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# Right movement in Seediq

Arthur Holmer

## 1 Theoretical background

### *1.1 The Minimalist Program*

In 1992, the latest development in generative syntax, Chomsky's Minimalist Program for Linguistic Theory, appeared. Largely a further development of and a reaction to Pollock's 1989 split-INFL hypothesis, it suggested that the inflection level (IP) in fact consists of three separate levels, namely AgrsP (where the subject-verb relation is dealt with), TP (where temporal morphology is dealt with) and AgroP (where the verb-object relation is dealt with). In other words, AgroP was designed to replace direct case-marking from the verb to the object. This was a radical innovation for syntacticians who have been comparing case-directionality and subcategorisation directionality in different languages (cf. Travis 1984).

The most radical innovation, however, was the replacement of S-structure by a mobile spell-out to Phonological Form from the line connecting D-structure and Logical Form, i.e. the formulation of the idea that syntactic movements may be covert. Covert movement had been used previously as a way of explaining certain scope relations, but was not favoured in other cases.

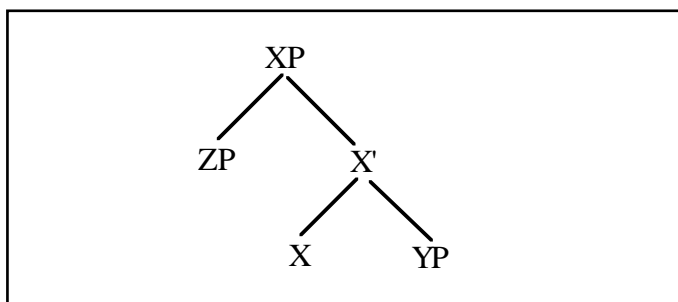
The Minimalist Program, on the other hand, takes covert movement to be the base of all syntax. Overt movement is to be avoided if possible, as it is psychologically or cognitively more costly. A child acquiring its L1 starts off with the working hypothesis that all movement is covert and thus it initially only makes use of what is given within the VP. With the arrival of covert movement, the importance of structure (shape and headedness) diminished, being largely replaced by features of the individual nodes, whether or not they require overt movement or allow covert movement. I shall not delve too deep into the details of the system at this stage, suffice it to give a brief presentation.

The basic rules of Minimalist Grammar are as follows. The head verb must always move up from V position through the structure tree, ultimately to C° position, passing through each head position on the way. Likewise, the subject of the clause must move to SpecAgrsP, and the object to SpecAgroP. The

reasons for this are that these lexical items are base-generated with all morphology they ever get, and with abstract grammatical features such as case, tense, agreement etc. which must be checked off against the functional category that is responsible for it. A verb must pass through Agro to check off the fact that it must case-mark the object by Spec-Head agreement with SpecAgroP, then through T to check off its tense, and finally through Agrs to check off its agreement with the subject (none of which, however, need to be reflected in the visible morphology of the verb or of the arguments). All these movements must take place. However, the concept of a mobile split-off implies that a given movement (any given movement) may take place before or after spell-out. This is decided by the features of the category to which the movement takes place. If the verb does not move to Agro, but the object still moves to SpecAgroP, we say that Agro has a weak ‘head feature’ but a strong ‘specifier feature’. A specifier feature at a certain level is that which attracts movement to the Specifier position of that given phrase, and a head feature is that which attracts movement to the head of the phrase. Weak features need not (and therefore, due to the principles of economy, may not) be checked off before spell-out, and thus correspond to covert movement. Strong features must be checked off before spell-out, and thus correspond to overt movement.

### *1.2 Antisymmetry*

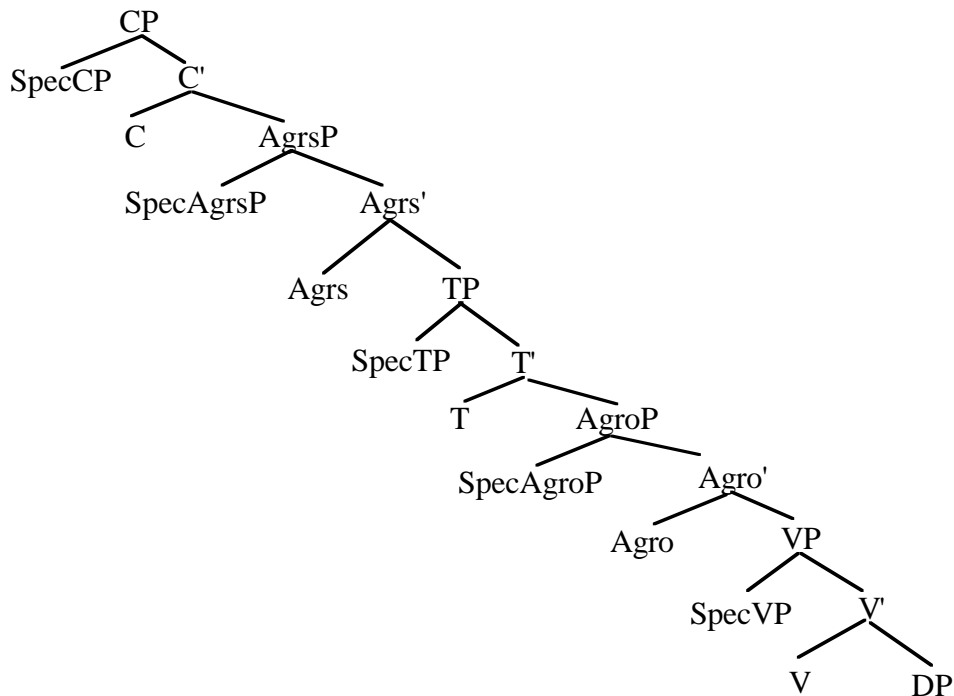
Also in 1992, another development took place which was to influence the mainstream of Principle and Parameter theory: Kayne’s antisymmetry hypothesis, which was first presented at the GLOW Colloquium in Lisbon. The most important aspect of this hypothesis is that XP structure invariably must have the same appearance, with the specifier to the left and the complement to the right, as below:



