WANNA-CONTRACTION AS RESTRUCTURING

0. INTRODUCTION

The structural conditions that govern the possibility of contracting the sequence *want to* into *wanna* have been widely discussed in the literature, and a number of analyses have been proposed. Here I will explore the hypothesis that *wanna*-contraction is the result of restructuring, in the sense of Rizzi (1982), and I will argue that such an approach offers significant advantages over previous analyses. Section 1 contains a review of some of these previous analyses, while section 2 presents the case for an analysis of *wanna*-contraction in terms of restructuring. Some issues in the learnability of this construction are explored in section 3, and a conclusion and summary are given in section 4.

1. SOME PAST ANALYSES

Perhaps the most well-known analysis of *wanna*-contraction is that of Jaeggli (1980), who follows Chomsky and Lasnik (1978) in positing a rule which states that *want* and *to* may become *wanna* when they are adjacent. Case-marked empty categories are "visible" for this rule, but others are not. This then accounts for the contrast between (1a) and (b).

(1) a. Who do you wanna see?
   b. *Who do you wanna see Bill?

Only PRO intervenes between *want* and *to* in (1a), and since PRO is not Case-marked it does not interfere with the application of the rule. In (1b), on the other hand, the presence of the Case-marked trace of *who* means that *want* and *to* are not adjacent, so contraction is blocked.

The notion of Case that this analysis relies on is of course needed by the grammar independently. What makes the analysis particularly attractive is the fact that the idea of only Case-marked empty categories blocking contraction is a natural (albeit not necessary) one, since the need to receive Case assimilates these elements to the class of overt NPs, which of course also block contraction.

Postal and Pullum (1982) point out, however, that contraction is blocked in some contexts where there is no trace (Case-marked or not) intervening between *want* and *to*. Some examples are given in (2) (italicized sequences are not able to be contracted).

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(2) a. I don’t want to flagellate oneself in public to become standard practice in this monastery.
b. It seems like to want to regret that one does not have.
c. I don’t want anyone who continues to want to stop wanting.
d. One must want (in order) to become an over-effective consumer.
e. I want to dance and to sing.
f. I don’t need or want to hear about it.

Postal and Pullum account for this by means of the restriction in (3).

(3) A contraction trigger V can have a contracted form with infinitival to only if:
   a. to is the main verb of the initial direct object complement of the matrix clause whose main verb is V;
   b. the final subject of the complement is identical to the final subject of the matrix. (Postal and Pullum’s (14))

Essentially, this means that want and to may be realized as wanna when to belongs to the main verb of the complement of want and when the subject of want and the subject of the main complement verb are coreferential (through either subject-controlled Equi or subject-to-subject raising). This clearly prohibits contraction in (2a—d), since in those cases to is not part of the main verb of the complement clause. (2e) is blocked because, Postal and Pullum claim, to here belongs to the main verb of a conjoined clause within the complement. The complement itself has no main verb. In (2f), to is not part of the complement of want, but rather of the complement of the conjoined verb need or want.1 Returning to the examples in (1), we see that (1b) is ruled out because want and see do not have the same subject. (1a) is allowed, in contrast, because the two verbs here do have the same subject.

Although this analysis succeeds in accounting for the data in both (1) and (2), it does lose some of the simplicity and elegance that was attained in Jaeggl’s (1980). Specifically, whereas Jaeggl needs to say only that want and to must be adjacent in order for contraction to occur, Postal and Pullum need to posit the much more complex set of conditions in (3).

What is even more significant is that this set of conditions appears very arbitrary in comparison to Jaeggl’s. It is not clear why the reference of the embedded subject, for example, should affect the possibilities for contraction, whereas in Jaeggl’s analysis it is very clear why the presence of a Case-marked trace should block contraction.

Aoun and Lightfoot (1984) attempt to combine the best of both of these analyses by incorporating the empirical coverage of Postal and Pullum and the conceptual attractiveness of Jaeggl. They claim that contraction arises when to syntactically adjoins to want, and that such adjoinment is only possible when they are adjacent and when want governs to.2 The contrast between the sentences in (1) is thus handled in the same way as in Jaeggl. (2a—d) are ruled out because want does not govern to in those cases. For (2e) and (f), Aoun and Lightfoot adopt what is essentially Williams’ Across-the-Board format for representing coordinate structures, in which the two conjuncts are superimposed on each other. The syntactic movement of to which is necessary to produce wanna in (2e) thus violates the Across-the-Board mode of rule application (or, equivalently, the Coordinate Structure Constraint). (2f) is disallowed because in this representation both need and want are adjacent to and govern to, so to may not adjoin to just one of these verbs.

