Remarks and Replies

The Nonuniversality of a Surface Filter*

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0. Introduction

In the current literature, there are basically two proposals about the nature of surface filters. The first is to be found in Perlmutter (1968; 1971); the second in Chomsky and Lasnik (1977; henceforth C&L). Both proposals use surface filters because they make it possible to simplify the overall grammar by reducing the role of the transformational component in grammar; they differ, however, in the uses to which surface filters are put. By the late 60s, it had become clear that if the transformational component of the grammar was to handle all syntactic phenomena, a great number of conditions had to be imposed upon transformations, resulting in a loss of simplicity and generality. Perlmutter suggested that by adding the device of surface filters to the theory of grammar, it would be possible to obtain a much less complex transformational component. His No-Condition hypothesis (1971, 128) anticipates the direction of later research by suggesting the need to eliminate "conditions on transformations" altogether. C&L's hypothesis is "that the consequences of ordering, obligatoriness, and contextual dependency can be captured in terms of surface filters, . . . and further, that these properties can be expressed in a natural way at this level" (p. 433). But if the overall grammar is to be simplified, then the form of surface filters themselves must be restricted. C&L raise the issue of what the general properties of filters are (pp. 488-490). They suggest that "filters are 'local' in the sense that they consider only the properties of some continuous construction" (p. 489) and (implicitly) that filters are negative statements; furthermore, they see surface filters as "a device for expressing properties of the

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complementizer system" (p. 444). In Perlmutter's earlier study, surface filters are used primarily to state constraints on word order and on the appearance of missing nodes in surface structure (e.g. clitic placement and the typological difference among languages according to whether or not they require surface subjects). In Perlmutter's framework, surface structure is an appropriate level (although not the only level) at which to express differences among languages, especially differences among closely related languages. If we assume that such languages have essentially identical transformational components, then filters are a reasonable device to account for different surface details; clitic placement in the Romance languages is a case in point. C&L, on the other hand, propose various universal filters in addition to language-specific ones, both because the complementizer system in any language is viewed as a language-specific realization of a set of universal features (p. 451), and because attributing any generalization to universal grammar immediately accounts for its "acquisition" (p. 456).

In this article, we will look at one of the many surface filters proposed in C&L, focusing on the filter's role in the grammar of two Modern Germanic languages, Dutch and Icelandic, to see if in fact the surface filter solution leads to a natural and revealing analysis of the syntax of those languages. We will show that the allegedly universal surface filter leads instead to a loss of generalization, even within the framework of trace theory, and we will give evidence that the role of surface filters advocated in Perlmutter is more in accordance with the syntactic facts.

1. The Proposed Universal

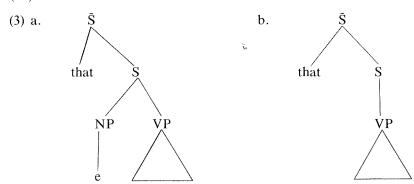
In C&L (p. 451), the following surface filter is proposed as a linguistic universal:

(1) *[\bar{s} that [$_{NP}$ e]], unless \bar{S} or its trace is in the context: [$_{NP}$ NP ____ . . .] (= C&L (68))

We will refer to this filter as "filter (68)". The authors intend this filter to apply under the following circumstances:

(2) The filter (68) is valid for all languages that do not have a rule of Subject-Pronoun Deletion, and only these. (= C&L (71))

The crucial assumption here is that an independently motivated rule of Subject-Pronoun Deletion will apply to the structure referred to in filter (68), converting (3a) into (3b):



This will erase the trace left by any rule that has extracted the subject, and leave filter (68) with nothing to reject. C&L's assumption is that "deletion removes a category and its content" (p. 453), whereas movement rules leave a category and a trace behind. It is not a priori obvious that a Subject-Pro-Drop rule should apply to traces in this way; presumably C&L feel justified in treating traces in the same way as pronouns because of the similarity in binding of indexed (pro)nouns and traces, as explained in Chomsky (1977, 77). For the purposes of the argument, we shall assume that traces can be deleted in this way.

C&L contrast this analysis with that in Bresnan (1977), where the ungrammaticality of sentences like (4) is attributed to a condition on rules, specifically to the occurrence of the complementizer as the rightmost element in an essential variable X in the structural description of the rule of Wh Movement.

(4) *Who do you think that ____ came?

(Since this will be the case whenever the wh-word is the subject NP, this condition has been referred to as the "Fixed Subject Constraint" (FSC).) C&L see as an advantage of their formulation the fact that it makes (68) universal, whereas Bresnan's proposal is language specific, and thus does not explain the generalization in (2). This is, of course, an advantage only if (68) is indeed universal, and if (2) holds. But this is not the case. The first exception to the generalization in (2) was noted in Perlmutter (1971), who gives the following Dutch example:

(5) Wie vertelde je dat gekommen² was? (= Perlmutter (79)) who said you that come was 'Who did you say that had come?'

¹ Universality aside, the proposed surface filter (68) seems to miss syntactic generalizations within English. The condition "unless \tilde{S} or its trace is in the context: [NP NP ____ . . .]" is needed to allow for grammatical sentences with relativized subjects such as (i):

(i) [NP] the man [S] that [NP] e] came to dinner]] just called

The "unless"-clause must mention \hat{S} or its trace, since extraposition of the relative clause does not affect the grammaticality of such sentences (where t is the trace of \hat{S}):

- (ii) The house t burned down $[\bar{s}]$ that [NP] e was built by my grandfather].
- (iii) What t is here $[\bar{s}]$ that [NP] e] shouldn't be (here)]?

The fact that the filter must refer to "Š or its trace" shows that the grammaticality of such sentences is a function of relativization itself and has nothing to do with the surface structure position of the relative clause. The existence of this particular class of "exceptions" to the filter is predicted by Bresnan's Complementizer Constraint: only for this type of relativized subject is the complementizer *that* not the rightmost element of an essential variable but rather a constant term in the structural description of the Relativization rule. See Bresnan (1977).

Similar problems for filter (68) come from cleft sentences, which furnish further examples of grammatical sentences with *that* [NP] el that violate the proposed filter:

(iv) It was John [\bar{s} that [NP e] always made such a fool of himself in class].

Whatever the correct analysis of clefts may be, it is generally agreed that the \tilde{S} and the preceding NP do not constitute a single NP-constituent (see Baltin (1977)); nor is it clear that \tilde{S} has a trace that constitutes a single constituent with the only other NP, since dummy it cannot take relative clause modifiers.

