP Hans [*t* für Bücher]gelesen hat]]]
         WH believe you not   that Hans for books read   has
      'What for books don't you believe that Hans has read?'

Furthermore, the feature movement analysis automatically accounts for the fact that languages show "strong island" effects with partial *wh*-movement as with overt *wh*-movement but not with *wh*-in-situ.[17] (21a) shows that partial *wh*-movement may not occur inside subject-islands. Subject clauses are also islands for full *wh*-movement (21b). In contrst, *wh*-in-situ of arguments in subject-islands does not result in ungrammaticality (21c):

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16. Although some Slavic languages, such as for example Polish, use *jak* 'how'. Furthermore, this subextracted feature-bundle is overtly realized in languages such as German (which have overt *wh*-expletives) but only covertly in languages such as Albanian, Iraqi Arabic, Kikuyu, Malay and Palauan.
17. Cole and Hermon (1995, 1998) observe the same facts with respect to *wh*-movement in Malay.

(21)a. *Was überrascht (es) dich [*wen*$_1$ Maria t_1 noch liebt]
        WH surprises   it   you$_{acc}$ who$_{acc}$Maria $_{nom}$ still loves

   b. *Wen$_1$ überrascht (es) dich [daß Maria t_1 noch liebt]
        who surprises   it   you$_{acc}$ that Maria$_{nom}$ still   loves

   c. *Wen*$_1$ überrascht (es) t_1 [daß Maria   wen   noch liebt]
        who$_{acc}$ surprises   it   that Maria$_{nom}$ who$_{acc}$ still loves

Given that islandhood is a dignostic for movement, to account for the data in (21), under pre-Minimalist analyses, one would have to claim that *wh*-in-situ constructions in languages such as German involve no LF *wh*-movement (21c). But then we would have to state that in German, LF *wh*-movement must apply only in partial *wh*-movement constructions (21a). This would imply that one and the same language varies with respect to *wh*-movement at LF, which would be incompatible with the claim that languages do not vary with respect to LF processes. Given the alternative analysis, according to which partial *wh*-movement involves feature movement in the overt syntax; i.e. sub-extraction of the *wh*-expletive, it follows automatically that (21a) patterns with full *wh*-movement (21b) and not with *wh*-in-situ (21c).

    Another argument for the feature-movement analysis concerns the fact that it predicts a one-to-one relation between the *wh*-expletive and the 'true' *wh*-phrase. (22a) shows that not only the 'true' *wh*-phrase in partial *wh*-movement constructions but also the *wh*-expletive, such as the one in CP$_2$, has to check [-*wh*]-features (in (22a) only the *wh*-expletive in CP$_1$ functions as a *wh*-scope marker; see Sabel 2000 for details of this analysis). Furthermore, as can be seen from (22a) vs. (22b), for most German speakers, scope marking across more than one sentence boundary is only possible if the highest *wh*-expletive and the true *wh*-phrase are connected via intermediate Spec CP positions which contain a *wh*-expletive:

(22)

a. [$_{CP1}$ *Was* meinst du [$_{CP2}$ *was* Peter glaubt [$_{CP3}$ *wen*   Maria t_{wen} liebt]]]
        WH think   you   WH P.   believes   who$_{acc}$M.   loves

b. $^{\%}$[$_{CP1}$ *Was* meinst du [$_{CP2}$ t_{was} glaubt   Peter [$_{CP3}$ *wen*   Maria t_{wen} liebt]]]
        WH think   you   believes P.   who$_{acc}$ M.   loves

I assume that constructions with multiple *was* as in (22a) result from overt copy movement of the *wh*-expletive which is independently attested in German, as can be seen from multiple occurrences of the *wh*-argument *wen* in (23a). ((23a) is synonymous with (23b)):

(23)

a. [$_{CP1}$ *Wen*   meinst du [$_{CP2}$ *wen*   Peter   glaubt [$_{CP3}$ *wen*   Maria t_{wen} liebt]]]
        who$_{acc}$think you$_{nom}$ who$_{acc}$Peter$_{nom}$believes   who$_{acc}$Mary   loves

b. [$_{CP1}$ *Wen*   meinst du [$_{CP2}$ t_{wen}'' glaubt   Peter [$_{CP3}$ t_{wen}' liebt Maria t_{wen}]]]
        who$_{acc}$think you$_{nom}$ believes Peter$_{nom}$ loves M.$_{nom}$

