Interrogative Discharge and the Wh-criterion in Basque

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0. Introduction*

This article presents evidence for a view of pied-piping as a mechanism whereby a [+wh] operator 'discharges' its [wh] feature on to the phrasal category within which it appears. This view, which seems rather harmless and inocuous, turns out to have important empirical consequences in a language with clausal pied-piping like Basque. I will try to show that a wh-word in SPEC of CP which has discharged its operator feature ceases to function syntactically as a wh-element. In particular, it will no longer be visible for the Wh-criterion. This will be shown in two ways. First, discharged wh-words can appear with [-wh] complements such as declarative clauses and nominalized tenseless clauses, even though these complement types are not otherwise compatible with [+wh] elements. Second, discharged wh-words are incompatible with [+wh] complements. The Basque data are particularly telling in this context not only because of the existence of clausal pied-piping, but also because of the different phonological realizations of the [+/-wh] complementizers.

The article is organized as follows. Section 1 presents the interaction between feature discharge and interrogative selection. 1.0 gives some data on the distribution and form of [+wh] and [-wh] complementizers. Section 1.1 presents the first paradigm I will be trying to account for. After reviewing in 1.2 the case for clausal pied-piping, argued for more extensively in Ortiz de Urbina (forthcoming), 1.3 examines the interaction between [+wh] feature discharge and Rizzi's (1991) Wh-criterion. Section 2 addresses the second paradigm, showing how [+wh] words are excluded from embedded nominalized clauses if they take narrow scope, but are fully acceptable if they are construed as having wide (root) scope. An account of this paradigm is given which relies also on the interaction between feature discharge and the wh-criterion.

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1. Complementizers and the wh-criterion

Basque possesses two main complementizers, *-(e)la* and *-(e)n*. The first one appears in declarative complements, while *-(e)n* shows up in a series of embedded contexts like the ones in (2): indirect questions, adverbial clauses, subjunctive complements, negative completives, relative clauses, etc.:

(1) [Jon bihar etorriko d-ela] esan dut
Jon tomorrow come aux-comp said aux
I've said that Jon will come tomorrow

(2) a. [Jon bihar etorriko d-en] galdetu dut
aux-comp asked aux
I've asked whether John will come tomorrow

b. [Jon datorr-en-ean] esango dizut
comes-comp-in tell aux I'll tell you when John comes

c. [Etor dadi-n] nahi dut
come aux-comp want have
I want him to come (=that he comes)

d. Ez dut uste [Jon bihar etorriko d-en- ik]
neg aux think aux-comp-partitive
I don't think that John will come tomorrow

e. [Etorri d-en] gizona Jon da
come aux-comp man Jon is The man that has come is Jon

It looks then that the shape of the complementizer is sensitive to the presence of an operator, since arguably all of the subcases in 2 involve some sort of operator in the embedded clause. In this article I will concentrate only on interrogative complements like (2a) and will consequently refer to *-(e)n* as a [+wh] complementizer for ease of reference.

Let's examine interrogative complements like the one in (2a). A more complete pattern, with both yes/no and wh-questions, can be seen in (3):

(3) a. [Jon bihar etorriko d-en] galdetu dut
aux-comp asked aux
I've asked whether John will come tomorrow

b. [Bihar nor etorriko d-en] galdetu dut
tom. who
I've asked who will come tomorrow

Where no overt wh-word occurs, the complementizer *-(e)n* signals the presence of a yes/no embedded clause. We can assume, along the traditional lines, that an empty yes/no operator occupies the embedded SPEC position. Embedded wh-questions like the one in (3b) include both the interrogative complementizer and the wh-word. I will assume, again following traditional analyses, that wh-words contain a [wh] feature.

I will also assume that the relation between the head C and its specifier is ruled by Rizzi's (1991) wh-criterion, stated as in (4):

(4) a. A wh-operator must be in a Spec-head configuration with a [+wh] head.
b. A [+wh] head must be in a Spec-head configuration with a wh-operator.

For our purposes here, the only head I will consider will be C. The criterion requires the existence of two elements independently bearing the [wh] feature specification. In embedded clauses the [+wh] feature in the embedded C is licensed by virtue of being subcategorized from the matrix clause, while in root clauses the wh-specification is independently anchored to the INFL-head. The [+wh] feature in SPEC is supplied by the wh-element. So in (3) we find a [+wh] complementizer *-(e)n* associated with a covert or overt [+wh] operator in its specifier. Notice again that while in many languages the two [+wh] elements may not be phonetically overt, there is no such 'doubly-filled COMP' constraint in Basque, and the interrogative complementizer must cooccur with the overt wh-word.

