

Focus and Wh-Movement in Armenian.

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Introduction

This paper deals with some aspects of Focus and WH-movement in Armenian¹. It has been suggested (Brody 1990a) that languages universally have a category F(ocus) projecting a maximal projection (FP) which hosts the focused elements in clauses, and that elements need to be assigned a (+f) feature in order to be licensed as foci. However, languages may differ with respect to the level at which this movement takes place. Thus, as with WH-movement, some languages may have focus movement at S-structure and LF, and others may have it only at LF. It has also been suggested that WH-movement may be an instance of F-movement. In what follows some Armenian data will be discussed and it will be argued that Armenian belongs to the group of languages where in matrix clauses and tensed embedded clauses there is no F-movement at S-structure.

1 Clause Structure: VP and IP

Armenian is a head final language which in itself suggests an SOV word order for the clause. Asymmetries between subjects and objects show that the structure we are dealing with is a hierarchical one rather than a flat one. Consider the following examples concerning pronominal coreference:

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¹Armenian refers to three forms of the same language: Classical Armenian, Modern Western Armenian and Modern Eastern Armenian. This paper deals with Modern Eastern Armenian which is the language used in Armenia today. Modern Western Armenian is also currently in use. This is the so called "language of the diaspora", originally used in Western Armenia (Eastern Turkey today).

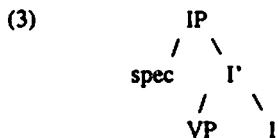
There are a number of structural differences between the two modern standard dialects. For example in the Western dialect the auxiliary always follows the verb unless there is negation in the structure in which case it follows the Neg element. Thus none of the problems discussed in the first part of this paper are relevant in Western Armenian.

- (1) (a) sirani, ənkerə neran, tesav
Siran(gen.) friend her saw
"Siran's friend saw her"
- (b) * na, sirani, ənkerəçə tesav
she Siran(gen.) friend saw
"she saw Siran's friend"

In the first example the subject C-commands the pronoun which is coindexed with it and the resulting structure is grammatical. In the second case however, we don't get the coreferential reading because the pronoun is higher up in the clause. So it is clear that the subject position is higher than the object position. But this doesn't determine whether the subject is in IP or in VP. The presence of that-t effects which are a result of the lack of proper head government (see Rizzi 1990) indicate that the subject cannot be inside the VP. Consider the following examples:

- (2) (a) * OV es uzum vor namakə beri
WHO are-you wanting that the letter bring
"You want who to bring the letter"
- (b) VOR NAMAKEN es uzum vor Siranə beri
WHICH LETTER are-you wanting that Siran bring
"Which letter do you want Siran to bring"

So it seems that the canonical position for the subject is the spec of IP. The structure we have so far will therefore be the one in (3):



2 Focusing

2.1 Word Order

2.1.1 Auxiliary movement

Let us now consider structures which contain a focused element. The idea that languages universally have an FP in their structure hosting the focused elements (Brody 1989b) seems to explain certain phenomena in Armenian which at first approximation seem difficult to explain otherwise. The most

important of these are Focus and WH movement. Let us first look at focus movement. Consider the following examples:

- (4) (a) siranə surikin sirum e
Siran(nom) Surik(acc) like is
"Siran likes Surik"
(b) siranə SURIKIN e sirum
Siran(nom) SURIK(acc) is like
"Siran likes SURIK"

(4a) is the non-focused form with the normal SOV word order. However, (4b) has a different word order. In this example, the auxiliary, which should be the rightmost element according to the structure in (3), has moved to the left of the verb and adjacent to the focused phrase. Notice that the example in (4b) is ungrammatical if the auxiliary remains in situ:

- (5) * siranə SURIKIN sirum e
Siran(nom) SURIK(acc) like is
- (6) (a) * SURIKE siranin sirum e
SURIK(nom) siran(acc) like is
(b) * sirum siranin SURIKEN e²
like siran(acc) SURIK(nom) is
(c) * SURIKE sirum siranin e
SURIK(nom) like Siran(acc) is

It seems that if we assume the object in the example in (4b) to be in situ, we are faced with a problem. The movement of the auxiliary will be predicted to be ungrammatical, because the auxiliary will have to be "stranded" in the structure as there is no position for it to attach to.