The same ideas are presented in great detail in Kayne 1993, and have been supported by Zwart 1993 in an analysis of Dutch, among others. This model

has come to be considered as almost synonymous with modern MP syntax. The resulting tree is illustrated in its entirety in (1) – for reasons of space, the reader is requested to refer back to this diagramme each time the structural positions of elements in the clause is described, in section 3.

(1)



The implications of this hypothesis are enormous: firstly, not only does the possibility of covert movement make the shape of the structure relatively unimportant, but in fact the restrictions of antisymmetry make structure completely irrelevant for word order. The obvious fact that languages such as Japanese or Turkish have some kind of ‘head-final’ trait (postpositions, SOV word order, AN order) and Austronesian languages typically have a ‘head-initial’ trait (prepositions, VOS or VSO word order, NA order) has been reduced to a preponderance of strong Specifier features for head-finality and a preponderance of strong Head features for head-initiality. A clear example of the consequences of this view is the title of Zwart 1993: ‘SOV languages are head initial’ – if this statement is true, then the term ‘head-initial’ has lost its meaning.

This model may have advantages in some respects (it is beyond doubt that OV order for case-marked arguments in Dutch, as opposed to VO order when the object is a clause, can be quoted in defence of this model<sup>1</sup>, but it does not

<sup>1</sup>cf. Zwart 1993:3-4: only case-marked objects move to SpecAgroP, i.e. move before the verb.

allow the description to mirror the structure of the clause except indirectly. Basic word order is now universally considered to be SVO, and the only ‘real’ difference in word order between languages is based on the strength and weakness of certain features, which may or may not be connected with other features.

### *1.3 Aims of this paper*

The purpose of this paper is not to argue about the intuitiveness or counter-intuitiveness of the antisymmetric brand of MP. Neither am I here concerned with demonstrating whether or not the results of an antisymmetric minimalist analysis can reward us with new generalisations. My sole concern will be the purely descriptive aspect – can we, given the mainstream MP model current today, describe the Austronesian language Seediq, in Taiwan, with its VOS word order, and fit it into a right-branching tree? In section 2 I present the language briefly, in section 3 I attempt to use the minimalist model to describe its syntax. In section 4 I present an alternative model which more comfortably fits the structure of the language.

## 2 Seediq

### *2.1 Geographical background*

Seediq is an Austronesian language spoken in the mountains of central Taiwan, to the north and east of Puli, past Wushe and Hohuanshan, and stretching along Taroko Gorge to the Pacific coast. It is the largest member of the Atayalic subgroup of Austronesian. The number of speakers was approx. 20,000 in the census of 1965, but has probably decreased since then. It is difficult to get an exact figure for the number of speakers of the language, since, for census purposes, the Seediq and two other Atayalic tribes are all classified as the ‘Atayal tribe’. Moreover, there are many younger members of the tribe whose command of the language is poor.

There are two main dialect groups in Seediq, the Western group, exemplified by the Paran dialect (spoken in the area around Wushe), and the Eastern group, exemplified by the Truku dialect (spoken in Taroko Gorge). My informants are speakers of the Paran dialect, and thus the data presented is based entirely upon this dialect.

## 2.2 *Typological background*

The word order facts relevant for the present paper are presented below: The canonical word order in Seediq is (X)VOS, where S stands for the grammatical subject standing in an agreement relation to the verb, in other words not necessarily an agent, and where (X) stands for an optional topic, usually either adverbial or nominal, which stands in no agreement relation to any verb. O, on the other hand, represents the internal argument, which in passive clauses is often an agent (cf. example a).

Seediq shares a typological feature with many other Austronesian languages, namely subject-focus. This implies that the morphology on the verb indicates the thematic role of the subject with which the verb is in agreement. In practice, this corresponds to voice in Western European languages, with the important distinction that whereas voice is bipolar, focus is multipolar. Seediq has four foci, Actor Focus (= ‘active’), Patient Focus (= ‘direct passive’), Locative Focus (= ‘indirect passive’ – the location or recipient of the action is subject) and Instrument Focus (the instrument or purpose of the action is subject)<sup>2</sup>. The function of focus is thus to allow a certain argument to become subject, given the thematic relations which hold at D-structure. The reasons for making a given argument subject are to present it as being known, as being a topic – prototypically, subjects in Seediq are definite.