Aoun and Lightfoot do not include in their conditions on contraction any overt restriction dealing with the category of want (compare Postal and Pullum, who require that want be a verb). They note that the government requirement would appear to make this unnecessary, since in examples such as (4), the noun want does not govern to.

(4) We cannot expect [that want]_NP to be satisfied,

As their conditions would predict, contraction here is impossible.

However, when the noun want does govern to, contraction is still impossible, contrary to what Aoun and Lightfoot would predict. The relevant type of example is given in (5).3

(5) [The want to eat]_NP is felt by all.

The noun want only marginally takes infinitival complements such as this for most speakers, but there is a readily perceivable decline in acceptability when contraction occurs.

The situation is even clearer with the noun need. Notice first that for some speakers, contraction with need works in the same way as contraction with want, as shown in (6).4

(6) a. Who do you need to see?
b. *Who do you needa see Bill?

Need differs from want, however, in that sentences in which the noun need takes an infinitival complement are fully acceptable for all speakers, as seen in (7)
The need to cat is felt by all. This sentence is not acceptable, though, when contraction occurs between need and to.

It appears, then, that Aoun and Lightfoot must add a restriction on the category of want to their account of wanna-contraction. This revised version of their analysis may now be summarized as in (8).

(8) Want and to may be realized as wanna when
   a. to syntactically adjoins to want,
   b. want and to are adjacent,
   c. want governs to, and
   d. want is a verb.

It would of course be desirable for these conditions to be collapsed, and the most plausible way to do this would be to try to derive (b)–(d) from (a). In the case of (b) and (d), this does not seem to be possible, i.e. the adjacency requirement and the requirement that want be a verb do not appear to be derivable from the statement on syntactic adjunction in (a). Aoun and Lightfoot suggest that condition (c), however, is derivable in this way, i.e. that the government requirement follows from the proposed adjunction rule, although their evidence for this position is not strong. They base themselves primarily on French liaison (following Manzini (1982)), in which it appears that government also plays a role, but the way government is used here is different from their proposal for English wanna. Specifically, there may be liaison in French between donnait and un in (9).

(9) [donnait, [un cours]_{np}]v.

even though donnait does not govern un in their system. Contraction between want and to is claimed to be impossible in this sort of configuration where government does not obtain, thus making it appear less likely that government is a necessary property of this sort of adjunction process.

However, Lobeck and Kaiser (1984), basing themselves on other areas of data, have argued that rules of "simple cliticization," including wanna-contraction, are indeed subject universally to a government requirement. Even if we assume that this is the case, though, condition (8c) might still be problematic. The reason is that in order for government to obtain between want and to in a configuration such as (10), Aoun and Lightfoot must assume that government of a maximal projection implies government of its head, as proposed in Belletti and Rizzi (1981), and that INFL is the head of S'.

CP (=$S'$) is not a barrier to government, since it is L-marked by V, and neither is IP (=$S$), since it may be a barrier only by inheritance. Minimality, however, does prevent government of to by want, because of the intervening governor C. Notice that this must be the case, or else we would have the undesirable consequence of want governing PRO. It would be beyond the scope of this paper to consider in depth the question of the proper analysis of $S'$, but it is clear that if one adopts a framework such as that of Chomsky (1986b), the government requirement on wanna-contraction as formulated in (8c) is untenable.

2. RESTRUCTURING

I will now argue that the properties which we have seen to be associated...
with wanna-contraction in fact arise because it is an instance of restructuring, a possibility first suggested by Frantz (1977) and Pullum (1982). I will take (12) to be the basic condition on wanna-contraction.

(12) Want and to may be realized as wanna when want and to are members of the same clause as a result of restructuring.