In examples (5) and (6a) no movement has taken place, and therefore the structure is ungrammatical. In (6c) the focused phrase and the auxiliary are not adjacent and it is the main verb which seems to have moved to a position preceding the object. (Notice that in the grammatical examples the auxiliary moves to a position following the focused object.) So it seems that the movement which takes place in these structures does not involve the main verb. In (6b) the focused phrase and the auxiliary are adjacent which seems to be a requirement for the grammaticality of these structures, but the sentence is still ungrammatical. This means that the adjacency of the auxiliary and the focused

²The two forms SURIKE and SURIKEN are actually the same. The definite suffix "e" in SURIK-E is followed by a nasal "n" whenever the following word begins with a vowel. So the difference is purely phonological, and has no syntactic consequences.

phrase is not enough to create a grammatical structure. So perhaps these elements have a fixed position to which they move.

2.1.2 WH-Movement

WH-movement seems to involve the same type of movement as the above focused elements. Consider the following examples which are on a par with the ones given above:

- (7) (a) sirane U MEN e sirum
Siran(nom) who(acc) is like
"who does Siran like"
- (b) * sirane U ME sirum e
Siran(nom) who(acc) like is
- (c) * OV siranən sirum e
who(nom) siran(acc) liking is
- (d) * sirum siranin OV e
liking Siran(acc) who(nom) is
- (e) * OV sirum siranin e
who(nom) liking Siran(acc) is

As the examples show, the WH-Phrases in the above examples must always be focused. They must bear a stress at PF. Notice that if the WH-phrases are not focused the structure will have no interpretation:

- (8) * siranə umə sirum e
Siran who liking is

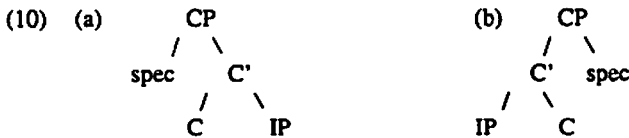
This fact suggests that the crucial feature in the interpretation of WH interrogatives is the *f* feature. So it seems that the *wh* feature is a lexical feature which doesn't need to be assigned or distributed. However, +*wh* elements also need the *f* feature in order to have an interrogative interpretation. So the feature assigned to them is the *f* feature rather than the *wh* feature. This means that at D-structure we only have *f* assignment and no *wh* assignment. If a WH-phrase is assigned +*f* it has an interrogative interpretation, if it is not assigned this feature, it is not interpreted as an interrogative, and the structure becomes impossible to process.

2.1.3 F-Movement

We now have to determine the positions to which these elements move. Neither WH-movement nor focus movement in the above examples can be to the spec of CP. Consider the following examples:

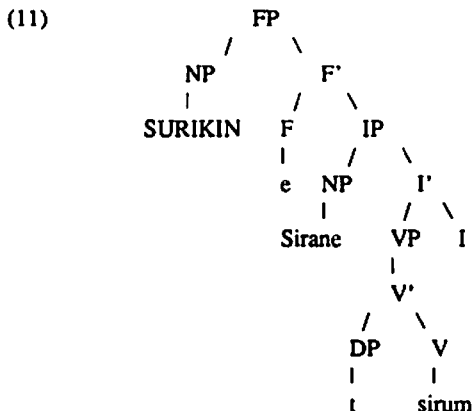
- (9) (a) uzum em imanal te OV e surikin sirum
 want am know whether who(nom) surik(acc) is like
 "I want to know who likes Surik"
 (b) * uzum em imanal te OV surikin sirum e
 want am know whether who Surik like is same
 (c) sirane asets vor ARAN e surikin sirum
 Siran(nom) said that ARA(nom) is Surik like
 "Siran said that ARA likes surik"
 (d) * sirane asets vor ARAN surikin sirum e
 Siran(nom) said that ARA(nom) Surik(acc) like is