Focus may only occur on the highest verb in the clause (incidentally also linearly the first one). The remaining verbs in the clause appear in AF, which functions as a default focus, as well as citation form. This is unlike voice as we know it, which usually reoccurs on every verb which has a passive interpretation, cf. English *A is required to be eaten* or, somewhat better, *It is required that A be eaten*. Since focus is a syntactic relation coreferring the finite verb with the subject of the clause, in analogy with person and number agreement in other languages, I shall henceforth refer to it as a type of agreement, namely ‘thematic agreement’; cf. (b, c) below.

Auxiliary verbs are of two categories, those bearing tense and agreement and those bearing only tense. Auxiliaries bearing only tense precede auxiliaries bearing tense and agreement, which in turn precede the main verb. As is the case with agreement, tense may only occur once per clause, i.e. on the highest verb or auxiliary. Remaining verbs or auxiliaries appear in present tense, which is the default tense (d, e).

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<sup>2</sup>Henceforth these foci will be abbreviated AF, PF, LF and IF respectively.

Clitic pronouns in Seediq, which can be either nominative or ergative<sup>3</sup>, attach after the first verbal element in the clause. Nominative pronouns corefer the finite verb whatever focus it is in, and ergative pronouns represent the agent in a passive clause (b, c).

Clausal negations follow a tense auxiliary and precede the main verb. I have no data as to their cooccurrence with agreement auxiliaries, but since negations subcategorise for a focussed verb, they must be assumed to precede an agreement auxiliary. Negations, incidentally, also demonstrate another ‘one-per-clause’ characteristic of Seediq, namely that they subcategorise for a focussed verb in the imperative mood. However, if there are two or more verbs embedded under the negation, only the first of these is in the imperative (f, g).<sup>4</sup>

- (a) Mekan ido ka Pawan  
eat AF rice KA PN  
‘Pawan is eating’
- (b) Wada mu ngalun qedin mu  
AUX-PRET 1sg take PF wife 1sg  
‘I took my wife’
- (c) Haun mu mangal qedin mu  
go PF 1sg take AF wife 1sg  
‘I’ll go get my wife’
- (d) Wada mekan ido ka Pawan  
AUX-PRET eat AF rice KA PN  
‘Pawan ate rice’
- (e) Mnekan ido ka Pawan  
eat AF PRET rice KA PN  
‘Pawan ate rice’
- (f) Ini ekan ido ka huling  
NEG eat AF IMP rice KA dog  
‘The dog doesn’t eat / hasn’t eaten rice’
- (g) Ini ku kela mbahang kari seediq  
NEG 1sn know AF IMP listen AF language people  
‘I can’t understand Seediq’

<sup>3</sup>This is naturally a question of definition. The form of the ergative is identical to the genitive, both synchronically and historically, and functions as the agent in a passive clause: I use the term ergative here because the clitic pronoun functions as an ergative here, without entering the discussion whether or not Seediq is an ergative language. In this case, the pronoun is ergative simply because the clause is passive.

<sup>4</sup>In the glosses, sg denotes singular genitive, and sn singular nominative. *ka* is an optional subject marker.

### 3 Antisymmetry and Seediq

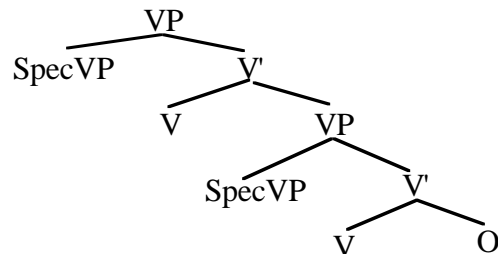
#### 3.1 The VP

It can be very misleading to base a syntactic analysis on simple clauses with only one verb. If we, for instance, exemplify German by the clause *Peter kauft das Buch*, we would find no syntactic differences between German and English, or, for that matter, Finnish, Swedish or Chinese. If, on the other hand, we use examples such as *Peter hat das Buch gekauft, ... daß Peter das Buch kaufen wollte*, we are touching on the specific properties of German syntax. For the same reasons, I shall proceed directly to analyse clauses with two verbs:

Meyah    mekan    bunga            ka    qolic  
 come AF   eat AF   sweet potato    KA   rat  
 ‘The rat will come and eat sweet potatoes’

Yahun    mekan    qolic    ka    bunga  
 come PF   eat AF   rat        KA   sweet potato  
 ‘A rat will come and eat the sweet potatoes’

Please notice that only the first verb in the clause is focussed. The second verb – or any following verb – may only be AF, which functions as a default focus. If we attempt to construct a structure tree for such a clause, we must base it on a double VP, i.e. a VP within a VP, as follows:

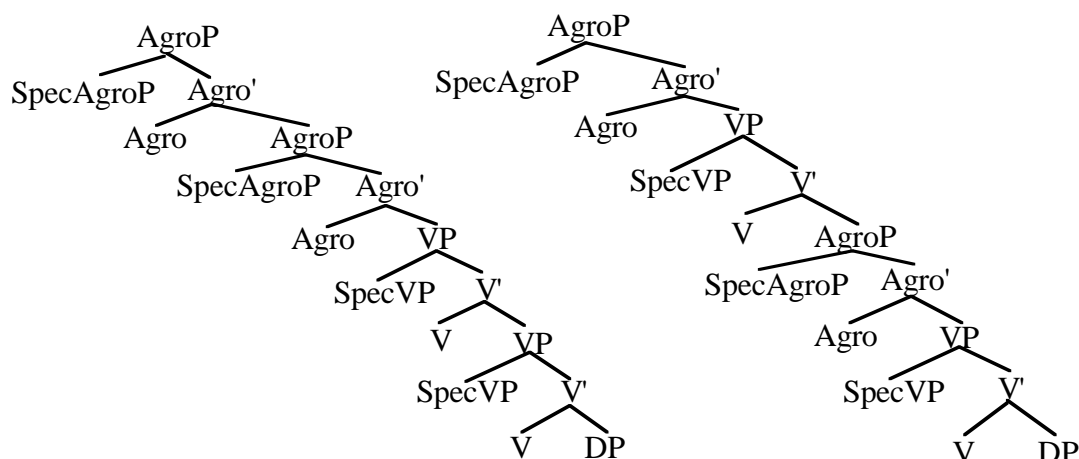


Let us first consider what structures the respective verbs require: the higher verb, being finite, requires access to a complete structure, including  $C^\circ$ . The lower verb, however, is non-finite, and can hardly be expected to require more structure than AgroP, since it is transitive. There are three ways we can combine the two required structures. In the first of these, we just assume one structure, and state that ‘to come’ does not require an AgroP, so it can be used for the transitive non-finite verb. This is illustrated by tree (1) in 1.2. The other two require one AgroP per verb, either adjacent, as in (2) below or embedded beneath the higher VP as in (3):



(2) Adjacent AgroP model

(3) Sandwiched AgroP model



I am not concerned with demonstrating which of these structures is the most likely or conventional, or even preferable. My sole interest is to see if any of these fits the extant facts of the language.

### 3.2 *Single AgroP*

We commence our analysis using a simple (single-AgroP) structure of the type shown in (1). If we assume a minimum of movement we are faced by the following positions for each element:

- (a) *Yahun* *mekan* *qolic* *ka* *bunga*  
 T Agro SpecVP O
- (b) *Meyah* *mekan* *bunga* *ka* *qolic*  
 Agrs T SpecAgroP SpecVP

This is purely ad hoc – there are no features shared by *yahun* in (a) and *mekan* in (b) – the former is PF and finite, the latter is AF and non-finite (i.e. default focus, tense and mood, in other words, embedded). The only generalisation we can make is that the subject remains in base-generated position. We see no reasons for the verbs occupying the positions which they occupy. We should at least expect the non-finite verb to be in the same position in both clauses.

Since this obviously cannot be the solution, we must continue moving elements upwards until we find a position for each which appears to have some morphological sense. We can try the minimal difference approach, finding a structure where at least finite verbs occupy one position and non-finite verbs occupy another:

Yahun mekan qolic ka bunga  
 Agrs T SpecVP O

Meyah mekan bunga ka qolic  
 Agrs T SpecAgro SpecVP

Here the finite verb occupies Agrs – although the verb occupying T is neither finite nor tensed, which certainly is a bit problematic. It is to be recalled that invisible movement can be done after spell-out, but visible movement cannot be undone after spell-out. If we put an untensed verb overtly in a T position, we cannot move it down again.

Moreover, this is not even taking into account that the respective verbs must have moved to Agrs or T from somewhere lower down in the structure – and crossed a number of head positions. That the finite verb may have done this is not a problem, but once it has passed, it has left traces in every head position, which would normally eliminate the possibility of any other verb moving up through them. In the examples above we have a non-finite verb which has climbed over the V position in which the root verb was base-generated, over Agro, which admittedly may have been left alone by the finite verb, and settled down in T, where the finite verb must have left a trace.

### 3.3 *Double AgroP*

If we instead increase the available structure by adopting model 2, the adjacent AgroP model, we find a moved position where we can place the non-finite verb, without any trace problems occurring, namely Agro<sub>2</sub>, being the lower Agro position, assuming that the upper V has jumped directly to the higher Agro position. In the PF example, we have no real problems, we have both arguments to the right of the V, in the right order. Here, again, the subject remains in base-generated position:

Yahun mekan qolic ka bunga  
 Agrs Agro<sub>2</sub> SpecV<sub>1</sub>P O

On the other hand, if we attempt to deal with the AF example, we see that the minimal movement required to generate the correct surface order brings the non-finite verb at least to Agro<sub>1</sub>, which is associated with the root verb (if it exists at all) and where therefore trace problems are expected to occur:

Meyah mekan bunga ka qolic  
 Agrs Agro<sub>1</sub> SpecAgro<sub>2</sub>P SpecV<sub>1</sub>P

We therefore must conclude that an adjacent AgroP structure of type 2 cannot account for the data in Seediq double-VP constructions. Or, more exactly, if we can accept the trace violation in type 2, we can accept it just as easily in type 1, i.e. with a simple structure. Let us take a look at the results of attempting to insert the sentences into a structure of type 3. In the PF example, the patient is clause final, but we are still faced by the problem of the lower verb having to occupy a position no lower than Agro<sub>1</sub>, which is associated with the higher verb.