See also Haiman (1974, 79) for further problems related to the deletion of the complementizer that.

² The fact that *gekomen* was misspelled with two *m*'s instead of one in Perlmutter is of course irrelevant to the grammaticality of (5).

The Dutch facts are disputed by C&L, who suggest that the grammaticality of (5) is "restricted to certain dialects" for which "there seem to be reasonable alternative analyses" (p. 452, fn. 55); however, they do not elaborate on these alternatives. While the facts may be a bit more complicated than Perlmutter supposed, sentences like (5) are widely acceptable in Dutch and can be found, for example, in the contemporary Dutch grammar cited below. We will investigate the reasonableness of possible alternative analyses at length below, but first we note that Dutch is not the only apparent exception to filter (68). Modern Icelandic accepts sentence (6) as fully grammatical, and here the facts are apparently not obscured by dialectal variation:

(6)	Hver	sagðir	þú,	að	væri	kominn	til	Reykjavíkur?
	who	said	you	that	was	come	to	Reykjavik
	nom.							gen.
	'Who	did vo	ou sa	v that h	ad co	ome to F	Rev	kiavik?'

1.1. More Data

We will first give some further examples of violations of filter*(68) in both Dutch and Icelandic. We will then try to account for them in the framework of C&L, and finally we will present a new proposal for a well-formedness constraint in Icelandic and the Dutch dialects that allow (5).

Paardekooper (1971, 391–392) cites the following examples of extracted subjects in Dutch:

- (7) Dat is iemand die ik denk dat ____ nog lang hier zal blijven. that is someone who I think that ___ yet long here shall stay 'That is someone who I think will stay here a long time yet.'
- (8) Die man denk ik niet dat _____ veel haast zal maken. that man think I not that much haste shall make 'That man I don't think will hurry much.'

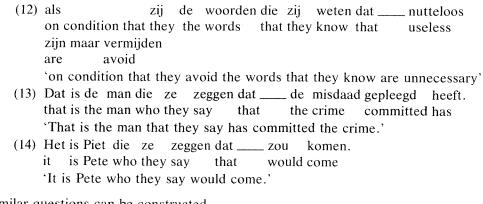
Brachin (1973; 1974) discusses this very construction; a few of his examples are repeated here:

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(9) ... een herinnering aan A., die ik hoop dat ____ U aangenaam a souvenir of A. that I hope that to you agreeable moge zijn. (Verwey) will be
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'a souvenir of A. that I hope will be agreeable to you'

- (10) ... en wat zij afwachtte wist zij dat ____ komen zou. (Couperus) and what she expected knew she that come would 'and what she was expecting she knew would come'
- (11) vrienden die hij weet dat ____ met genoemde firma zaken doen . . . friends who he knows that with aforementioned firm business do 'friends who he knows do business with the aforementioned firm'

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Similar questions can be constructed.

- (15) Wie zei je dat ____ die appel opgegeten heeft? who said you that this apple eaten 'Who did you say ate this apple?'
- (16) Welk maneuver dacht hij dat ____ nutteloos zou what maneuver thought he that useless would be 'What maneuver did he think would be useless?'

The above examples include relative clauses, clefts, topicalizations, and questions with extracted subjects that violate filter (68); for at least some of the examples, the deletion site can only be immediately following the complementizer dat, which can never be deleted in Dutch. These sentences seem to be acceptable for most speakers of Dutch. The sources of the citations in Brachin show that the acceptability of such sentences is not regional or social. Whatever the limitations on the use of such sentences may be, they are genuine Dutch sentences and have to be accounted for. We will call the "dialect" that allows them Dutch A.

1.2. Icelandic Data

The same situation seems to prevail in Icelandic, where sentences like the following are grammatical for all speakers.

- (17) þetta er maðurinn, sem þeir halda að ____ sé of heimskur til að vinna verkið. this is man-the that they think that is too dumb in order to do job-the 'This is the man that they think is too dumb to do the job.'
- (18) þetta er maðurinn, sem þeir segja að ____ hafi framið glæpinn. this is man-the that they say that has committed crime-the 'This is the man whom they say has committed the crime.'
- (19) það er Ólafur, sem þeir segja að ____ muni koma. it is Olaf that they say that would come 'It is Olaf whom they say would come.'

- (20) þetta sverð heldur konungurinn að _____ sé galdrasverð. this sword thinks king-the that is magic-sword 'This sword the king thinks is a magic sword.'
- (21) Hver sagðir þú að ____ hefði borðað þetta epli? who said you that had eaten this apple 'Who did you say had eaten this apple?'
- (22) Hvaða bragð sagði hann að væri gagnslaust? which maneuver said he that was useless 'Which maneuver did he say was useless?'

Deletion of the complementizer $a\delta$ is only marginally possible in Icelandic, and is certainly no better in these examples of extracted subjects.

2. An Attempt to Maintain the Generalization

Given the variety of possible violations of filter (68) illustrated above, it would seem that Dutch and Icelandic are counterexamples to any claim for the universality of (68). One might object, however, that Dutch and Icelandic are not true examples of languages without a rule of Subject-Pronoun Deletion, so that in fact they cannot constitute counterexamples to the filter. While ordinary personal pronoun subjects are as obligatory in Dutch and Icelandic as they are in English and French, there are a few cases of sentences in Dutch and Icelandic that do not have an overt subject in surface structure. However, to use this fact as an explanation for the apparent violations of filter (68), one must find a way to derive sentences like (7)–(16) and (17)–(22) by using a more limited Pro-Drop Rule to eliminate the category [NP e] that offends the filter. We will explore this analysis in sections 3 and 4, and show that it will not work even if rather implausible assumptions are made about the nature of the Pro-Drop Rule to try to save the C&L analysis.

2.1. The Extent of Pro-Drop in Dutch A

Dutch has two dummy subjects, het 'it' and er 'there'. Het is used for weather verbs as shown in (23)-(24), and is obligatorily present in all dialects of Dutch.

- (23) Het regent. (*Regent.)
 it rains
 'It rains.'
- (24) Gisteren regende het. (*Gisteren regende.) yesterday rained it
 - 'Yesterday it rained.'

Het is also used with "raising verbs" when Raising does not take place:

(25) Het schijnt dat ze hard werken. (*Schijnt dat ze hard werden.) it seems that they hard work 'It seems that they work hard.'