Restructuring is a process which converts biclausal structures such as (13a) into monoclusal structures such as (13b).

\[
\text{(13a) } \quad \begin{array}{c}
\text{S} \\
\text{NP} \quad \text{INFL}_1 \quad \text{VP} \\
 V_1 \quad S' \\
 \text{COMP} \\
 \text{S} \\
\text{NP} \quad \text{INFL}_2 \quad \text{VP} \\
 V_2 \\
\end{array}
\]

Rizzi (1982) has argued convincingly that such a process occurs in Italian with trigger verbs (in $V_1$ position) such as volere 'want' or dovere 'must.' Many of the arguments carry over to Spanish as well.

One of the pieces of evidence which supports this position, for example, is the phenomenon sometimes called 'clitic climbing,' in which a clitic which appears to be an argument of an embedded verb is attached instead to a matrix verb, as shown in (14).

(14) a. La voglio leggere.

(15) a. Aun si quisiera, comer las no seria muy buena idea.

b. *Aun si las quisiera, comer no seria muy buena idea.

The ungrammaticality of (15b), in which the clitic las is attached to the verb querer, shows that restructuring is not possible in this environment, and in fact it is never possible when it involves anything other than a matrix verb and its complement clause. This parallels exactly the restriction on wanna-contraction that we saw in (2) above.

Another parallel involves the fact that the empty embedded subject is always coreferential with the matrix subject in restructuring constructions. Restructuring may thus occur in control structures, as in (14) above, or in raising structures, as in (16).

(17) a. Juan quiere que Maria las compre.

b. *Juan las quiere que Maria compre.

Restructuring is never possible when the embedded subject is disjoint. This holds true whether the subject is overt, as in (17), or null, as in (18).

(18) a. ¿Quién quiere que las compre?

b. *¿Quién las quiere que compre?

Here again, the impossibility of clitic climbing, as in the (b) examples,
shows that restructuring is not allowed in these environments. This was exactly the restriction on wanna-contraction that we observed in cases such as (1b).

A third parallel between restructuring and wanna-contraction concerns the syntactic category of the trigger. With restructuring, it appears that the trigger must always be a verb. For example, in the case of nouns that take infinitival complements, as in (19), one might reasonably expect restructuring to be possible, but the evidence indicates otherwise.

(19) |SP deseo de salir|
desire to leave

The preposition de here is generally assumed to be present solely to provide Case for the following S'. If restructuring had taken place, thus erasing the clause-level nodes, one would expect this preposition to be optional, but such is never the case. A preposition seems to be required for all nouns taking infinitival complements, thus suggesting that restructuring never occurs in such constructions. Wanna-contraction of course exhibits the same behavior, as we saw in examples such as (5) and (7).

A fourth parallel between the two phenomena may be seen in their interaction with coordination. For example, when two restructuring verbs are conjoined, it does not seem to be possible for just one of them to restructure with the following complement, as shown in (20).

(20) a. Quiero y tengo que hacerlo.
   I want and have to do it.

(20a) shows the structure without restructuring, and (20b) shows it with restructuring only between tengo que 'I have to' and hacer 'do', as evidenced by the attachment of the clitic to tengo que. Likewise, when two complements of a restructuring verb are conjoined, it is not possible to have restructuring between the matrix verb and just one of the conjuncts, as seen in (21).

(21) a. Quiero comprarlo y cocinarlo.
   I want to buy it and cook it.

"Clitic climbing" shows that there is restructuring between quiero 'I want' and cocinar 'cook' in (21b) and quiero 'I want' and comprar 'buy' in (21c), with consequent ungrammaticality. The facts seen in (20) and (21) are strongly reminiscent of the restriction on wanna-contraction evidenced in (2e—f), where we saw that want and to may not contract when just to is a member of one conjunct (as in (2e)) or when just want is a member of one conjunct (as in (2f)).

One might now reasonably ask why it is that restructuring has the properties that we have been observing above. In some recent analyses of restructuring, these properties are seen to fall out as an immediate consequence of the way in which restructured clauses are formed. In Zubizarreta (1982) and Goodall (1987), for instance, restructuring comes about when a verb simultaneously subcategorizes for both a clause and a verb, yielding two structures such as those in (13) (where V₁ has subcategorized for S' and V₂). If this is correct, we can then explain why restructuring is only allowed between a matrix verb and its complement. Since complement clauses are by definition those that appear in subcategorization frames, no stipulation needs to be made in order to exclude restructuring with adjunct clauses.