As the examples in (9) show, even in complement clauses with an overt complementizer, movement has to take place or the structure is ungrammatical. This fact shows that the moved element cannot be in the spec. of CP, because CP has already been filled by the complementizer, and a WH-movement would violate the doubly filled comp filter. However, it is well known that the doubly filled Comp filter is not a universal constraint. The position of the complementizer with respect to the foci however, seems to suggest that there are two maximal projections involved. Thus, even if we allow for a doubly filled comp. we shall not be able to get the order in the grammatical examples in (9). In these examples the complementizer immediately precedes the focus which itself precedes IP. This order is impossible to get in a single maximal projection headed by the complementizer as shown in (10).



So it seems that there is another maximal projection involved such as an FP dominating IP. With this new maximal projection in the structure the word order problem will be solved automatically. The auxiliary will move to the head position F in order to satisfy Lasnik's filter (cf. Tsimpli 1989), and the focused element will move to the spec of FP because an FP must have a focused phrase in its spec.. Notice that this means that the f feature is distributed freely at a level prior to S-structure. This is supported by the fact

that there is no limit to the focused elements one can have in a given structure. So we get the following structure for the example in (4b):



Notice that in order to get the right word order, the subject in this example will have to be topicalized. The structure in (11) will exclude all the ungrammatical structures in (6) and (7), and will allow only the grammatical ones.

2.2 Multiple Focus Constructions

Let us now turn to structures with multiple foci. Consider the following examples.

- (12) (a) OV UMN e najum
 WHO WHO is looking
 "WHO is looking at WHO"
 (b) SIRANE SURIKIN e najum
 SIRAN SURIK is looking
 "SIRAN is looking at SURIK"

In the above example both foci seem to have moved to FP, and the auxiliary also seems to have moved to the head F of FP. Thus we get a grammatical structure. However, if one of the focused arguments in the above examples is replaced by an adjunct such as "how", it always has to immediately precede the auxiliary. The ungrammaticality of example (13b) is an indication that there is movement involved here. In (13b) it seems that the adjunct trace fails to properly govern its trace from its moved position at LF. So we get an ECP

violation in (13b) but (14) is fine because the object trace is properly governed.

- (13) (a) OV INCHPES e gørum
 WHO HOW is writing
 "WHO writes HOW"
 (b) * INCHPES OV e gørum
 HOW WHO is writing

However, in (13a) the subject trace seems to have managed to escape the antecedent government requirement. This will not be possible in the structure given above because the trace in the spec of IP needs antecedent government even if we assume that the subject is moved to IP from within the VP where its trace can be properly governed. Notice again that this is not a superiority violation. Grammatical examples such as (14) show that what we have here has nothing to do with superiority. It will be shown later that referentiality is the crucial feature to look at in such structures.

- (14) UME OV e sirum
 WHO(acc) WHO(nom) is liking

The above evidence seems to be in favor of a syntactic movement hypothesis for focused constructions. Thus, it seems to be the case that focus is syntactically marked. Notice however, that this way of dealing with focused structures necessarily involves obligatory topicalization in cases where an element other than the subject is focused. Consider example (4b). In this example it is the object which has presumably moved to the spec of FP, but the subject is still the leftmost element in the clause, so the only solution seems to be to assume that it is topicalized. But there is no independent evidence to show that the subject is topicalized. In fact there is evidence to show that the elements preceding the focus cannot be in a topic position. Consider the following example:

- (15) siranə amen aravot patuhanits UMN e kanchum
 Siran(nom) every morning from the window WHO is calling?
 "who does Siran call every morning from the window?"

With a movement hypothesis we are forced to say that all the material preceding the WH-phrase in this example is topicalized. This however, cannot be the case. Both the interpretation and the presence of the quantified phrase suggest that there is no topicalization in this example. There is no "operator-like" interpretation involved, and we know that universal quantifiers cannot be topicalized (May 1977). So we must consider these elements to be in situ in the

above example and reject the movement hypothesis. Notice that left dislocation is also ruled out because first, left dislocated structures are extremely marginal and even ungrammatical to most speakers, and second, there is no change in the degree of acceptability if we embed the above example in a "that" clause or a relative clause. In both cases the structures are as acceptable and as grammatical as the main clause which is never the case with dislocated material (see Kiss 1987 and refs.).