1.1. *[+/-wh] verbs and clausal pied-piping*

The paradigm I'll try to analyze here is the following one:

(5) a. [Nor etorriko d-ela bihar] uste du Jonek?
who come aux-ela tom. think aux Jon
'that who will come tomorrow does Jon think?'

b. *[Nor etorriko d-ela bihar] uste du Jonek.
Jon think's who will come tomorrow

(6) a. *[Nor etorriko d-en bihar] galdetu duzu?
who come aux-en tom. asked aux
'Who will come tomorrow have you asked?'

b. [Nor etorriko d-en bihar] galdetu duzu.
You have asked who will come tomorrow

The (b) examples follow the regular description I gave above: where the scope of the interrogative element is the embedded clause, a verb selecting an interrogative complement like *uste izan* 'think' cannot have an operator in the embedded SPEC. This would violate clause (a) of the Wh-criterion, since the complementizer is [-wh] *-(e)la*, selected by the verb. On the other hand, a [+wh] verb like *galdetu* 'ask' requires a [+wh] complementizer which in turn, by (4b) must be associated with an operator in SPEC, as in (6b). The surprising patterns are the ones in (5a) and (6a).

In (5a) the embedded wh-word seems to have scope over the entire structure, since this is a root question. Still, *nor* 'who' occupies the embedded SPEC,CP position. Evidence for this comes from the fact that we find a verb-second effect between *nor* and the embedded verb. Such adjacency occurs between elements within

the same CP in Basque, as in neighboring languages. Thus, the intervening element in (7) produces an ungrammatical result:

(7)*[Nor *bihar* etorriko d-ela] esan diozu Mireni?

So, a first problem is why and how an embedded wh-word can get root scope, while remaining in the embedded context of a [-wh] verb like *uste izan* 'think' in (5a). A second problem is why the same may not occur in the same structure with a [+wh] verb like *galdetu* 'ask', as the ungrammaticality of (6a) indicates. (6a) is acceptable as a yes/no question on the matrix, but not in the interpretation relevant here, parallel to (5a). Finally, a third problem is why (5a) is acceptable even though a wh-word in the embedded SPEC cooccurs with the [-wh] complementizer *-(e)la*, a circumstance which does not occur anywhere else in Basque and which looks like a violation of clause (a) of the wh-criterion.

1.2. *Getting matrix scope from an embedded clause at S-structure*

The wh-word *nor* in (5a) occupies the SPEC of the embedded clause, as shown by the existence of the adjacency phenomenon with the verb. Now, there is a well-known asymmetry of pied-piping positions between specifiers in general and complements (leaving complements of prepositions aside), as shown in (8) and (9):

(8) a. Whose problem did he solve? b. How tall is she?
c. How far did you get?

(9) a. *The problems of what did you solve? b.*Proud of whom is he?
c. *Far from where did she go?

Wh-words in specifier positions of different phrasal categories, like the ones in (8), seem, quite generally, to be able to pied-pipe the whole phrasal category. This contrasts with complement wh-words like the ones in (9), which cannot act as pied-pipers. SPEC of CP appears to be a gap in this pattern, since a wh-word in that position seems not to be able to pied-pipe CP:

(10) a. *Who met John did Mary say? b. *What John said do you know?

Principled accounts of pied-piping, like Webelhuth's (1989) analysis, leave SPEC of CP as an accidental gap in the set of pied-piping positions, ruled out by independent factors not directly related to pied-piping. I will also support this view and will claim that this is precisely the type of pied-piping one finds in Basque. I will claim that structures like (10a) are acceptable in Basque, and that (10b) is ruled out in this language not because of any general constraint against pied-piping of CP, but as a violation of clause (b) of the Wh-criterion. (I won't have anything to say here as to why (10a) is unacceptable in English). Assume then that SPEC,CP is a pied-piping position. Then in (5a) the embedded clause occupies the matrix SPEC-CP position. A residual verb second phenomenon will also occur between the embedded clause in the matrix SPEC,CP and the matrix verb, so that any element intervening will produce an ungrammatical result:

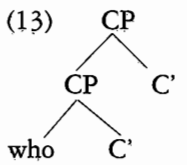
(11) *[Nor etorriko d-ela bihar] *zuk* uste duzu?
who come aux-ela tom. you think aux