The fact that only verbs trigger restructuring also falls out from this model. If a noun were to subcategorize for both a clause and a verb, the second of the resultant structures (i.e., that equivalent to (13b)) would be ill-formed, since it would require a complex noun as in (22).

(22) N
    INFL₂  V₂

The categorial mismatch between N, and V₂ (as well as INFL₂) would presumably violate any reasonable interpretation of X' theory with regard to these complex categories.

We turn now to the fact that restructuring only occurs when the matrix and embedded subjects are coreferential. This follows from the analysis in Goodall (1987), in which for Case reasons the external θ-role of the embedded verb generally must be assigned via the complex verb to the matrix subject position, resulting in both external θ-roles being assigned to the same (matrix subject) position. Substantive evidence for this idea comes from Montalbetti (1984), for instance, where it is shown that there is no PRO subject for the embedded verb in restructured clauses, thus implying that no (θ-marked) embedded subject position exists at all. If this view is correct, then restructured sentences will always give the appearance of having coreferential matrix and embedded subjects, since in fact the two θ-roles involved will be assigned to the same position and hence to the same argument. Sentences in which these two θ-roles are assigned to separate positions will thus be incompatible with restructuring (as in (17) and (18)).

Finally, consider the fact that restructuring is not able to apply from or into a single conjunct in a coordinate structure. This follows from the well-
known constraint on coordinate structures which requires that pairs of conjuncts be structurally parallel, that is to say, they must be of the same category and they must each occupy the same position with respect to the rest of the sentence (see, e.g., Chomsky (1957)). In a structure such as (23), for instance, this requirement is satisfied.

(23) I want \( v \) to sing\] and \( v \) to dance.\]

Now if we apply restructuring here to \( v \) and the following to, this structural parallelism will break down, since to sing will be part of a complex verb, but to dance will not. Such a restructured sentence would thus be ruled out.\[13\]

By saying that \( v \)-\( \)contraction can occur only when restructuring has occurred, as in (12), we are able to achieve a much simpler account of the restrictions on \( v \)-\( \)contraction than Postal and Pullum (1982) (see (3)) or Aoun and Lightfoot (1984) (see (8)). Instead of an arbitrary list of observed properties, we are now able to provide a single statement on \( v \)-\( \)contraction, from which the various restrictions then follow in a principled manner.

There are other, more theory-specific advantages to this approach as well. First, we do not need to make a distinction between those empty categories that block contraction and those that do not.\[14\] Recall that in Jaeggi (1980) and Aoun and Lightfoot (1984), \( v \)-\( \)contraction is sensitive to the presence of wh-trace, but not NP-trace or PRO. Although the fact that wh-traces, like overt NPs, are Case-marked makes this division more natural, it is still not entirely clear why other empty categories should not affect the operation of the rule. Under the restructuring approach, we can maintain the simpler view that any empty category would be visible to contraction. As was seen earlier, it appears that restructuring may only occur when no empty category intervenes between the matrix and embedded verbs.\[15\]

Another possible advantage of this analysis is that it is compatible with a framework such as that of Chomsky (1986b), in which COMP, not INFL, is the head of \( S \). In fact it is compatible with any view of the head of \( S \), since this notion plays no role in the analysis. This may be compared with Aoun and Lightfoot's account, where \( \)wanna\( \) crucially must govern the embedded INFL (10). As seen above, this government relation is only possible if INFL is the head of \( S \).

3. LEARNABILITY

Most of the recent literature on \( v \)-\( \)contraction has approached this phenomenon not just from a purely syntactic point of view, but from the point of view of learnability as well. The reason is that \( \)wanna\( \)-\( \)contraction provides a particularly clear example of what has been termed the

"poverty of the stimulus" problem. That is, although it would appear that the child receives ample evidence that the sequence \( \)want\ to may be realized as \( \)wanna\, it is not so clear how s/he could acquire the restrictions on \( \)wanna\-contraction discussed above, given that s/he has no access to the relevant data. One reasonable way out of this problem is to say that the restrictions result from a very simple rule of \( \)wanna\-contraction in interaction with fundamental properties of Universal Grammar, which together then yield the aforementioned restrictions. In this way the child does not need to acquire these restrictions, since they follow from aspects of the child's innate knowledge.