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Since *het* can never be deleted,³ this dummy subject cannot be a factor in the derivation of the sentences (7)–(16).

The second dummy subject *er* is used with impersonal passives, as in (26) and (27), and with Indefinite NP Movement, as in (28) and (29):

- (26) Gisteren werd er door het hele dorp gedanst en gezongen. yesterday was there by the whole village danced and sung 'Yesterday the whole village danced and sang.'
- (27) Hij vertelde me dat er door het hele dorp gedanst en gezongen werd. he told me that there by the whole village danced and sung was 'He told me that the whole village danced and sang.'
- (28) Er werken vele mensen in deze fabriek. there work many people in this factory 'Many people work in this factory.'
- (29) Jan vertelde me dat er vele mensen in deze fabriek werken. John told me that there many people in this factory work 'John told me that many people work in this factory.'

Indefinite NP Movement is much more general in Dutch than it is in English; it occurs with all kinds of verbs, even transitive ones, 4 as shown in (30):

(30) Er eten vele mensen kaas in Holland. there eat many people cheese in Holland 'Many people in Holland eat cheese.'

- ³ An anonymous reader of LI points out that (i) can be considered an example of *Het* Deletion; cf. the sentence in (ii).
 - (i) Duidelijk is in elk geval dat hij er was. clear is in any case that he there was
 - (ii) Het is in elk geval duidelijk dat hij er was. it is in any case clear that he there was 'It is in any case clear that he was there.'

In our framework, there is a straightforward derivation for (i) that does not involve *Het* Deletion: (i) is derived from an underlying structure with sentential subject, as in (iii), and then a fronting rule applies to produce (iv).

- (iii) Dat hij er was is in elk geval duidelijk, that he there was is in any case clear 'That he was there is in any case clear.'
- (iv) Duidelijk is dat hij er was in elk geval.

(iv) is a grammatical sentence in the Dutch dialects that allow internal NP-over-S constructions; otherwise, the internal clause must be shifted to the right to produce (i). In this derivation *het* is never inserted, and so never has to be deleted. Of course, the versions with Extraposition of sentential subject and *Het* Insertion also exist.

⁴ There are however, semantic restrictions on the use of *er*. Consider the following sentence (brought to our attention by Frank Heny), which is completely impossible.

(i) *Er vreest een muis katten. there fears a mouse cats

The exact nature of these constraints on er is unclear, but it is sufficient here to point out that they have nothing to do with the syntactic subcategorization frames of the verbs.

The appearance of *er* in these two contexts seems to be obligatory in some Dutch dialects, which we will refer to collectively as Dutch B. In other dialects, however, it is not obligatory, as long as its absence does not violate the verb-second constraint, which requires that the tensed verb be in second position in its clause. These dialects accept (31) as well as (26) as grammatical.

(31) Gisteren werd door het hele dorp gedanst en gezongen.

Good examples of Indefinite NP Movement without Er Insertion are difficult to give because Er Insertion moves the NP just one position to the right in most cases, so that when er is not inserted, there will not always be surface evidence of NP-movement having occurred. However, if it is assumed that the normal place of the subject is the one where definite subjects show up in (32) and (33), then (34) and (35) are examples of Indefinite NP Movement without Er Insertion.

- (32) a. Gisteren werkten die mensen hier nog. yesterday worked those people here still 'Yesterday those people still worked here.'
 - b. *Gisteren werkten hier nog die mensen.
- (33) a. Hij vertelde dat die mensen hier gisteren nog werkten. he said that those people here yesterday still worked 'He said that those people still worked here yesterday.'
 - b. *Hij vertelde dat hier gisteren nog die mensen werkten.
- (34) Gisteren werkten (er) hier nog veel mensen. yesterday worked (there) here still many people 'Yesterday many people still worked here.'
- (35) Hij vertelde dat (er) hier gisteren nog veel mensen werkten. he said that (there) here yesterday still many people worked 'He said that many people still worked here yesterday.'

The sentences in (34) and (35) with er are acceptable in all dialects of Dutch; without er they are accepted only in the dialects that allow er to be dropped (or not inserted). As far as can be determined on the basis of a sample of approximately 40 informants, the two phenomena, nonobligatoriness of er and the apparent violations of filter (68), are correlated; the dialects that have one also have the other. This suggests the following modification of C&L's claim:

(2') Filter (68) is valid for all languages with obligatory dummy subjects, and only these.

To the extent that this correlation is valid, 5 it is an interesting fact that lends plausibility

⁵ Although the correlation appears to be valid within Germanic, (2') is still too strong, since there are languages that observe the FSC even though they freely delete personal pronoun subjects. John Haiman (1974) has pointed out that Serbo-Croatian and Hungarian are such languages. We cite here one of the near

to the attempt to account for the lack of the Fixed Subject Constraint in certain dialects by making use of an *Er* Drop rule. As far as we know, this modified form of the correlation is valid within Germanic. As we shall see in the next section, it covers Icelandic as well as Dutch. It even extends to Old English, which also allowed violations of the Fixed Subject Constraint, as noted by C. Allen (1977, 82); personal pronoun subjects were obligatory in OE, but dummy subjects were not.

Henceforth, we will assume that (2') is the correct generalization, and we will be exploring the question of whether trace theory explains (2') on the further assumption that filter (68) is a linguistic universal.

2.2. The Extent of Pro-Drop in Icelandic

The correlation between nonobligatory dummy subjects and violations of (68) extends to Icelandic. Icelandic has a *There* Insertion rule that is similar to the Dutch one in that it occurs with a wide variety of verbs, both intransitive and transitive, provided that the deep subject is indefinite. The dummy subject in Icelandic is $pa\delta$ 'it/there' ($pa\delta$ is a neuter, singular pronoun).

(36) það
$$\operatorname{er} \left\{ \begin{array}{l} \operatorname{snj\acute{o}r} \\ *\operatorname{snj\acute{o}rinn} \end{array} \right\}$$
 á jörðinni. (*Er snj\acute{o}r á jörðinni.) there is (*the) snow on ground-the 'There is (*the) snow on the ground.'