Further evidence which shows that the whole embedded clause in (5a) is indeed in the specifier position comes from the ability of the pied-piped clause to undergo long wh-movement. Since operators can move from SPEC to SPEC, the expectation is that the embedded clause behaving like an operator also will, and this expectation is actually met, as in (12):

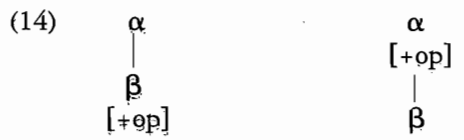
(12) [Nor etorriko d-ela bihar] esan du Mirenek entzun du-ela Peruk?
said aux Mary heard aux-ela Peter
'that who will come tomorrow has Mary said that has Peter heard?'

In (12), the whole embedded clause, complement of *entzun* 'hear', has moved first to the SPEC of the intermediate clause and then to the root SPEC, triggering adjacency with the verb *esan* 'say'.

If clausal pied-piping is involved here, the relevant structure after the embedded CP has moved is as in (13):

(13)


Still, the two CPs are not segments of the same category produced by adjunction: the upper one corresponds to the matrix clause, while the lower one is the embedded CP. Therefore, the wh-word does not actually c-command anything within the higher CP, and something else must be said to explain why (5a) is a root question. In order to account for this, I will detail the type of mechanism I am assuming as underlying pied-piping, a purely descriptive term. In trying to account for the operator-like behavior of the maximal projection undergoing syntactic movement, Webelhuth and others have assumed a percolation mechanism, whereby an operator feature of α (usually [wh], but also [negative], as discussed in Ortiz de Urbina forthcoming) is trasmitted up to the category β in certain configurations (here from the specifier position):

(14)


Let us assume that once β discharges its operator feature to α, the former loses its operator status, so that it is no longer syntactically active. With this assumption in mind, let us return now to (13). The embedded CP has been moved to the matrix SPEC position because the wh-word has discharged its operator feature onto it, so now the embedded CP bears this operator feature and behaves as such. This means that the [wh] element in (13) is not *nor* but CP. Since the latter does c-command

everything in the root clause, like any other element in SPEC,CP does, then we can understand why (5a) is a root question.

1.3. *Percolated features and the Wh-criterion*

Let's address now the two remaining problems, that is, why a wh-word in SPEC;CP in (5a) may cooccur with the [-wh] complementizer *-(e)la* without violating the wh-criterion and why clausal pied-piping is excluded from selected interrogative complements. (5a), repeated here, exemplifies the first problem:

(5) a. [Nor etorriko d-ela bihar] uste du Jonek?
who come aux-ela tom. think aux Jon
'that who will come tomorrow does Jon think?'

Given the feature percolation mechanism described above, we can already understand this problem: if the [wh] feature has been discharged onto CP, the wh-word *nor* 'who' no longer works as a [wh] element in the syntax and the first part of the wh-criterion is not applicable. The complementizer can then be *-(e)la*, [-wh] as required by the matrix [-wh] verb *uste izan* 'think'. This apparent SPEC-head mismatch will occur in Basque only if the wh-word has lost its operator feature, that is, only in clausal pied-piping structures, which are then only an apparent exception to the distribution of this complementizer.

Turning now to the remaining problem, sentence (6a), repeated here, shows that a wh-operator in the complement of a [wh] verb like *galdetu* 'ask' can not pied-pipe the embedded clause:

(6) a. *[Nor etorriko d-en bihar] galdetu duzu?
who come aux-en tom. asked aux
'Who will come tomorrow have you asked?'

One analysis I would like to reject could claim that after clausal pied-piping, a trace is left by the embedded complement clause moved to SPEC. This trace would be [-wh], as generally assumed, and would not match the requirements of the matrix [+wh] verb. This analysis assumes that the selectional restriction of the matrix is checked against the trace once the complement with the head C has been removed.