Yahun	mekan	qolic	ka	bunga
Agrs	Agro <sub>1</sub>	SpecV <sub>1</sub> P	O	

Still, the AF example creates the same problems – the lowest possible position we can claim for the subject is the position where it was generated. All positions above that are associated with the finite verb. We still find an element moving into a position which is blocked by a trace, in this case possibly even more flagrantly than in the preceding example:

Meyah	mekan	bunga	ka	qolic
Agrs	T	SpecAgro <sub>1</sub> P	SpecV <sub>1</sub> P	

We therefore can see that no type of double AgroP construction, whether adjacent or sandwiched, can solve our word order problems. Are there any other possible solutions? The most extreme form of duplicating structure, and one of the few paths left to try, is to treat clauses with two verbs as consisting not only of a double VP or a double AgroP, but in fact of a double clause: one clause embedded within the other. If we try this solution, we see that the verb of the root clause must be in agreement with the grammatical subject of the embedded clause, whereas the root clause cannot have an overt subject. The non-finite verb would still have to move up at least one level to allow for two argument positions to its right. Again, in the case of AF, the agent would follow the patient, the patient would thus have had to move up to SpecAgroP. For the non-finite verb to precede the patient, it would again have to move to T position (at least). Here, of course, no trace effects would occur, since the finite verb would be in the next clause up. Still, the position of a non-tensed verb in T is a bit difficult to explain, as is the fact that the subject of the embedded clause agrees grammatically with the verb of the root clause. This path seems to lead to a dead end as well.

Therefore, we can note that the antisymmetry model does not work particularly well for Seediq. Even the enormous structures given us by the split-INFL characteristics of Minimalism cannot change the fact that a non-

finite verb which only carries default morphology fits most suitably on a level no higher than Agro, if it is transitive, and if it is followed by first a patient and then an agent, as in a typical active clause, then either a) the base-generated structure does not obey Kayne's antisymmetry, or b) one of them has moved rightwards. It is my intention to prove that both of these statements are true.

## 4 Seediq clause structure

### 4.1 Right movement

We can start examining the double-VP examples which were so problematic for the antisymmetric model once again. They are repeated below:

Meyah    mekan bunga            ka qolic  
 come AF   eat AF   sweet potato   KA rat  
 'The rat will come and eat sweet potatoes'

Yahun    mekan qolic ka bunga  
 come PF   eat AF   rat   KA   sweet potato  
 'A rat will come and eat the sweet potatoes'

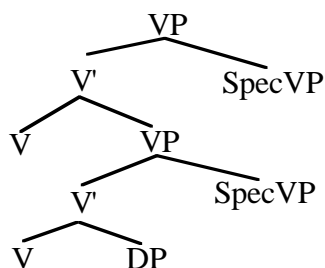
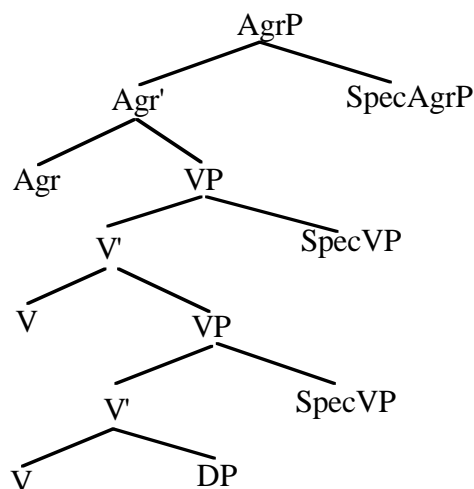
The linear structure can be summarised as follows, where 'focus' means the focussed verb, V the unfocussed non-finite verb, X a non-subject argument, and Subject the grammatical subject in thematic agreement with the focussed verb.

Focus – V – X – Subject

If we start by considering the non-finite verb as being located in the V position, we see that no matter what focus we have, all arguments follow it. We can follow minimalism in saying that both arguments may have moved out of the VP to their respective Agreement positions (SpecAgroP and SpecAgrsP). If they have, they have moved rightwards, since they are to the right of the non-finite verb. If they have not, they were to the right of the V all the time, and we have a right-Spec VP.

So far we have demonstrated beyond reasonable doubt that some level in Seediq, either VP or some functional node above it, must have a right-specifier. To start off with the first assumption, let us stipulate a right-Spec VP. Since we will presently be dealing with a double-VP construction, we need a duplicated structure. In the following diagramme, the upper V represents the verb 'to come' in our previous examples (*meyah/yahun*, depending on focus). The lower V represents the verb 'to eat' (*mekan*). We can consider both of these to remain in their base-generated position, since there is no direct evidence that they move anywhere.