- (16) (a) surikə hartsənum e te siranə amen aravot patuhanits
UMN e kanchum
Surik asking is if Siran every morning window-from
who is calling
- (b) ain akhchikə vor amen aravot patuhanits SURIKIN er
kanchum, aisor SIRANIN kanchets
The girl that every moening window-from SURIK
was calling, today SIRAN called
"The girl who was calling SURIK from the window
every day, today called SIRAN "

The same is also true with other elements which cannot be topicalized, such as indefinites.

- (17) (a) * mi ashakerti yes t tesel em
one student I t seen am
"one student, I have seen"
- (b) aisor tesa vor mi ashakert AIS GIRKEN er kardum
today saw-I that one student THIS BOOK was
reading
"Today I saw that a student was reading THIS
BOOK"
- (c) siranə vor yerek mi ashakerti ir GIRKEN er tovel,
aisor mi urishin ir MATITE tevets.
Siran that yesterday one student-to her BOOK was
given, today one other-to her pencil gave
"Siran, who had given her BOOK to a student
yesterday, gave her PENCIL to another student
today."

Furthermore, in structures without an auxiliary, there is no requirement on the foci to be adjacent to the verb.

- (18) SIRANE ais aravot patuhanits surikin kantchets

2.3 LF Focus Movement

Although there seems to be no F movement at S-structure, the data suggests that there must be movement at LF. Consider cases with adjuncts for example as in (13b) or (19).

- (19)
- | | | |
|-----|---|--|
| (a) | | SIRANE INCHPES e gørum
SIRAN HOW is writing
"HOW is SIRAN writing" |
| (b) | * | INCHPES SIRANEN e gørum
HOW SIRAN is writing |
| (c) | | OV UMN e sirum
WHO(nom) WHO(acc) is liking |
| (d) | | UME OV e sirum
WHO(nom) WHO(acc) is liking |

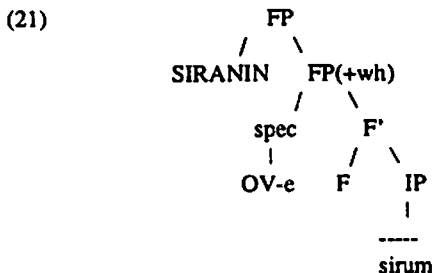
In the above examples the adjunct needs to be adjacent to the auxiliary or the structure is ungrammatical. This fact suggests that some kind of movement is involved here which in some instances blocks antecedent government. Following Brody (1990a) we assume that at LF all foci must be in a +f FP. Now we need to determine what goes on when the adjuncts fail to antecedent govern their traces.

In multiple focus constructions, as in the ones in (19), it seems to be the case that the auxiliary indicates the element which is the first one to move to FP at LF giving the spec its index. Notice that the index assigned in this case is the kind of referential index considered in Rizzi (1990). Antecedent government will then take place only when the index of the spec lacks a referential feature. Thus, adjuncts may only antecedent govern if they move to the spec of FP before the referential elements in order to assign the spec of FP a non-referential index, and make antecedent government possible. So we predict that an adjunct WH-phrase will not be able to antecedent govern its trace if there is another focus in the structure which has a referential index and the auxiliary is attached to it. Furthermore, we predict that R-expressions may always antecedent govern their traces in focused main clauses.

The presence or absence of a +wh feature on the FP is also important for the grammaticality of the structure. Let us consider some examples.

- (20)
- | | | |
|-----|---|---|
| (a) | * | OV SIRANIN e sirum
WHO SIRAN is liking |
| (b) | | OV e SIRANIN sirum
WHO is SIRAN liking |

In (20a) the subject has to move to FP at LF later than the object SIRAN, because the auxiliary follows SIRAN. The FP to which SIRAN moves however, is a +wh FP, so we get a clash of features: a -wh element in a +wh FP. In (20b) the auxiliary is attached to the WH-Phrase, therefore this is the first element to move. Thus, the spec of the +wh FP is filled with a WH-Phrase and then the second focus moves up and adjoins to the FP creating the following structure which is well-formed.