This perspective receives support from a recent study of the acquisition of \( \)wanna\-contraction in children (from 2 years, 12 months to 5 years, 10 months of age) by Crain and Thornton (1988). They show that the contrast between (1a) and (1b), repeated here as (24), is evident even in very young children.

(24) a. Who do you wanna see?
   b. *Who do you wanna see Bill?

Out of their set of elicited sentences with extraction from embedded object position (as in (24a)), 59% use the contracted form \( \)wanna\, while out of those with extraction from embedded subject position (as in (24b)), only 4% use contraction. Such a strong tendency to avoid contraction in contexts such as (24b) would be surprising if restrictions such as these had to be learned. It appears that these restrictions come into effect as soon as
c

the child begins to use \( \)wanna\, thus suggesting that they are the result of UG rather than the environment.

If correct, this view of the acquisition of \( \)wanna\-contraction places strong constraints on any syntactic analysis of it. Apart from the presumably small portion which the child must learn, and which therefore must be easily deduced from the primary data, the rest of the analysis must follow from UG. In other words, one must be able to show that some plausible theory of UG would yield the analysis as a consequence once given the primary data.

Out of the three analyses of \( \)wanna\-contraction that we observed in section 1, two do not appear to meet the above criterion. In Postal and Pullum (1982), the requirements that \( \)to\ is in the complement clause of \( \)want\ and that the two subjects be coreferential are neither learnable, since the child has no access to the crucial negative data (2) and (1b), nor attributable to UG in any obvious way, since these negative data are not ruled out by universal principles in their analysis. The same may be said for the requirement in Aoun and Lightfoot (1984) that \( \)to\ must syntactically adjoin to \( \)wanna\, The child would need to know that (2c--f) are ungrammatical with contraction in order to deduce that syntactic move-
wanna-contraction is possible, s/he will be forced to conclude that restructuring is involved. The specific properties associated with restructuring will then carry over directly to wanna-contraction without any additional learning by the child. If this view may be sustained, it constitutes additional evidence for the analysis proposed here, since we can now see that the idea that wanna-contraction is restructuring yields not only improved empirical results, but also a better explanation of how this construction is attained by the child. In effect, we are now able to return to a simple picture of wanna-contraction and learnability, as in Jaeggi (1980), in which the child must learn only that want and to may be realized as wanna and the rest then follows from independently needed principles.

3.1. Further Issues in Learnability

The above discussion may be complicated somewhat by the possible existence of the "liberal dialects" mentioned by Postal and Pullum (1982) and others, in which sentences such as (1b), repeated here as (26), reportedly are allowed.

(26) *Who do you wanna see Bill?

I have been assuming without question up to now that this sentence is ungrammatical.

Notice first of all that it is not entirely clear that these liberal dialects actually exist. As Carden (1983) states, "the force of the data based on the liberal dialects is weakened by worries about whether the claimed dialect difference is real, or whether the subjects are simply reporting introspections based on different assumed speech rates. Again, more serious data collection is needed." The fact that many speakers have very strong judgements that (26) is ungrammatical makes it implausible (although of course not impossible) that the sentence is grammatical for speakers of otherwise extremely similar dialects.

Even if there are no such liberal dialects which accept (26), however, the logical possibility of their existence raises intriguing questions which might be worth considering. The basic problem is that these dialects would suggest that the ungrammaticality (for speakers of non-liberal dialects) of (26) is not primarily due to some aspect of UG. Given that children presumably do not receive direct evidence regarding (26), the fact that some speakers judge it to be ungrammatical would then be very mysterious.

This perhaps hypothetical example of wanna-contraction with liberal dialects is not the only case where learnability puzzles such as this arise. Chung (1983) shows that in Chamorro transitive clauses with third person plural subjects are disallowed. Clearly this fact about Chamorro is not
mandated by Universal Grammar. On the other hand, it is not easy to see what type of evidence would lead the child to formulate this restriction.

I leave these problems open for now. I suspect that the purported dialect differences with wanna will turn out to be spurious, but as we have just seen, the questions of learnability which the existence of the liberal dialects would pose appear to be real.