There is independent evidence for the fact that the similar copy movement operation is involved in (22a), giving rise to multiple occurrences of *was*. Note that for those speakers of German for whom the absence of an intermediate *was* in (22b) leads to ungrammaticality, the same ungrammaticality results if in (23a) not all copies in Spec CP are spelled out, as can be seen from (24). On the other hand, idiolects which do not force the *Spell Out* of any of the copies in (22b) also tolerate (24). Hence partial *wh*-movement behaves exactly like copy movement in this respect:

(24) $^{\%}$[$_{CP1}$ *wen* meinst du [$_{CP2}$ t_{wen} glaubt Peter [$_{CP3}$ *wen* Maria t_{wen} liebt]]]
        who$_{acc}$ think you$_{nom}$ believes Peter$_{nom}$ who$_{acc}$ M.   loves

These examples demonstrate that it is in fact only *one wh*-expletive that shows up in examples with multiple *was* as in (22a). This *wh*-expletive undergoes overt copy movement. Importantly, only the feature-movement analysis necessarily makes this prediction because according to this analysis the one *wh*-expletive is related to one true *wh*-phrase. In this respect, *wh*-expletives are similar to expletives in A-chains.[18]

   I have not yet discussed question ii), i.e. which constraints is the movement of the 'true' *wh*-element in the embedded clause subject to? First, the feature-movement account solves the problem posed by the selectional properties of the matrix predicate in (18i.a) and (17a). Given that the *wh*-feature is moved out of the *wh*-phrase in the Spec CP$_2$ position of (17a) this phrase is a [-*wh*]-element and no violation of the selectional properties of the matrix predicate occurs. Another question is why the DP-remnant *must* move to the embedded Spec CP position in (17a) (in contrast to the associate in A-chains). It can be shown that this follows from the shortest move condition (Sabel, to appear).

   So far, I have discussed the idea of "expletives as features" with respect to A'- and A-chains. However, the proposed account could probably be extended to X°-chains. For example, one could argue that auxiliaries in examples such as *John has often kissed Mary* are just collections of features which play the role of expletives with respect to the corresponding main verb representing the associate (see also Roberts 1997). Chomsky (1993) makes the proposal that auxiliaries are deleted at LF because they have no interpretation. This makes auxiliary-participle complexes look very similar to the other kinds of expletive associate relations discussed in the preceding section.[19] In fact, auxiliary and main verb display a division of "syntactic labor" and share essential syntactic properties. On the one hand, the auxiliary bears the agreement features for the main verb; on the other hand,

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18. However, given that A-movement in contrast to A'-movement does not involve copy-movement, multiple *there* are impossible (10) in contrast to multiple *was*.
19. Another place to look at the effects of "pure" feature movement is the area of cliticization, especially with respect to clitic doubling.

it participates in the Θ-grid and Case assigning potential of the main verb. Case assignment and Θ-role assignment in an auxiliary-participle construction takes place in exactly the same way as in the corresponding construction without auxiliary. One could assume from these properties of the auxiliary-participle complex that auxiliary and participle have to be analyzed as a single head at one step of the derivation. If we extend the analysis of expletive associate relations proposed in the preceding sections, then we could assume also that an auxiliary is simply a feature bundle that is extracted out of the associate (i.e. the participle). Unlike other complex X° categories composed of affixes, such as finite main verbs with the structure V+T+Agr, the complex head consisting of auxiliary and participle does not allow for adjacency. In fact, auxiliary and participle obligatorily represent one discontinous head.

To sum up, in this paper I have presented several arguments for the view that the expletive associate relation in A-/ and A'-chains is derived by movement of the so-called expletive out of the associate. According to this view the expletive is a feature bundle of the associate. In this analysis one "sees" the features that normally drive the movement of the moved element in the corresponding constructions without expletives.

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