We said that referentiality is also an important factor in producing a grammatical sentence. consider the following examples:

- (22) (a) OV VORTEGH e nøstum
 WHO WHERE is sitting
 (b) VORTEGH OV e nestum
 WHERE WHO is sitting

In (22a) "who" and "where" must both have a referential interpretation. Without this interpretation the structure is ungrammatical. In other words, there is a preestablished set of people and the speaker wants to know where (on which seat) each member of this set sits. Therefore the structure is grammatical. However, in cases such as the example in (13b) where we have "how" which is a manner phrase, there is no possibility for it to have a referential interpretation and therefore it fails to govern its trace causing the ungrammaticality.

We have now established that there is movement at LF. We have also seen that it is not possible to consider movement to have taken place at S-structure. On the other hand it is obvious that the auxiliary moves, and it moves at S-structure. So it seems that we are now in an impossible situation. We know that there is movement (because we see the auxiliary move), and we also know that there cannot be movement at S-structure (because topicalization does not take place in cases where a movement analysis necessarily requires elements to be topicalized).

Let us now have a closer look at the auxiliary. Considering this element to be the head of IP there are two ways of dealing with it. Either this head moves to FP at S-structure and the focused elements move to the spec of FP so we get them adjacent at S-structure, or it has a clitic-like property by means of which it attaches to certain elements in the structure and the other elements remain in situ. We have already seen that the first option is not available, so let us consider the second option. If we consider the auxiliary to be a clitic-like element, we then have to determine where this element can move to and what elements it can or cannot attach to. Let us consider the options.

In ordinary unfocused constructions the auxiliary is always with the verb unless there are indefinites or certain types of adverbs in the structure (for a discussion of these structures see Tamrazian (in prep.)).

- (23) (a) siranə amen or girk e kartum
Siran every day book is reading
"Siran reads books every day"
- (b) * siranə amen or girk kartum e
- (c) siranə surikin shat e sirum
Siran Surik very much is liking
"Siran likes surik very much"
- (d) * siranə surikin shat sirum e

In structures with a focused element, we have to consider the auxiliary cliticized onto the focus irrespective of its position and function. This means that this head can attach to heads (the verb), arguments (both the subject and the object) and other elements such as adverbs, quantifiers etc., without violating a single principle of UG. This is not possible however, with a head moving as a clitic in the structure. It is not possible for it to move in such an unrestricted way. So we are led to conclude that what seems to be the auxiliary in Armenian, is not in fact a syntactic head. It might be the case that it is somehow linked to I, say for instance it is assigned by I, and therefore indicates the I features. It was shown that this feature is only assigned to the verb in sentences which don't have a focus, and to the element bearing the +f feature in sentences which have a focus. It is also clear from the argument-adjunct asymmetries and the ECP violations that movement at LF is directly connected to the distribution of the auxiliary.

But if the "auxiliary" is not a syntactic head, then what is it? Perhaps it is just a feature which gets assigned to certain elements. But if this is a feature assigned at S-structure, it must be assigned by one of the elements, and if this is the case, why is it assigned in such an unconstrained way? If it is an inherent feature which has nothing to do with the syntax, then why do we get the asymmetries and ungrammaticalities, and why can we have only one such element in a clause? So perhaps LF has a role to play in determining the nature

of this feature. Let us consider the LF role more carefully. But first we should consider the status of the "real" auxiliary (that is the element under I).

With an IP in the structure (see section 1), there must be a syntactic element to fill the head position. This element is not what seems to be the auxiliary however. As we have seen, the "auxiliary" is more likely to be the result of a kind of feature assignment. It seems however, that this feature is assigned by the head of IP because the feature surfaces on lexical elements as the tense and agreement features. So there must be an element under I to carry the tense and agreement features in the first place and then assign it to other elements. The element under I seems to be an abstract one in Armenian. This abstract auxiliary has all the properties of the ordinary auxiliary but it is phonetically empty. In focused constructions it moves to F obligatorily in order to satisfy Lasnik's filter and support the abstract F morpheme which is the head of FP.