(37) það drekka margir vín á Íslandi. (*Drekka margir vín á Íslandi.) there drink many [people] wine in Iceland 'Many people drink wine in Iceland.'

minimal pairs that Haiman gives in Hungarian (p. 81):

NPs other than subjects can be extracted freely out of subordinate clauses in Hungarian, but subjects cannot be extracted, as shown by the ungrammaticality of (ii). In (iii), however, the missing subject of the embedded S was removed by a local Subject-Pronoun Deletion rule, not by an extraction rule; hence (iii) is grammatical.

The difference between Hungarian and Spanish shows that a language with Subject-Pro-Drop may or may not obey the FSC. This fact shows that the correlation stated in (2') must be weakened still further, as in (2'').

The existence of languages like Hungarian provides unambiguous evidence that trace theory does not explain (2'). At best the correlation between obligatory surface subjects and the FSC is a one-way implication. This is nonetheless an interesting fact: all languages with obligatory dummy subjects apparently obey the FSC. Within Germanic, we can see this correlation at work diachronically. It seems that extraction rules became subject to the FSC only when subject pronouns became obligatory in the various impersonal constructions.

⁽i) Ferenc már mondta hogy a hug-a Pál-hoz megy férj-hez. Frank already said that the sister-his Paul-to goes husband-to 'Frank already said that his (younger) sister would marry Paul.'

⁽ii) *Ki mondta Ferenc hogy Pálhoz megy férjhez? 'Who did Frank say that would marry Paul?'

i) Kiröl mondta Ferenc hogy Pálhoz megy férjhez? 'Of whom did Frank say that (she) would marry Paul?'

^{(2&}quot;) The filter (68) is valid for all languages with obligatory dummy subjects, but not conversely.

Icelandic also has impersonal passives with the same dummy bað:6

- (38) það var beðið eftir honum. (*Var beðið eftir honum.)
 - it was waited for him
 - 'Somebody waited for him.'
- (39) það verður dansað í kvöld. (*Verður dansað í kvöld.)
 - it will be danced tonight
 - 'There will be dancing tonight.'

But $ha\delta$ is not always present in surface structure in Icelandic; this fact is illustrated in (40)-(41):

- (40) Í gær var (*það) mikill snjór á jörðinni. yesterday was (there) much snow on ground-the 'Yesterday was (there) much snow on the ground.'
- (41) a. Hún sagði að (* það) hér drykkju margir vín. she said that (there) here drink many [people] wine 'She said that here many people drink wine.'
 - b. Hún sagði að hér drykkju (* það) margir vín.

The conditions under which this occurs are slightly different than in Dutch A; we will return to this difference in section 4.3, to explain why $pa\delta$ is impossible in these Icelandic sentences, when er is possible in the analogous Dutch sentences.

3. Alternative Analyses

It is obvious from this brief survey of Dutch and Icelandic dummy subjects that only the $er/pa\delta$ that occurs with indefinite NPs and impersonal passives is general enough to be the basis for an attempt to link the absence of an overt subject in certain constructions to the apparent violations of filter (68). In this section, we will consider several alternative analyses for Dutch A, before turning to Icelandic in section 4. As will become clear, any direct use of *There* Insertion is doomed to failure. The major stumbling block for such an analysis is the semantic conflict with the definiteness of the target in relatives, topicalizations, and clefts. It is conceivable that the formulation of an Er Deletion rule within the framework of autonomous syntax might get around this semantic conflict; but, as we will see, this is not the case.

- ⁶ In addition, the same dummy subject is used with weather verbs and with raising verbs in Icelandic:
- (i) það rigndi í gær.
 - it rained yesterday
 - 'It rained yesterday.
- (ii) a. það virðist að þeir vinni mikið.it appears that they work hard'It appears that they work hard.'
 - b. þeir virðast vinna mikið. they appear to work hard 'They appear to work hard.'

3.1. Alternative 1

Given the grammaticality of sentences like (42) in Dutch, it is initially plausible to argue that sentence (5) is derived by extracting the subject from a position *not* adjacent to the COMP; that is, that (5) is derived from (43d) via a rule of Er Deletion.

Indef. NP Postposing

Er Insertion

Wh Fronting

- (42) Er is iemand gekomen.
 - 'There is someone come.'
- (5) Wie vertelde je dat ____ gekomen was? who said you that come was 'Who did you say [that] had come?'
- (43) a. COMP je vertelde dat WH gekomen was
 - b. COMP je vertelde dat t WH gekomen was
 - c. COMP je vertelde dat er WH gekomen was
 - d. Wie je vertelde dat er t gekomen was?
- (44) Wie vertelde je dat er gekomen was?

In this derivation, we have first moved the indefinite wh to the right, inserted er to cover up the trace, and later deleted er (and with it the NP-category); thus, the trace left by the application of Wh Movement is not adjacent to the complementizer dat 'that'. And indeed, (44) is a grammatical question in all Dutch dialects.

However, if deletion precedes the application of filters as C&L suggest (p. 453), this will not solve the problem for Dutch A. After Er Deletion, the deleted element is no longer visible to filters, and so the trace left by Wh Movement will once again be contiguous to dat; in sentences like (5) we will be left in the same situation as if Er Insertion had never applied, and the extraction had taken place directly from the environment that filter (68) prohibits.

The only conceivable gain in this analysis is that presumably the wh-word has been moved out of subject position and into the VP, so that the filter might be saved by restricting it to subjects, i.e. by reformulating it so that *that [NP] e is indeed prohibited, but the sequence in (45) is allowed.

(45) that $[v_P[N_P e]...]$

This, however, is against the spirit of the C&L proposal, and they state explicitly that the filter is not limited to subjects (cf. their observation about Dutch om-complemen-

⁷ Although in other cases, as is clear from (35), some lexical material may intervene between er and the original subject, there is no way to derive (5) from a source where (the trace of) wh is not contiguous to er prior to Er Deletion. Sentences like (i) and (ii) are ungrammatical.

- (i) *Omdat er gekomen een man was . . . because there come a man was 'Because there had come a man . . . '
- (ii) *Omdat er gekomen was een man, . . .

tizers, p. 455). Furthermore, even this emendation would not explain the apparent violations of the filter in relative clauses and topicalizations, since in the examples in (6)–(14), er cannot show up in any dialect of Dutch because of the definiteness of the target NPs. Further assumptions will be necessary to save the filter.