4. CONCLUSION

We have now seen two main types of evidence in favor of the hypothesis that wanna-contraction arises through restructuring. The first is based on the fact that wanna-contraction mirrors many of the fundamental properties of restructuring, especially those dealing with the syntactic contexts in which restructuring is possible. There are a number of ways one might try to capture this apparent generalization; the one I have pursued here claims essentially that wanna-contraction may apply only when restructuring already has. This allows us to account for the restrictions on wanna-contraction in a simple, straightforward way. The second type of evidence concerns the learnability of analyses of wanna-contraction. Here I showed that some of the previous analyses did not seem to be able to provide a plausible account of how the child comes to acquire the restrictions on wanna-contraction. By adopting a restructuring analysis, however, together with certain plausible auxiliary assumptions, we then have an account which does seem to be learnable by the child.

NOTES

1 Postal and Pullum do not explicitly account for the ungrammaticality of (2f), but I assume that what I have stated here is what they had in mind.


3 I am assuming here the standard analysis of NP. With the DP hypothesis of Abney (1987), want would presumably not govern to here.

4 Need may thus differ from verbs such as intend (see Andrews (1978)), which appear not to exhibit the paradigm in (6).

5 Although donnait does not govern un in Aoun and Lightfoot, it conceivably could under somewhat different assumptions, depending both on the definition of government and on the structure of NP (or DP) that one adopts.

6 For a different view of this, see Bouchard (1984, 1986).

7 In much of the subsequent discussion, I will refer to restructuring as a "rule" or "process" (as it has traditionally been taken to be). This is for ease of exposition only, and is not intended to prejudice the question of how restructuring is to be accounted for.

(13) is intended to be relatively neutral as to the many interesting questions of detail in restructuring. The embedded subject NP is omitted in (13b), since there is some evidence that it in fact is not present at that level (see below). Given the close relation between INFL and V, I assume that both INFL and V are included in the complex verb in (13b). This will be important in the account that follows.

* Alternatively, one could say here that restructuring is prohibited when the embedded clause is finite, there being no English-style ECM in these languages. However, I will maintain the disjoint embedded subject account, since it is the one which receives a ready explanation in terms of the mechanism underlying restructuring, as will be discussed below.

In this model, if INFL is to be to the left of V in (13a), as it presumably must be, then it must also be to the left of V in (13b). Thus, the fact that V subcategorizes for V means that INFL will also appear within the complex verb.

I am assuming here a version of the β-criterion which requires a one-to-one relation between arguments and β-roles (see Chomsky (1986a)).

10 Mention should be made here of matrix raising verbs which trigger restructuring, as in (16), where there is of course only one external β-role involved. In this case, it seems to be a matter of lexical idiosyncrasy as to whether this single external β-role is assigned by the complex verb to the matrix subject position or by V to the embedded subject position. See Burzio (1986) and Goodall (1987) for some discussion of the relevant data. Since want is not a raising verb, the issue does not arise here, although it presumably would in a discussion of contractions such as want, had, etc., which do seem to be from raising verbs. These cases could be easily handled under the present analysis regardless of whether the external β-role is assigned to the matrix or embedded subject position, because even if it is assigned to the embedded subject position, this NP would not still necessarily block contraction. The reason is that this NP may be assumed to occur in a post-VP position at D-structure, as in Goodall (1987), thus allowing restructuring (and contraction).

12 The clitic climbing cases examined above in (20b) and (21b-c) are also disallowed because of a general parallelism requirement on coordinate structures (see Goodall (1987)), by which these sentences are ruled out for the same reasons that (i) and (ii) are.

(i) I wanna sing and dance.

(ii) I don't need or wanna hear about it.

Restructuring could apply from both conjuncts in a case such as (2f), if we assume that both need and want allow restructuring. This would yield (ii).

Postal and Pullum (1982) count this as ungrammatical, but it seems relatively good to many speakers (this has also been noticed by Aoun and Lightfoot (1984)). It is certainly much better than (iii) (cf. (2e)).

(iii) *I wanna sing and to dance.

The embedded subject θ-role is assigned either to the matrix subject position (in the case of a matrix control verb) or to an NP position to the right of VP (in the case of certain matrix raising verbs). See note 10.

Another possibility is that the difference between the two dialects is a type of parametric variation (analogous to the difference between English and Italian with respect to that-effect, for example). It is not clear, though, what this parameter would be and how it would get set.

This problem is briefly discussed in Postal and Pullam (1986) and Lightfoot (1986).

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