Still, other applications of Move-α leave traces, presumably also [-wh], but do not induce ungrammaticality. Thus, if scrambling results from an S-structure application of Move-α, as assumed by Saito (1985), the structure of an SVO pattern in a head-last SOV language like Basque would be as in (15), where the trace is coindexed with the object:

(15) S t V O

This SVO order is quite common with heavy objects such as complement clauses, so the structure of a clause like (16a) will be as in (16b):

(16) a. Mikelek galdetu du [nor etorri d-en]
Mikel asked aux who come aux-en
Mikel has asked who has come

b. Mikelek t galdetu du [nor etorri den]

The object argument of *galdetu* 'ask' appears removed from its canonical position to the left of the verb, but the presence of a [-wh] trace in the argument position does not clash with the selectional requirements of the matrix verb, contrary to what this analysis of (6a) predicts. (Of course, one could claim that at LF some sort of reconstruction substitutes the object clause into its canonical position, but, crucially, the level where the verb-complement restrictions have to be met here is S-structure, that is, the level where movement takes place in Basque).

Another piece of evidence against this analysis comes from the fact that foci in Basque share the same distribution as wh-words. They can also pied-pipe the clause that contains them, as in (17):

(17) a. [JON etorri d-en] galdetu du Peruk
Peter
Peter has asked whether JON has come

b.*[JON etorri d-en] *Peruk* galdetu du

Here the embedded complement of the [wh] verb *galdetu* has been pied-piped by the focus JON, leaving a [-wh] trace which, contrary to the predictions of this analysis, does not yield a violation of the selectional restrictions of the matrix verb.

I want to claim that the same assumptions about the percolation of operator features made above can help explain this third problem, and that (6a) is ruled out by the wh-criterion. For percolation to occur, the wh-word in the embedded SPEC, *nor* must pass on its [wh] feature to the maximal projection CP it specifies, thereby becoming, to all syntactic effects, [-wh]. But then this would not agree with the [+wh] complementizer *-(e)n*, violating clause (b) of the Wh-criterion. Only a [-wh] *-(e)la* complementizer is compatible with an operator in SPEC,CP that has discharged its [wh] feature onto CP, but then that complementizer would not be compatible with a [+wh] verb like *galdetu* 'ask'. There is therefore nothing incompatible between pied-piping per se and [+wh] verbs. Where, as in (20a), the percolated operator feature is that of a focus, clausal pied-piping may take place. It is rather percolation of the feature [+wh] from a SPEC,CP position that will make SPEC incompatible with a selected [+wh] head C. On the other hand, the 'neutralized' operator will be perfectly compatible with a [-wh] complementizer, as in (5a).

2. Feature discharge in nominalized clauses

In this section, I will show that even though wh-words seem to be excluded from nominalized clauses in Basque, they are acceptable in a wide scope reading. I will claim the narrow scope reading is excluded by clause (a) of the wh-criterion under the assumption that nominalized clauses are licensed by a modal operator. The wide scope reading, on the other hand, will result from feature discharge in a pied-piping structure.

2.1. *Nominalized complements and modal operators*

Tenseless nominalized clauses in Basque are formed by attaching the suffix *-t(z)e* to the verbal root. Arguments within the nominalized clause, including subjects, are

marked in the same way as in tensed clauses. The nominalized verb bears a case ending corresponding to the function of the embedded clause in the matrix, so the tenseless clause is case-marked like regular nominal arguments. An example is given in (18) and (19). The verb *eritzi* 'consider' assigns dative case to the subject of its small clause complement, as in (18):

(18) Horr-i egoki deritzot
that-dat appropriate consider I consider that appropriate

The subject of the secondary predicate may also be a tenseless clause, as in (19a). The nominalized verb will then be marked dative, and its subject and object are marked following the usual ergative pattern in Basque. (19b) shows that tensed complements are barred from the same position, indicating that the distributional properties of nominalized clauses pattern with DPs rather than with CPs:

(19) a. [Zuk hori esa-te-a-ri] egoki deritzot
you that say-imp-det-dat
I consider your saying that appropriate

b. *[Zuk hori esan dezazu-la(-ri)] egoki deritzot
say aux-comp
I consider it appropriate that you say that

I will focus on complement clauses, where both tensed and tenseless forms may occur. When complement types of individual verbs are examined, we find that in most cases finite indicative clauses and nominalizations are in complementary distribution. This is exemplified below with verbs belonging to different semantic classes:

(20) **Epistemic verbs**: *uste izan* 'think', *sinistu* 'believe'

a. [Jonek liburua irakurri du-ela] sinisten dut
read aux-comp believe aux
I believe that John has read the book

b. *[Jonek liburua irakur-tze-a] sinisten dut
read-imp-det

(21) **Declarative verbs**: *esan* 'say', *adierazi* 'declare':

a. [Jonek liburua irakurri du-ela] esan du
read aux-comp say aux
He has said that John has read the book

b. *[Jonek liburua irakur-tze-a] esan du

(22) **Emotive factive verbs**: *harritu* 'surprise', *gorrotatu* 'hate'

a. *[Jonek liburua irakurri du-ela] gorrotatzen dut
aux-comp hate aux
'I hate that John has read the book'

b. [Jonek liburua irakur-tze-a] gorrotatzen dut
I hate John reading the book

c. [Jonek liburua irakurr(i) deza-n] gorrotatzen dut
read aux(subj)-comp
I hate John reading the book

(23) **Volitive verbs**: *nahi izan* 'want', *desiratu* 'desire'

a. *[Jonek liburua irakurri du-ela] desiratzen dut
read aux-comp desire aux
'I desire that John has read the book'

b. [Jonek liburua irakur-tze-a] desiratzen dut
I desire for John to read the book

c. [Jonek liburua irakurr(i) deza-n] desiratzen dut
aux(subj)-comp
I desire for John to read the book

(24) **Order and influence verbs**: *agindu* 'order', *eskatu* 'ask'

a. *[Jonek liburua irakurri du-ela] eskatzen du
aux-comp ask aux

b. [Jonek liburua irakur-tze-a] eskatzen du
ask aux
He asks for John to read the book

c. [Jonek liburua irakurr(i) deza-n] eskatzen du
aux(subj)-comp
He asks that John read the book

The preceding examples show that it is usually verbs selecting tensed subjunctive complements that may occur with nominalized tenseless forms.[1] Those verbs that select indicative complements do not admit nominalized forms. Verb classes taking one type of complement or the other pattern very much like their counterparts in Romance languages like Spanish, where assertive verbs (epistemic and declarative) select indicative complements and the verb classes which select subjunctive are quite similar to the Basque ones that admit nominalized complements in the preceding examples (and subjunctive tensed complements).[2] The same distribution in terms of predicate classes can be observed with adjectival predicates. Thus, the epistemic predicate *egia izan* 'be true' takes indicative complements and, given the complementary distribution observed above, it is not acceptable with nominalized complements (25). The opposite holds true for emotive predicates like *harrigarria izan* 'be surprising' in (26):

(1) I am not considering here other types of complements with quirky case marking, where the nominalized form appears in cases such as inesive (*-tzen*) or allative (*-tzera*). These are control structures and will not be dealt with here.

(2) Goenaga (1985), following P. Menzel, claims tensed indicative complements would be subcategorized by verbs taking [+propositional] complements, while nominalized clauses would be selected as [+action] complements.

(25) a. Egia da [Jonek liburua irakurri du-ela]
true is aux(ind)-comp
It is true that John has read the book

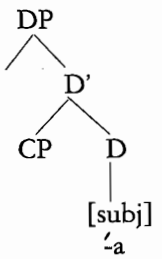
b. *Egia da [Jonek liburua irakur-tze-a]

(26) a. *Harrigarria da [Jonek liburua irakurri du-ela]
surprising is aux(ind)-comp

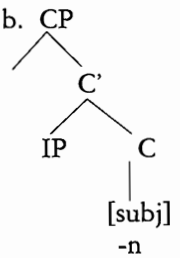
b. Harrigarria da [Jonek liburua irakur-tze-a]
It is surprising for John to read the book

Intuitively, subjunctive complements are more closely linked to their matrix predicates than complements to assertive verbs, which are well-known to be quite independent from them. Subjunctive complements are often claimed to be dependent on the matrix predicate either because of their tense orientation or because of the presence of an empty modal-like operator in the head C (Kempchinsky 1986, Pesetsky 1990). The presence of a modal-like C head is helpful in trying to explain the fact that, apparently, mood selection is not a head-to-head relation as other selectional relations, since a matrix predicate seems to skip over the C and require a particular mood in INFL. The assumption of an intervening C which is selected by V and in turn selects INFL helps solve this problem. As Kempchinsky notes, this analysis receives morphological support from the existence of special subjunctive complementizers in some languages.[3] I will therefore follow this path and assume that non-assertive predicates select an operator (or perhaps a [+subj] operator feature, like [neg] or [wh]) in their propositional complements. Such complements may be nominal (DPs) or clausal (CPs), but in both cases there is an operator feature associated with their head. Nominal complements correspond to nominalizations, which I will assume here have a structure as in (27a); regular subjunctive complements would have the familiar clausal structure in (27b):

(27) a.



b.