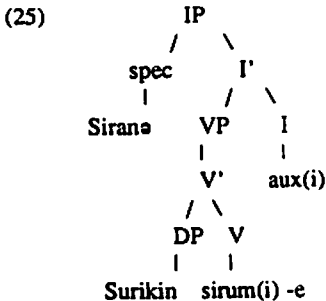
3 An LF Based Analysis

3.1 Constituent Focusing

As shown in the previous section, it is not possible to account for the movement of the "auxiliary" by resorting to S-structure. A consideration of the LF representation of the examples however, seems to shed some light on what is actually forcing the tense and agreement features to surface on different elements. Consider first a structure where the tense and agreement features are realized adjacent to the verb in example (4a) repeated here as (24).

(24) *siranə surikin sirum e*
 Siran Surik liking is

Let us now try to give the structure of this sentence having the abstract auxiliary and its feature assignment in mind. In fact if we assume that the auxiliary is an abstract one, then this feature assignment will become a necessary process in the following way. Because the features that the auxiliary bears should be heard at PF, the auxiliary must assign them to a lexical element on which these features can be realized phonetically. So the structure will be the one represented in (25).

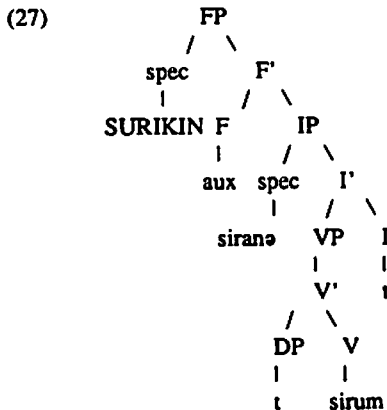


The abstract auxiliary assigns the features it bears to the first head it governs. In this case the first head is the verb, so the verb gets coindexed with it and thus the feature gets realized on the verb (which is a lexical element), without actually becoming part of the morphology of the verbal complex.

Now we should consider structures with a focused element in them. Consider (4b) repeated here as (26).

- (26) siranə SURIKIN e sirum
 Sian SURIK is liking

The LF representation of this structure is shown in (27).



We have seen in previous sections that all focused elements move to FP at LF. So here the focused element has to be in FP. The abstract auxiliary must also move to FP (to the head F) in order to support the abstract F morpheme under

F. From its position under F the auxiliary is unable to govern a lexical head, so it cannot assign its features to a lexical head. However, it already shares a feature, namely the *f* feature, with the element in the spec of FP. Furthermore, it is in a spec-head relation with it, so it assigns its features to the element that occupies the spec of FP. Thus the abstract auxiliary forms a chain with the focused phrase which is in FP and transmits its features through the chain. However all this takes place at LF and has nothing to do with the position of the elements at S-structure. This is true if we take the standard view and consider D-structure as the basic level and S-structure and LF as derived levels. We could however, following Brody (1987,1990b), consider LF to be the basic level in which case S-structure and D-structure would be derived from this level via movement which takes place only chain internally. These chains are constructed at LF by a rule of "construct chains" which replaces "move a". So perhaps Armenian can be looked upon as an empirical piece of evidence supporting this theory.

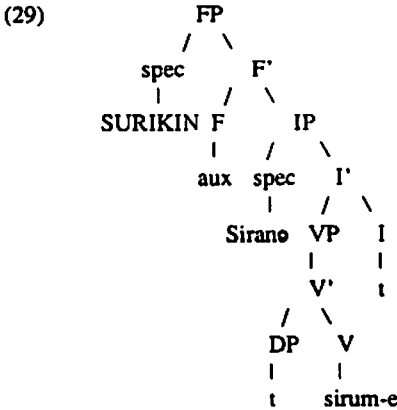
Returning to our example, if we consider S-structure to be derived from LF we shall be able to derive the right S-structure order from the LF representation sketched above in the following way. The abstract auxiliary will assign its features to the element in spec of FP and they will be spelled out on the focused phrase. At S-structure the focused phrase will move into its S-structure position carrying the features with it, and this is how we get the features realized on the focused element.