(4)



In the AF example, the patient and the agent are base-generated in the correct surface order, both with respect to one another and with respect to the verbs. As far as AF is concerned, we need not stipulate any movement at all. The remainder of the structure can follow Kayne's antisymmetrical hypothesis – since nothing ever moves into it.

In the PF example, however, we see that the patient is to the right of the agent. This cannot have been caused by leftward movement of the agent, since there is no room within the VP, and leftward movement out of the VP would bring the agent to the left of the verbs, which again would yield the wrong order. Granted, one of the verbs could have moved leftwards, but this would leave traces which would block movement by the non-finite verb. Since the agent follows both verbs, the patient must have moved rightwards.

Where has the patient moved? Minimally, we can say that it has climbed one level, and that AgrP also is a right-Spec phrase. However, since this movement only takes place when it is a subject, either TP or AgrsP is a more suitable choice. Once we have accepted the existence of one subject position to the right of the VP, it is, initially at least, not particularly important which phrase it is. We can call it AgrP, so as not to have to choose between Agro

and Agrs. A phrase naturally needs a head. Mirroring the structure of VP, we can stipulate that AgrP is left-headed (4).

If we accept overt subject-to-SpecAgrP movement for patient subjects, there is no reason why we should not accept it for agent subjects, although such movement is not directly visible. Note that ‘not directly visible’ in this case does not mean ‘covert’ or ‘invisible’, but simply trivially visible, since the movement does not cross any phonetic material. It would simplify the model if we assume that the subject always moves to the same position.

Given the structure above, and on the assumption that all subjects move to SpecAgrP, we can specify the following features for our one level so far:

	Agr	
Head	Spec	
W	S	

This is in most cases all the structure and all the features we need. There occur no other movements with the arguments which could be taken as evidence that there is more structure. However, for the sake of fairness, we should perhaps also test the other suggestion mentioned earlier, namely that the VP is right-branching, and arguments have to move rightwards out of the VP in all examples. In the AF example, the agent must move rightwards across the verbs, again to the VP-external subject position, SpecAgrP, whereas the patient can remain in the O position. In the PF example, the patient must move up to the subject position so as to be clause-final, and the agent must also move rightwards across the verbs.

The problem is of course where the agent goes. However we choose to solve this, we require another level between the VP and subject position, which would otherwise not be needed. Should we postulate an agent agreement phrase, AgraP? If we do, then its occurrence must be restricted to passive clauses, and must thus be subcategorised by the focus of the clause. Clause structure is normally assumed to be a product of the subcategorisation properties of the verb. In that case, focus has lost its clausal characteristics, and has become a property of the verb – and thus of each verb, which contradicts the facts.

The only possible alternative would be either to right-adjoin the agent to the VP, which seems a rather odd idea, or to allow the agent to move downwards into object position and land on a trace, which must be considered illicit. A left-Spec VP can under no circumstances lead to the correct results, no matter what else we move in the clause.

We have thus proved that both VP and at least one functional category which deals with subject properties are Spec-right. Likewise, we have found that this functional category has a strong specifier feature and a weak head feature. Note, however, that the weakness of the head feature follows from the principle that overt movement is costly, and not from any evidence on the linear string. So far, the head feature of Agr is either strong or weak, depending on what we want it to be.

## 4.2 Higher categories

*4.2.1 Tense.* In order to be able to specify the features of our functional category or categories more clearly, we must examine longer clauses, and see how they fit in. We noted in our description of Seediq in section 2 that tense auxiliaries precede focussed verbs. Since we expect the function of Agr to be to coreference the focus of the verb with the grammatical subject, we can postulate another level which is responsible for the tense of the clause. This is not particularly revolutionary, in this we simply follow the Minimalist Program. We thus stipulate TP to be the next level above AgrP. The most important characteristic of TP is that it is head-initial. The position of SpecTP is irrelevant, since nothing ever goes there, so we can accept the anti-symmetrical model in this case. This covers examples such as the following:

- (a) Wada           mekan ido ka Pawan  
 AUX-PRET   eat AF   rice KA   PN  
 ‘Pawan ate rice’
- (b) Mnekan       ido ka Pawan  
 eat AF PRET   rice KA   PN  
 ‘Pawan ate rice’
- (c) Wada           puqun qolic ka bunga  
 AUX-PRET   eat PF   rat   KA   sweet potato  
 ‘A rat ate the sweet potatoes’

In example (b) we see that the main verb can be base-generated with tense if there is no overt tense auxiliary. This implies that the main verb must move to T° to check its tense, unless the tense auxiliary occupies this position. Such movement may at this stage be either overt or covert, so we need not specify any features for TP – its head feature can be either weak or strong, and its specifier feature can be either weak or strong if we treat it as being a right-Spec phrase. If it is a left-Spec phrase, its specifier feature is obligatorily weak.

4.2.2 *Negation.* What other functional categories do we have in Seediq? Naturally, we have negations, which function as heads, since they subcategorise a following focussed verb in the imperative mood. These follow the tensed auxiliary, if there is one, and can thus be assumed to occupy an intervening level between AgrP and TP. We assume that NegP is only generated in negated clauses, and we see no need for any SpecNegP, but if it exists, it must either be a right-hand specifier, or have obligatorily weak specifier features.