3.2. Alternative 2

To use an Er Drop rule to wipe out [NP e] in relative clauses, it is necessary to make a distinction between a syntactic Er Insertion rule and a semantic Er Interpretation rule. This same distinction has been proposed for totally different reasons by G. Milsark (1974) in his discussion of There Insertion in English. Milsark proposed a very simple and general There Insertion rule:

(46) There Insertion

	X	t	Aux	Y
SD:	1	2	3	4
SC:	1	there	3	4

Milsark proposes that this insertion rule apply cyclically in a framework in which Wh Movement is not cyclic. In the framework of C&L, however, Wh Movement is cyclic, so that if we maintain the same kind of formulation as given in (46), the There Insertion rule will now cover traces left by Wh Movement as well. To avoid details about Dutch word order, specifically the position of Aux, we will state the rule informally as in (47):

(47) Insert *er* optionally whenever a subject trace has not been covered in a tensed clause.

(We will skip a discussion of the proviso tensed clause; it depends on certain assumptions about Equi that are not crucial for the rest of the argument.)

Under the assumption that Wh Movement is cyclic, then cyclic application of (47) will make the following derivation possible:

- (48) a. COMP je vertelde dat wie gekomen was? you said that who come was
 - b. Wie vertelde je dat t gekomen was?
 - c. Wie vertelde je dat er gekomen was?
 - d. Wie vertelde je dat ϕ gekomen was?
 - 'Who did you say [that] ____ had come?'

Surface filter (68) is not violated by the output of this derivation since Er Drop wipes out the NP node. In the dialects in which there is no Er Drop, only (48c) would be grammatical, and that is indeed the case. In dialects with Er Drop, (48d) is also grammatical.

When applied to relative clauses or topicalizations, however, the proposal just sketched will generate ungrammatical sentences. For example, analogous to (7) and (8)

we would expect to find the following sentences:

- (49) Dat is iemand die ik denk dat (*er) nog lang hier zal blijven.
- (50) Die man denk ik niet dat (*er) veel haast zal maken.

And parallel to (10) and (11):

- (51) . . . en wat zij afwachtte wist zij dat (*er) komen zou.
- (52) Vrienden die hij weet dat (*er) met genoemde firma zaken doen . . . 8

We can, however, assume that these sentences with er will be thrown out by the interpretive component in Dutch B: the indefinite interpretation of er will conflict with the interpretation of the definiteness of the relativized or topicalized NP. But what about Dutch A, in which the sentences are grammatical without er? If er is present at the moment of semantic interpretation, then the same conflict will arise as in Dutch B, and the sentences will be thrown out and will no longer be available as sources for the grammatical sentences without er. If (6)–(14) are to be derived in the way proposed for wh-questions, that is, via Er Insertion and Er Drop, then the er must be deleted before semantic interpretation takes place. This is a consequence that C&L explicitly reject: "We assume that deletion does not precede construal, etc., since deleted elements must undergo semantic interpretation" (p. 431). This assumption makes it impossible to use an Er Insertion rule, even in its most general trace-covering formulation, followed by optional Er Drop, as an explanation for the violations of filter (68) in Dutch A.

3.3. Still Another Attempt?

In the preceding discussion, we have made the implicit assumption that er "means" something, and that whatever that meaning is, it conflicts with the meaning of the definite article. One could, however, reasonably assume that in fact er has no meaning of its own, but rather that, whatever the difference in the meaning of sentences with and without Indefinite NP Movement is, it is due to that movement itself, and not to er, which could have a purely syntactic role. This assumption is all the more plausible because it will not force us either to find one common meaning for er in both impersonal passives and Indefinite NP Movement sentences, or to postulate two ers with different meanings in these two constructions. We will pursue a proposal like this in section 4.3. However, we note here that this move will not solve our problem in the framework of C&L: the Er Drop rule in Dutch A is optional, not obligatory. If sentences like (49)–(52) are not ruled out for semantic reasons when er is present, then they must be judged ungrammatical for syntactic reasons. We conclude that the general Er Insertion rule that we were forced to formulate in (47) to give Er Drop a chance to apply in sentences like

⁸ Like English *there*, Dutch er is ambiguous between an existential and a locative reading; sentences (50)–(52) are grammatical with a locative reading, but ungrammatical if er is understood to be the result of Er Insertion; (49) already contains a locative (*hier*), which excludes the locative reading for er.

(7)-(16) is simply wrong. Note that once we give up (47), there is no need for both an Er Insertion and an Er Drop rule in Dutch A; an optional Er Insertion rule suffices.

3.4. Conclusion

We can conclude that there is no direct way to use the nonobligatoriness of er in Dutch A to account for the grammatical violations of filter (68). Of course, there remains one possibility: to assume that the nonappearance of er in certain cases is in itself sufficient evidence for an Er Deletion rule and that this rule can be extended in an ad hoc way to delete a trace whenever necessary. Positing such a Trace Deletion rule would then be a restricted case of C&L's principle, which they state as "In general, if the language permits Subject Deletion, it will delete 'empty' subjects of the form [NP e], thus voiding the filter" (p. 453). Such a rule will remove the offending trace without going through any intermediate stages involving a dummy subject. If one considers the universality of filter (68) to have been so forcefully established by C&L that the use of such a completely ad hoc device without any language-internal motivation is warranted, no argument can be adduced against this approach on the basis of the Dutch data. We will see in the next section, however, that in the case of Icelandic, positing a Trace Deletion rule would force us to give up an otherwise obvious generalization.

4. Evidence from Icelandic

4.1. það Insertion

Examples of grammatical sentences with extracted subjects in Icelandic were given in (6) and (17)-(22). In Dutch A, we found two grammatical variants for wh-questions, one with and one without er, lending plausibility to the attempt to correlate violations of filter (68) to an optional Er Drop rule. In Icelandic, however, even this bit of supporting evidence is lacking. Unlike er in Dutch A, $pa\delta$ is not optional in Icelandic; it is either required or simply impossible. Thus, in contrast with the optionality of er in Dutch A shown in (28) and (33), we find the following situation in Icelandic:

- (53) a. það var dansað í gær. there was danced yesterday 'There was dancing yesterday.' b. Í gær var (* það) dansað.
 - b. Í gær var (* það) dansað.
 yesterday was there danced

When we look at the subject extractions being considered here, we find that $pa\delta$ cannot occur in place of the deletion site in wh-questions, relatives, topicalizations, or clefts.

(i) það er einhver kominn til Reykjavíkur. 'There is someone come to Reykjavík.'