Now let us look at some of the ungrammatical examples we had and see how they will be ruled out. Take for example (5) repeated as (28).

(28) *siranə SURIKIN sirum e*

The LF representation of this example is given in (29)³:

³Notice that if focus movement takes place only at LF, then we cannot determine whether IP projects to the right of FP or to its left. The same also seems to be true with VP. With the information given in this paper, it seems that we have both options of projecting VP either to the right or to the left of I'. In the second case however, it can be seen from the SOV word order in structures without an auxiliary that VP is projected to the left as shown in the examples. In cases without an auxiliary tense and agreement are a morphological part of the verb so the verb must be in I at S-structure. Since the tensed verb is the rightmost element in the structure, I must be the rightmost node. As for IP, at this stage I have nothing to say about whether it projects to the right or to the left of F'. Any order would give the right result at S-structure. Thus we can either have structure (a) or structure (b).



In this example although the auxiliary itself is in FP, the feature is assigned to the verb. In principle this should be possible and we shall see later that in some cases this does in fact happen. However in this case, there is a focused phrase in the spec of FP and it shares the feature +f with the element under the head of the FP, namely the auxiliary. So they already form a chain with each other through this feature sharing and through a spec-head relation. If the features of the auxiliary are realized on the verb, it means that there has been an extra process of feature assignment because the verb doesn't share a feature, such as the f feature or an index, with the auxiliary, therefore a new chain will have to be formed through an extra coindexation process. This violates Chomsky's least effort principle and therefore the structure is ungrammatical.

In the ungrammatical example (6b) repeated as (30), the LF representation is well formed.

- (30) * sirum siranin SURIKEN e
 liking Siran(acc) SURIK is

What seems to have happened here is that the focused phrase has not moved into its trace but into some other position in the structure. In other words, movement of the focused phrase has not taken place chain internally and resulted in an ungrammatical structure. Notice that scrambling is in general



possible in Armenian. So if the subject in this example is not focused, we don't get the ungrammaticality. This is expected of course because in cases of focusing the focused phrase is restricted to move into the position of its trace at S-structure and it cannot move out of its chain.

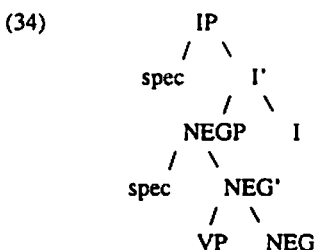
3.2 Verb Focusing

Now let us consider verb focusing. It is clear that because of the presence of an *f* feature in the structure (on the verb) there should also be an FP, and the auxiliary must be under the head position of this FP because of the affixal nature of *F*. Notice that the verb being a head can not be in the spec position of the FP at LF or any other level. So the auxiliary will fail to assign its features to any element, because the spec of FP will be empty and there is no lexical head the auxiliary can govern from its position in FP. So on which element do the *I* features get realized? As the example in (31) shows the feature gets realized on the verb in such cases.

- (31) *siranə girka* KARTATSEL *e*
 Siran the book READ-asp is
 "Siran has READ the book"

Notice that it was mentioned earlier that the *f* feature is assigned to elements prior to the syntax. This means that all focused elements have this feature even if they are not in FP. In cases of verb focusing the verb has the *f* feature already and therefore can form a chain with the auxiliary which shares this feature with the verb by virtue of being in the head position of the FP (Note that the very existence of the FP is triggered by the *f* feature which the verb carries). So in this case we have a chain which contains the auxiliary, its trace and the verb. The verb is the only lexical element in this chain, so the features get realized on it. There do not seem to be any constraints to rule out such a chain. The only constraint which might be relevant here is the HMC, if we consider this constraint to be a constraint on representations rather than movement. The HMC will then block the link between two heads which are separated by another head. Of course the link between two heads involves more than just structural positions. In this case this link is licensed by the *f* feature shared by the verb and the auxiliary. This constraint is satisfied in cases of verb focusing because all the elements in the chain are properly "distanced" from each other. In other words there is no intervening head between any of the elements in the chain, as shown in (32) which is the LF representation of (31).