The cooccurrence of negations with tensed auxiliaries and focussed verbs is illustrated below. For the moment we can ignore the positions of the clitic pronouns, these will be dealt with in the next section.

Maha ku ini kela  
 FUT 1sn NEG know AF IMP  
 ‘I won’t know’

Wada su mu ini qtayi  
 AUX-PRET 2sn 1sg NEG see PF IMP  
 ‘I didn’t see you (a long time ago)’

4.2.3 *Complementizer.* There is one more functional head which we need to postulate to complete the picture: the base-generation position of a subjunction in a subordinate clause –  $C^\circ$ . CP is a part of both MP and GB, and we can thus follow a general consensus in claiming its existence. Since the subjunction is clause-initial, we assume that CP is left-headed, following both Kayne’s model and that which we have seen holds for VP and AgrP in Seediq. As far as SpecCP is concerned, we will deal with its position presently. Here we see an example of a subordinate clause with a subjunction, a tense auxiliary, a negation and a focussed verb.

Netun ku na wada ini tai...  
 if 1sn 3sg AUX-PRET NEG see PF IMP  
 ‘If he didn’t see me...’

If we now return for a moment to the clitic pronouns, we see that they occur between the subjunction and the tense auxiliary. We cannot stipulate that they appear in a specifier position such as SpecTP, since only clitic pronouns ever occur in this position, and it would be difficult to claim that the specifier feature of TP is strong for clitic pronouns and weak for NPs – the fact that that we are dealing with clitic pronouns seems to indicate that they actually are cliticised to either C (enclitic) or T (proclitic). There are no clear criteria which can help us to choose which of these we are dealing with, but



since the clitic can appear even when the  $T^\circ$  node is not obviously filled, we find the enclitic model more appealing. Moreover, we have phonological data to support us. A monosyllabic clitical pronoun usually forms one phonological word with the element preceding it, whereas this never occurs with the element following it. The occurrence of the clitic pronoun without a tense auxiliary is illustrated by the following example.

Netun su ini eyah ...  
 if 1sn NEG come AF IMP  
 ‘If you do not come ...’

Thus, we claim that the clitic pronoun (or pronouns) must move overtly to a position enclitic to C. How this is to be expressed in terms of features is not obvious, but we can preliminarily state that CP has a strong ‘clitic feature’. It is at any rate rather clear what the structure looks like.

It will be recalled from section 2 that the clitic pronoun in Seediq always occurs after the first verbal element in the clause. It can follow a tense auxiliary, a negation, an agreement auxiliary or a main verb, as illustrated below:

Wada	ku	ini	eyah		Ini	ku	kela
AUX-PRET	1sn	NEG	come AF IMP		NEG	1sn	know AF IMP
‘I didn’t come’					‘I don’t know’		

Mnekan	ku	ido	
eat AF PRET	1sn	rice	
‘I have eaten’			

It follows that all of these must move to C in overt syntax – the only exception being if there is a higher category which moves into C instead. So for example, if C is filled by a subjunction, nothing else can go there, and the other heads remain in lower positions. If C contains no subjunctions, a tensed auxiliary, if there is one, may move there. If there is no tensed auxiliary, a negation may move there. If there is no negation, a focussed auxiliary or verb may move there. In the last example above, the main verb, coming from V position, has moved overtly to  $C^\circ$ , having acquired focus and tense on the way. It has passed through each of the intervening heads.

We can therefore establish that the head feature of  $C^\circ$  is strong, and that the only thing which can stop a verb or auxiliary from moving up to  $C^\circ$  is the existence of intervening traces or elements. V to C is always overt unless blocked. We can generalise this even further, and state that each head must move up overtly until it meets a blocked head position. If there is a tensed

auxiliary, the main verb cannot move to  $T^\circ$  and may not be tensed. If there is a focus auxiliary, the main verb may not move to  $Agr^\circ$  and may thus not be focussed. This may hold for either covert movement or overt movement – in most cases, we have no direct evidence as to whether the movement takes place before or after split-off.

Since, however, each of these heads must at some point be filled overtly, namely when its corresponding auxiliary actually occurs in the clause, since it must have a node to occupy, we are forced to specify each of the head-features as being strong in some cases, which implies that they must always be strong. This means that covert movement of heads in Seediq does not occur. Whatever moves on the left-hand side, does so overtly, and only filled nodes may block movement.