Compare (42) and (44) to (i) and (54). Note that the ungrammaticality of the sentences containing hat in (54)-

⁹ There are interesting differences between Dutch and Icelandic with respect to *There* Insertion. (54) is ungrammatical in Icelandic even though the following sentence is grammatical:

- (54) Hver sagðir þú að (*það) væri kominn til Reykjavíkur? (= (6)) who said you that (*there) was come to Reykjavík 'Who did you say (*there) had come to Reykjavík?'
- (55) þetta er maðurinn, sem þeir segja að (*það) hafi framið glæpinn. (= (18))
- (56) þetta sverð heldur konungurinn að (*það) sé galdrasverð. (= (20))
- (57) það er Ólafur, sem þeir segja að (* það) muni koma. (= (19))

Since Icelandic sentences like this are ungrammatical with pab, their use as intermediate stages in the derivation of grammatical violations of (68) is clearly an unmotivated, ad hoc means of saving the universality of the filter.

4.2. Another Possible Problem for Filter (68)

Before turning to the real function of \$\rho \text{\delta}\$ in Icelandic, we would like to point out another potential problem for the filter within the framework of trace theory. The argument is based on impersonal passives with oblique "subjects", i.e. dative or genitive objects that retain their original oblique case under Passive. Andrews (1976) argues that these deep structure objects are derived subjects, since they undergo Raising (Icelandic differs from German in this respect); but since the assumptions on which his argument rests are not universally accepted, the question remains worth investigating. If the rule that produces such impersonal passives with oblique subjects is not a subject-substitution process, then there is another category of violations of (68), since extraction of the oblique "subject" will produce violations that are nonetheless grammatical. Consider the derivation of (58).

(58) Honum var hjálpað.

dat.

'He was helped.'

If we make the assumption that Passive is a two-step process, then the derivation

⁽⁵⁷⁾ is not due solely to the semantic conflict between indefinite hab and the definiteness of the target in relatives, clefts, and topicalizations. Such semantic conflict would not explain the ungrammaticality of the wh-question in (54), nor the ungrammaticality of such clefts and topicalizations with indefinite targets, as shown in (ii):

⁽ii) a. Hann heldur að það búi tröll á Íslandi.

^{&#}x27;He thinks that there live trolls in Iceland.'

b. *pað er tröll, sem hann heldur ad það búi _____ á Íslandi 'It is trolls that he thinks that there live in Iceland.'

 ^{*}Tröll heldur hann að það búi _____ á Íslandi.
 'Trolls thinks he that there live in Iceland.'

The reason for the ungrammaticality of (54)–(57) and (iib,c) seems to be functional rather than semantic. If the function of *There* Insertion in Icelandic is in part to postpone new information, then perhaps this function conflicts with the function of Clefting and Topicalization, rules that front this same information.

proceeds as follows under trace theory:

(59) a. einhver vera hjálpað honum af △ NP Postposing 'someone be helped him by △'
b. t vera hjálpað honum (af einhverjum)
c. Honum, t vera hjalpað t_i.

Now suppose that this sentence is embedded, and *honum* is extracted on a later cycle to produce (60):

- (60) a. Hverjum, heldur þú að t, t hafi verið hjálpað t,? who-dat. think you that has been helped 'Who do you think has been helped?'
 - b. $petta er maðurinn_i$, sem ég held að t_i t hafi verið hjálpað t_i . this is man-the that I think that has been helped 'This is the man who I think has been helped.'

Note that there are not one but two traces adjacent to the COMP $a\delta$, either of which would violate the filter (68). Since $ba\delta$ Deletion can apply only once per S to remove a trace (and NP-node), the other trace will remain, violating (68) and wrongly predicting that the sentences in (60) should be ungrammatical in Icelandic. We note further that there is no evidence that $ba\delta$ Insertion ever applies to cover either trace, since the following sentences are both ungrammatical:

- (61) a. *Hverjum heldur þú að það hafi verið hjálpað? 'Who do you think that there has been helped?'
 - b. *þetta er maðurinn, sem ég held að það hafi verið hjálpað. 'This is the man, that I think that there has been helped.'

Of course, this particular problem for the surface filter can be avoided by assuming that the preposing of oblique NPs is a subject-substitution rule; then it would remain only to explain why the new subject is in the original oblique case rather than in the nominative.

4.3. The Real Function of There Insertion in Icelandic

At this point, it is clear that Er or $pa\delta$ Insertion cannot be formulated in such a way that it can be used to explain the violations of filter (68) in either Dutch or Icelandic. So the remark in C&L that there is a "reasonable alternative analysis" cannot be substantiated, and we can conclude that Dutch and Icelandic constitute real counterexamples to the universality of (68). An interesting problem remains, however: what is the function of There Insertion in the various Germanic languages? As is clear from the given data, There Insertion in Icelandic and Dutch A is quite different from There Insertion in English. Let us consider Icelandic first, since the facts are more straightforward there than in Dutch. The simplest way to formulate There Insertion in Icelandic is to say that $pa\delta$ is inserted whenever a subject has been removed from initial position by an intra-

sentential rule (such as Indefinite NP Movement), and nothing else has been fronted. Stated in this way, it seems a completely ad hoc condition on the application of *There* Insertion. However, its motivation lies in the following fact about Icelandic syntax: Icelandic has a strict Verb-Second Constraint (V/2) that applies to all tensed clauses, embedded as well as main. This is illustrated in (62)–(64).

- (62) a. Ólafur var farinn til Íslands í dag. Olaf was gone to Iceland today 'Olaf went to Iceland today.'
 - b. Í dag var Ólafur farinn til Íslands.
 - c. *Í dag Ólafur var farinn til Íslands.
- (63) a. Hún sagði að Ólafur væri farinn til Íslands í dag. she said that Olaf was gone to Iceland today. 'She said that Olaf had gone to Iceland today.'
 - b. Hún sagði að í dag væri Ólafur farinn til Íslands.
 - c. *Hún sagði að í dag Ólafur væri farinn til Íslands.
 - d. *Hún sagði að Ólafur til Íslands í dag {farinn yæri væri farinn}.
- (64) a. Hún sagði að það hefði verið dansað í gær. she said that there had been danced yesterday 'She said that there had been dancing yesterday.'
 - b. Hún sagði að í gær hefði (* það) verið dansað.