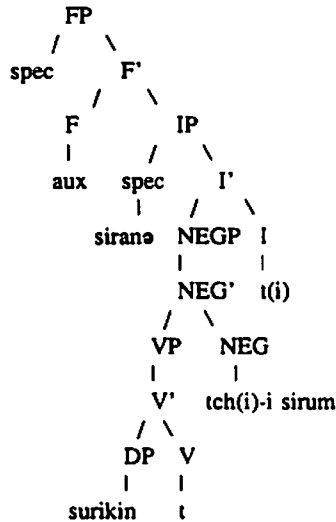
the auxiliary and thus create an ECP violation. It is not possible for it to remain in IP because there is an auxiliary under I which is non-affixal and the verb is also non-affixal so the single head position I cannot host both the verb and the auxiliary at the same time. On the other hand, the negative marker is affixal and needs a lexical element to support it so it cannot originate under I because being affixed to the abstract auxiliary, it will not be possible to support it with a lexical element. Following Pollock (1989), Chomsky (1989), Ouhalla (1989) and others I would like to consider "tch" (not) to be the head of a separate projection NEGP. I consider it to be a head because it is always a part of the verbal complex. The I features which appear on it then suggest that it should be higher than VP and immediately below IP. Thus we get the structure in (34) in negative clauses.



It might be argued that we can have a structure where negation is higher than IP. In this case the verb will have to move to I, and then to Neg and it will have to pick up the I features from the auxiliary. This option is ruled out because it will not be possible to get the right order in this way. In cases where there is no auxiliary in the structure, this is actually what happens. The movement chain involves three heads: the verb, Infl, and Neg, but the order in such cases is always Neg-verb stem-Infl. So it will not be possible to get the right Neg-Infl-verb stem order that we get with the auxiliary if we consider the auxiliary to be a lexical head as in cases where the head of Infl is a lexical affix. It may also be argued that the auxiliary or the verb or negation itself can be moved to derive negative structures with negation lower than IP. Let us consider these options separately. An auxiliary movement will leave an ungoverned trace in I. A Neg and verb movement will give the wrong order as in the case considered above. So it seems that the only way to get the right order is by the feature assignment process.

Considering the fact that negation is inherently focused, we must have an FP in negative structures. So the structure will actually be as represented in (35).

(35)



Because Neg is the first head that I governs in this structure, in exactly the same way as with the verb, it is assigned the features of the auxiliary and gets associated with it through the chain which is created through index and feature sharing. So the auxiliary will be under F and negation will be associated with it because they share the f feature, and we shall get a chain consisting of the abstract auxiliary, its trace and negation.

Notice that it is not possible to have an element in the spec of FP when the head position is filled by an auxiliary which is associated with Neg. This is because the auxiliary will have to be associated with both a head and a non-head, but the chain which results from this structure will have both a head and a non-head associated with each other but not through spec head agreement. This kind of association (between the verb/NEG and an element in the spec of FP) is not possible and results in ungrammaticality.

- (36) (a) * SIRANE tchi girke kartum
SIRAN not-is the book reading
"It is Siran who is not reading the book"
- (b) * SIRANE girke KARTUM e
SIRAN the book READING is

One technical problem which arises is that the chain which we get with focused constructions will always be associated with one head position, namely its trace. So the solution suggested above for the ungrammaticality of the examples

in (36) cannot be correct. There is however a way of dealing with this problem. That is, to consider the abstract auxiliary and its trace as one single element in the chain. Thus we will have a "complex" chain which has a chain as one of its elements. Notice that if this chain is created through the association of elements by their *f* feature, then the assumption will be justified. The chain created by the movement of the auxiliary to *F* is not relevant in the chain created by the *f* feature sharing. So the moved element and its trace can be considered as a single "disconnected" element in the "*f*" chain, and there will be no problem with the auxiliary being associated with a head and a non-head in ordinary argument focusing, because the association of the auxiliary with the movement trace will not be relevant.

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