2.2. *Tenseless indirect questions*

There is a context where nominalized clauses are not acceptable, namely, indirect questions, as shown in (28):

(3) Even though there are no special subjunctive complementizers in Basque, it is important to notice that the complementizer used in subjunctive complements is often the same one (*-n*) used with complements containing operators: relative clauses, indirect questions, negated complements, temporal clauses, etc. See section 1

(28) a. Ez dakit zein *hautatu*
neg know which choose
I don't know which one to choose

b. *Ez dakit zein *hauta-tze-a*

The question one has to address is why (28b) is ungrammatical. Actually, this fact can be related to a variety of similar restrictions holding on embedded questions. Thus, Kempchinsky (1990) points out that Spanish verbs that subcategorize for subjunctive complements do not have interrogative complements with subjunctive, as shown in (29):

(29) a. Decidí que viajaras a Asturias
decided that travel(subj) to Asturias
I decided that you should travel to Asturias

b. *Decidí [adónde viajaras] I decided where you should travel
where

Similarly, Raposo (1987) notices that inflected infinitives in European Portugues, which resemble Basque nominalizations in distribution and in their ability to license phonologically realized subjects, are excluded in interrogative complements:

(30) * Eu nao sei [quem [eles convidar- em para o jantar]]
I neg know who they invite-agr for dinner
I don't know who they invited for dinner

According to Raposo, (30) is out as a result of the need of the inflected infinitive to receive case in order for it to be licensed. It cannot get case in the embedded tenseless clause because tenseless INFL cannot assign case. On the other hand, it cannot be moved to the embedded head COMP position, a position case-marked by the matrix verb which would have licensed its presence. The reason is that the Doubly filled COMP filter would have been violated: the wh-word would cooccur along with a filled COMP head position. This explanation does not work for Basque, though, since that filter does not apply in this language: tensed indirect questions always contain both a wh-word and a complementizer head (see section 1.0 above). Moreover, that analysis says nothing about the apparently related Spanish pattern in (29). Let us therefore take the alternative approach mentioned above. Following Kempchinsky (1986), we can say that the [+wh] operator selected by the matrix verbs in the structures in question already 'fills' up the head position in CP, excluding other selected operators from appearing (see also Rizzi 1991). In particular, it excludes the modal selection required for nominalized structures to be licensed.

Now, the fact that selected interrogative complements cannot appear in nominalized forms does not imply that wh-elements are totally excluded from them, as the following example shows:

(31) [(Nik Mikeli) zer esa-te-a] gustatuko litzaizuke?
I M.-dat what say-imp-det like aux
What would you like me to tell Michael?

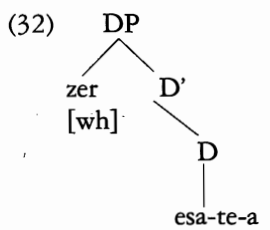
In this sentence, a nominalized complement clause contains the wh-word *zer* 'what', in apparent contradiction with the claim in this section. However, the

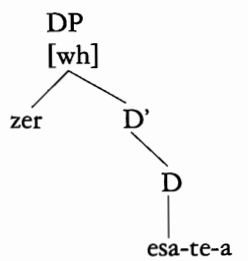
acceptability of (31) does not mean that the subjunctive specification is compatible with a [+wh] feature of the same head. Notice that the verb *gustatu* 'like' does not select interrogative complements, and that (36) is only acceptable as a matrix question, so the sentence is acceptable because the wh-word has scope over the whole sentence, and not only over the embedded clause. Still, the wh-word does not occupy the matrix SPEC,CP, but appears within the embedded clause. As in the case of declarative clausal pied-piping discussed in the previous question, this can be shown by the positional facts. In (31) the wh-word must be adjacent with the lower nominalized verb, not with the main tensed verb, indicating that it occupies a position in the embedded clause.

An explanation in terms of clausal pied-piping and feature discharge would proceed as follows. The main verb selects a subjunctive type of complement, here realized as a nominalization as explained above. No [+wh] feature can be selected on the embedded CP, since that feature is not selected by any governing element and the CP is not a root context where such feature may be independently licensed. Therefore no [+wh] element may occupy the SPEC,CP position, since it would not match the non-interrogative head, violating clause (a) of the wh-criterion. Moreover, the wh-word cannot be in that position here, since it would not have matrix scope and that is the interpretation required in (31).