The facts about word order are clear. But how can we ensure that the verb will be in second position in surface structure? In the theoretical framework of C&L, the transformational rules of core grammar are unordered and optional. In such a framework, V/2 must obviously be stated as a surface structure filter rather than as conditions on the various reordering transformations. We agree that a surface constraint seems to be a natural way of expressing this fact about Icelandic word order; note, however, that the simplest statement of V/2 is as a single positive template.¹⁰

The function of $ha\delta$ in Icelandic syntax becomes clear: it serves simply to satisfy the Verb-Second Constraint. Icelandic syntax contains several rules that can postpose subject NPs, thus creating outputs that would violate the Verb-Second Constraint; $ha\delta$ Insertion saves those derivations. If, however, a fronting rule of any kind applies, moving some other constituent to initial position, there is no need for $ha\delta$ Insertion to

We think that a positive filter is the more perspicuous account of V/2. But as the reformulation in (i) shows, the canonical format proposed in C&L does not in itself make any empirical claim about the kind of linguistic phenomena that can be described by negative as opposed to positive output filters.

¹⁰ A positive template does not meet the canonical negative format for filters suggested by C&L (p. 488), but as Henk van Riemsdijk and Joan Bresnan have pointed out to us, one can easily reformulate a positive filter as a negative one, given the possibility of "unless"-conditions. One possible reformulation is given in (i), where C is any constituent other than a finite verb.

⁽i) V, unless in the context [s C ____...]

apply. Thus (53b) and (64b) are ungrammatical with $ha\delta$. The $ha\delta$ of $ha\delta$ Insertion never undergoes Subject-Verb Inversion in Icelandic, even in direct questions:

(65) Hvað er (*það) á jörðinni? 'What is (there) on the ground?'

This suggests that the simplest grammar of Icelandic contains only a $pa\delta$ Insertion rule, and no $pa\delta$ Deletion rule. But without an independently motivated rule of $pa\delta$ Deletion, there is no justification for positing a Trace Deletion rule to account for the violations of filter (68).

4.4. An Immediate Consequence of the V/2 Constraint

Note that those clauses with extracted subjects shown in (17)–(22) violate the Verb-Second Constraint as well as filter (68). The embedded clauses are verb-initial rather than verb-second. Yet these are clauses in which one would expect V/2 order. If a nonsubject NP is extracted from an embedded clause, then V/2 is the only grammatical order, as illustrated in (66):

- (66) a. Hverjum heldur þú að [s Ólafur hafi hjálpað ___]? who-dat. think you that Olaf has helped? 'Whom do you think that Olaf has helped?'
 - b. *Hverjum heldur þú að [s hafi Ólafur hjálpað ____]?

Only in the case of extracted subjects is the verb in clause-initial position. The explanation is, we think, clear: the traces of the extracted subjects must count as filling first position in the embedded clause. If the traces left by Wh Movement are visible to surface filters, then these clauses will not violate V/2, and we can maintain V/2 as a generalization about Icelandic word order. This solution leads to a contradiction for anyone who wants to maintain the universality of filter (68): deleting subject traces will not work because the very traces that violate filter (68) are needed to satisfy the V/2 filter. Clearly the grammar of Icelandic cannot contain both surface filters; since V/2 is so much more intuitive and simple, surely it is the filter of choice.

We conclude that, if the correlation stated in (2') is valid, it does not follow from trace theory.

5. Another Problem for Trace Theory

Note that this account of *There* Insertion in Icelandic is inconsistent with the proposal that traces are always covered (or preceded and commanded 11 by their binding NP) during a derivation. It has been claimed by proponents of trace theory that this metatheoretical condition on the proper binding of traces in surface structure explains why

¹¹ Fiengo's definition of proper binding required only linear precedence (1977, 45). Refining the condition on proper binding to mention the notion c-command (see C&L, p. 459) will not resolve the problems pointed out in this section. This is particularly obvious in the case of impersonal passives with overt agent phrase such as (31). The deep subject is located in the by-phrase in surface structure, a position that does not c-command the subject trace.

the insertion of *there* is apparently obligatory in English when an indefinite NP-subject has been postposed; namely, *There* Insertion removes a trace that would otherwise be improperly bound. (See Fiengo (1977, 47).) This explanation is supposed to be universally valid; but our data show this not to be the case in Icelandic. We will now demonstrate that *það* does not cover the traces left by such clause-bounded rules as Indefinite NP Postposing.

Consider a sentence with an indefinite subject such as (67a):

- (67) a. Mikill snjór var á jörðinni í gær. much snow was on ground-the yesterday 'Much snow was on the ground yesterday.'
 - t var mikill snjór á jörðinni í gær.
 - c. Í gær t var mikill snjór á jörðinni.

First, we postpose the indefinite subject, leaving a trace behind, as shown in (67b); next we front the PP $i g \alpha r$ 'yesterday', as shown in (67c). If we assume that movement rules are structure-preserving, then the PP does not cover the trace of the subject, which is now an improperly bound trace, since it is not preceded and commanded by its NP. But, as we saw in example (40), $ba\delta$ cannot be inserted when some constituent precedes the verb, as is the case in (67c).

Now suppose that we drop the structure-preserving requirement, and allow PP-fronting to cover subject traces. There are still cases of NP-preposing that cannot cover subject traces; for example, Topicalization. Andrews (1976) showed that Raising distinguishes between two kinds of initial NPs in Icelandic: that is, it distinguishes between the outputs of Topicalization and Passive. Consider a verb like *hjálpa* 'help' that takes dative objects, as in (68a):

- (68) a. þeir hjálpuðu bróður þínum. they helped brother your 'They helped your brother.'
 - b. Bróður þínum hjálpuðu þeir. (Topicalization)
 - c. Bróður þínum er hjálpað. (Passive) brother your is helped
 - 'Your brother is helped.'

The outputs of both Topicalization and Passive applied to (68a) have dative NPs in clause-initial position, as shown in (68b) and (68c), respectively. If we embed these under a raising verb, as shown in (69), we find that only the passivized NP can be raised:

- (69) a. *Ég tel bróður þínum hafa þeir hjálpað.
 - I believe your brother to have they helped
 - b. Ég tel bróður þínum hafa verið hjálpað.
 - I believe brother your to have been helped
 - 'I believe your brother to have been helped.'

This difference with respect to Raising could be accounted for by saying that Passive is a subject-substitution rule, 12 but Topicalization is not; that is, Passive, but not Topicalization, covers the trace of a postposed subject.