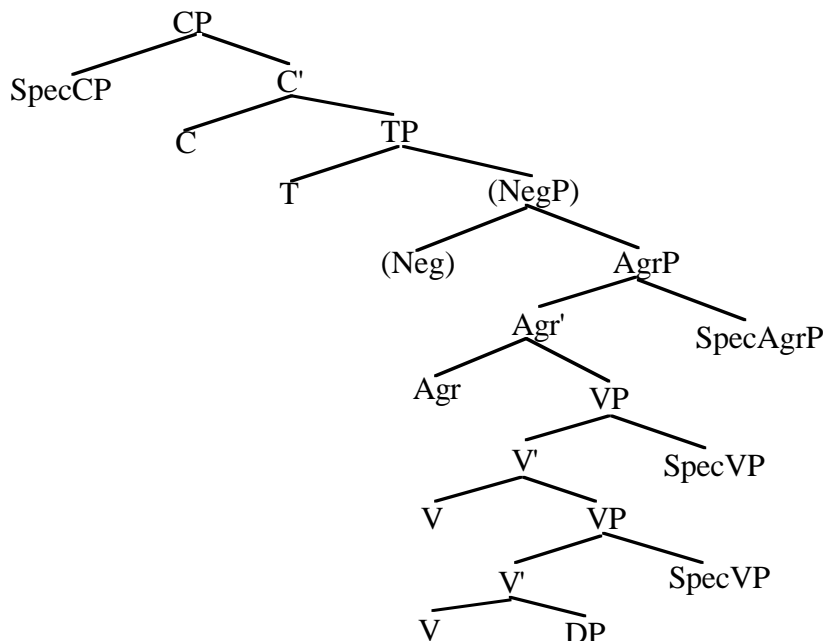
#### *4.3 SpecCP*

Let us return for a moment to the specifier side of the question. We have established that  $AgrP$  has a right-Spec. We have likewise established that the position of  $SpecTP$  is irrelevant, since it is never needed. We have still not said anything about  $SpecCP$ . The first question whether it at all is needed, and if so, where.

The word order of Seediq as described in section 2.2 is (X)VOS. X is in this case a voluntary topic, which may either be an argument, or a clause, or an adverbial. It functions more or less like English topics of the ‘as for’ type. Such pre-verbal topics in Seediq may be coreferent with the focussed verb, but need not be. If they are coreferent with the verb, the clause-final subject position is often (but not always) empty. This could be taken to imply that the subject has moved there from  $SpecAgrP$ . If this is so, it has moved to some position left of C, and the only possible node is  $SpecCP$ , unless we are willing to postulate a new functional category such as Topic. If we accept topics as occurring in  $SpecCP$ , we have a clear parallel to Germanic V2 languages, where one element must precede the finite verb in a main clause, it may be the grammatical subject, but it may also be something else. The distinction is that Seediq  $SpecCP$  may be empty.

#### *4.4 The Seediq tree*

We have thus arrived at a syntactic model which covers all relevant word order facts of Seediq. It has some features which diverge from the standard Minimalist model, especially as exemplified by Kayne’s anti-symmetrical hypothesis. The tree structure of a Seediq clause is illustrated below:



The structural tree is minimal in that it only contains those categories for which we have any evidence. Only those specifiers which have any function in the clause are included. Theoretically, we could include AgrP between AgrP and VP (or basically anywhere) – it would make no difference, since nothing would ever go there overtly.

The overt movements I have postulated are minimal in that I only claim that they occur when the node to which a lower element could move in some cases requires a strong head or specifier feature. In such situations I claim that the corresponding feature is always strong. The features of the categories which I have reconstructed for Seediq are as follows:

Agr	Neg	T	C
Head	Spec	Head	Spec
S	S	S	S
	Ø	Ø	W/S

Neg and T have no specifier features, since they have no specifiers. If we insist that they have specifiers, then the specifier features can be either weak or strong, depending on our preferences.

## 5 Summary and conclusion

We have demonstrated that the Antisymmetric Hypothesis as presented by Kayne does not correspond to the facts in Seediq – there is no possible combination of features for elements in a Seediq clause which could produce the word order of Seediq, unless we allow for the possibility of right-handed specifiers and rightward movement. By rightward movement I am referring to

right movement which takes place under the same conditions and for the same reasons as leftward movement.

We have also, in section 4, constructed a structure tree for Seediq which can generate all the clauses which we hitherto have met in Seediq, and which, moreover, appears to do this using rather plausible rules, which are recapitulated here:

The highest verb in the clause can (and must) move upwards and, upon landing in Agr and T respectively, becomes focussed and tensed. The fact that this verb moves creates a chain of traces which blocks any other verb from moving upwards. Any non-subject NP remains within the VP, the patient in the object position and the agent in SpecVP. When an NP is chosen as subject of the clause, so as to mark it as being definite, it moves to subject position, which is SpecAgrP (or SpecTP). The thematic role of this subject is then identified by the Spec-Head relation holding between focus in Agr and the subject position in SpecAgrP.

We have shown that the structure tree must have the appearance as above, with VP and at least one functional category being Spec-right phrases. It is interesting to note that if we assume the above tree, we never actually need to postulate covert movement. The only case where it might be required to stipulate covert movement in Seediq is to Agro – however, we do not know what Agro looks like in Seediq, or where it is. In fact, there is no clear evidence that Agro exists at all in Seediq. The question is then: should we postulate a category which we do not know where to locate, a category for which we have no direct evidence, save that we expect objects to move there covertly, when this would be the only example of covert movement which our analysis would require? Should we treat overt movement as costly and favour covert movement – or should we perhaps try to avoid covert movement and favour movement which we can see?

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