Now, assume the wh-word has moved to the specifier of DP. Again, it may not remain as such there because the head DP is not [wh] but [subj]. But there is an alternative: the interrogative operator may transfer its operator feature to the matrix DP, since it occupies a standard pied-piping position, namely, that of a specifier. This is illustrated in (32):

(32)





The operator feature of the wh-word is transfered to the maximal projection it specifies, DP. Now the DP itself behaves like an interrogative operator and moves to the usual landing site, SPEC of the matrix CP. This explains a second type of adjacency found in (33), namely, that between the DP and the matrix verb. No element of the matrix may intervene between them; contrast (31), repeated here as (33a), and (33b):

(33) a. [(Nik Mikeli) zer esa-te-a] gustatuko litzaizuke? (=31)

b. *[(Nik Mikelik) zer esatea] zuri gustatuko litzaizuke?
you-dat

In (33b) the matrix argument *zuri* 'to you' appears between the embedded nominalized clause and the matrix verb; the lack of adjacency with the verb in-

dicates that the nominalized clause has not moved to SPEC,CP. This in turn means that the wh-word has retained its operator feature, rather than transfering it to the embedded DP. But such structure is not possible since the [wh] feature is incompatible with the subjunctive operator. Thus, just like with (5a), structures like (31) are only possible if [wh] feature discharge from SPEC,DP to DP takes place, and the DP is adjacent with the matrix verb. Such discharge renders the wh-word invisible to the wh-criterion, so that (31) does not represent a violation of its first clause.

In Section 1, I claimed that clausal pied-piping is not possible in selected [+wh] complements as a consequence of clause (b) of the wh-criterion: after interrogative feature discharge, the selected [+wh] head will not appear in a spec-head configuration with a wh-element in SPEC, accounting for (6a). The same can be said of the tenseless counterpart. Thus, the participial embedded clause in (28) above, repeated here as (34a), with its [+wh] head, is not acceptable with a wide scope interpretation of the wh-word, as in (34b):

(34) a. Ez dakit zein *hautatu* — I don't know which one to choose
neg know which choose
b. *Zein hautatu ez dakizu?

Thus, (34b) is ruled out as a consequence of the same process that makes (31) acceptable, namely, feature discharge in combination with the requirements of the wh-criterion.

The feature discharge analysis is made necessary by the fact that wh-movement takes place at S-structure in Basque. The adjacency facts argue for a position of the wh-word within the embedded clause at the level where the wh-criterion is checked in Basque, that is, in the syntax. Therefore, the relevant scopal facts must derive from some process other than movement. On the other hand, similar facts in languages with LF wh-movement can receive a regular treatment based on extraction of the relevant operator at that level. Thus, Turkish nominalizations exhibit some facts which closely resemble the ones mentioned above. As described in Kornfilt (forthcoming), *-ma* complements seem to be [-wh] and cannot therefore occur in embedded questions, which must then be of the [+wh] *-dik* type:

(35) a. [Parti-ye kim-in gel-diğ-in]-i bil-iyor-um
party-to who-gen come-dik-3sg-acc know-prs-1sg
I know who came to the party

b. *[Parti-ye kim-in gel-me-sin]-i bil- iyor-um
-ma-

Now, this does not mean that *-ma* complements are incompatible with clausemate wh-questions, as (36) shows:

(36) [Parti-ye kim-in gel-me-sin]-e kız- dı-n?
-me-3sg-dat angry-pst-2sg
'Who were you angry that came to the party (i.e. about whose coming to the party were you angry?')

This is only possible if the wh-word takes wide matrix scope, i.e., if this is a matrix question. This seems to indicate that (36) does not violate clause (a) of the wh-criterion, the question being at which level the wh-criterion applies in this language. If wh-movement takes place at LF in Turkish, as seems to be the case, one may assume that the wh-word has moved out of the embedded clause at that level, taking root scope at LF. In the case of Basque, this analysis is barred by the fact that the wh-criterion and the movements to satisfy it must take place in the syntax.

I have tried to show that pied-piping involves a feature discharge mechanism whereby a wh-operator actually 'loses' its syntactic [wh] feature after transferring it to CP. This not only entails that CP will behave as an interrogative element for syntactic purposes, but also that the wh-word will no longer count as such for the wh-criterion. A discharged wh-word will then be compatible with a [-wh] complementizer head, while it will be incompatible with a [+wh] one. A language like Basque with clausal pied-piping in the syntax and different complementizers allows us to check the different scenarios produced by this discharge mechanism.

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