Now suppose that both Indefinite NP Postposing and Topicalization apply in the same sentence, as illustrated in (70):

(70) a. [margir vina minna] hjálpuðu bróðir þínum many friends mine helped brother yours 'Many of my friends helped your brother.'

b. t_i hjálpuðu [margir vina minna]_i bróður þínum

c. bróður þínum t_i hjálpuðu [margir vina minna]_i

If only Indefinite NP Postposing applies to (70a), then hab will be inserted to fill first position, generating (71), which is grammatical.

(71) það hjálpuðu margir vina minna bróður þínum.

But if Topicalization applies to the dative object in (70b), generating (70c), then hab is not needed to satisfy V/2, and hence it cannot be inserted to cover up the subject trace, either before or after the verb, as illustrated in (72):

(72) Bróður þínum (*það) hjálpuðu (*það) margir vina minna.

Finally, note that the subject trace in (70c) presents problems for V/2 as well, if V/2 is stated as a surface filter. If the traces left by Wh Movement are visible to the V/2 filter, then what about the trace in (70c)? Either Subject-Verb Inversion applies vacuously to traces, or more likely, intrasentential rules (the NP-movement rules of Chomsky's framework) do not leave traces that are visible to surface filters, in contradistinction to Wh Movement, an intersentential rule.

6. Speculations on Dutch er

If V/2 gives us a satisfying account for *There* Insertion in Icelandic, it is somewhat less satisfying for Dutch, where the situation seems quite unstable. A well-founded proposal would require some diachronic investigation. If we compare Dutch B and Dutch A, we

¹² As noted in section 4.2, there may be some question as to whether or not passivization of nonaccusative objects is a subject-substitution process, but it is clear that Topicalization is not subject-creating.

¹³ We have not discussed the difference between stating Verb-Second as a surface constraint and stating it as a cyclic well-formedness constraint that must be satisfied at the end of every S-cycle. Although we believe the latter view to be especially attractive, the cyclic constraint is equivalent to the surface filter if only intersentential rules leave traces to count as filling first position. For some discussion of the notion of cyclic well-formedness, which goes back to the kernel sentences of *Syntactic Structures*, see Bach (1976). It is interesting to note that sentence stress is another aspect of linguistics that was once considered to be a surface phenomenon, but which has been shown to be accounted for by an end-of-the-cycle rule of stress assignment (Bresnan (1971)). This suggests that there may be a special category of end-of-the-cycle rules that might replace surface filters.

see that they differ in that Dutch B seems to require overt surface subjects, whereas Dutch A does not. The situation in Dutch A can be compared to German (see Breckenridge (1975)), where *There (Es)* Insertion is only allowed in main clauses when the Verb-Second Constraint would otherwise be violated (it is only relevant in main clauses since the word order in embedded clauses is SOV). If in Dutch the function of *There* Insertion is evolving from a syntactic device used to satisfy the Verb-Second requirement, as in standard German and Icelandic, to a device used to satisfy a requirement that tensed clauses have an overt surface subject, as in English, then the situation in Dutch A with optional *There* Insertion can be seen as an intermediate stage in the transition from one to the other. A proposal along these lines is made in Haiman (1974). Obviously this suggestion requires further investigation, but it seems quite plausible. Note that in Dutch B, *Er* Insertion cannot be considered a surface property of the complementizer system, because *Er* Insertion is obligatory even if nonadjacent to the COMP as in (26), *Gisteren werd er door het hele dorp gedanst en gezongen*.

7. Conclusion

Our study of the many violations of filter (68) in Icelandic and Dutch led us to a study of the role of *There* Insertion in these languages as contrasted with English. We have shown (i) that the correlation between requiring overt surface subjects and lacking a rule of Subject-Pronoun Deletion cannot be maintained in the form given in C&L (71), (ii) that the weaker correlation between obligatory dummy subjects and the FSC does not follow from trace theory, and (iii) that trace theory also neither accounts for nor explains in a natural way the function of *There* Insertion. Hence, the claim that (68) is a universal filter is falsified on the basis of the many counterexamples in these two languages.

The evidence does not support C&L's hypothesis that "surface filters are a device for expressing properties of the complementizer system" (p. 444); it does support the more traditional view that surface filters are typically word order templates. To the filters for clitic pronouns discussed by Perlmutter we can add the word order constraints

¹⁴ There are exceptions to the FSC even in English, e.g. comparatives, as pointed out in Bresnan (1977). Languages seem not to be subdivided into two distinct types (as claimed by Perlmutter (1971, ch. 4)), according to whether or not they require a surface subject in each tensed clause, but rather, these two types are the extremes of a continuum. We agree with Haiman (1974) that there has been in Germanic an evolution from optional subject pronouns to obligatory personal pronoun subjects only to obligatory subjects of all kinds; optional insertion of dummy subjects became obligatory, and this led to the development of the FSC. However, in contrast to Haiman's approach, we have come to think that the diachronic development results from surface analogy rather than from rule reordering. In a system of optional, unordered rules augmented with surface filters, the situation in Dutch A seems maximally simple; however, it appears to be only a transitory situation. If one looks at the surface output, this transitoriness is easy to understand: there is an irregularity in that a subject is overtly present in most sentences, but in a few cases it is not. If one considers transformational rules only, the reason for the evolution is much less clear; the change from optional to obligatory Er Insertion, or the intrinsic ordering of Er Insertion with respect to fronting rules can only be seen as a complication of the transformational component. Furthermore, rule reordering cannot account for the development of the FSC if Er Insertion is not directly involved in the derivations of such sentences, as we have argued here.

characteristic of Germanic. In Dutch B, however, the presence of er has to be explained very much as in English, i.e. as a requirement on the filling of subject nodes at the surface. The exact formulation of this requirement needs further investigation, but it appears to be an instance of the second category of filters proposed by Perlmutter. We do not exclude the possibility that Verb-Second could be achieved by appropriate conditions on reordering transformations; however, we have shown that in the theoretical framework of C&L, constraints on word order and surface-filled nodes are descriptively more adequate than filter (68).

C&L have succeeded in focusing renewed interest on the role of filters in grammar. It is clear that linguistic theory must develop principled limits on the possible types and uses of surface filters if it is to restrict the power of grammar without sacrificing descriptive and explanatory adequacy. From the previous discussion it seems clear that universal "properties of the complementizer" are not the most promising place to look. One can expect to discover a typology of surface filters, but devices as specific as filter (68) are unlikely to be universal.

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