

# On the Lack of Subject-Object Asymmetries\*

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## 1 Introduction

The present article deals with Bavarian data that do not show any subject-object asymmetry (Bayer (2001), von Stechow and Sternefeld (1988) and references therein). Both embedded objects (1-a) and subjects (2-a) can topicalize to the matrix clause. Optionally pied-piping of the embedded CP is possible in these constructions (1-b) and (2-b). We refer to these constructions as *Long Distance Topicalization* (LDT):

- (1) a. [An Regenschirm]<sub>1</sub> hot da Michl gsogt [<sub>t<sub>1</sub></sub> dass da Hauns <sub>t<sub>1</sub></sub>  
an umbrella has the Michael said that the John  
kafft]  
buys  
b. [[An Regenschirm]<sub>1</sub> dass da Hauns <sub>t<sub>1</sub></sub> kafft]<sub>2</sub> hot da Michl  
an umbrella that the John buys has the Michael  
gsogt <sub>t<sub>2</sub></sub>.  
said  
'Michael said that John buys an umbrella'
- (2) a. [Da Kaunzler]<sub>1</sub> hot da Hauns docht [<sub>t<sub>1</sub></sub> dass <sub>t<sub>1</sub></sub> ned singa kaun]  
the chancellor has the John thought that not sing can  
b. [[Da Kaunzler]<sub>1</sub> dass <sub>t<sub>1</sub></sub> ned singa kaun]<sub>2</sub> hot da Hauns docht <sub>t<sub>2</sub></sub>  
the chancellor that not sing can has the John thought  
'John thought that the chancellor cannot sing.'

The paper generalizes Kayne (1984)'s notions *left branch* and *g-projection* in terms of Merge, so that no recourse to "left" and "right" is necessary. This is done by excluding specifiers and adjuncts from probe-goal relations in general by a *Generalized Left Branch Condition* (GLBC). The paper tries to incorporate into this account the lack of subject-object asymmetries in LDT by suggesting that scrambling can recalculate the labels created by External Merge (EM). It is then argued that A'-relations remerge the originally externally merged syntactic object (SO).

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## 2 On the nature of Specifiers

### 2.1 *was für* split in German

In the present section German *was für* split is used as heuristic to investigate the nature of movement from specifier positions on the one hand and complement positions on the other. *was für*-phrases descriptively have a small clause (SC) make up (3-a), and as shown in (3-b) the *wh*-DP can be separated from the PP<sup>1</sup> (where English translations of the words are used):<sup>2</sup>

- (3) a. [ ... [DP [DP what] [PP for DP]] ... ]  
 b. [XP [DP what]<sub>1</sub> ... [DP t<sub>1</sub> [PP for DP]] ... ]

Consider the following example of *was für* split in an object DP, where (4-a) shows movement of the complete DP, whereas (4-b) exhibits movement of the *what*-element alone:

- (4) a. [Was für Jagdbücher]<sub>1</sub> hat Heidegger wohl t<sub>1</sub> gelesen?  
 what for hunting books has Heidegger maybe read  
 b. Was<sub>1</sub> hat Heidegger wohl [t<sub>1</sub> für Jagdbücher] gelesen?  
 what has Heidegger maybe for hunting books read  
 'Which kind of hunting books did Heidegger maybe read?'

But this split is impossible in the case of the subject in (5-b):

- (5) a. Was für Leute lesen wohl Bücher von Heidegger?  
 what for people read probably books by Heidegger  
 'What kind of people probably read books by Heidegger?'  
 b. \*Was<sub>1</sub> lesen [t<sub>1</sub> für Leute] wohl Bücher von Heidegger?  
 what read for people probably books by Heidegger

<sup>1</sup>That this is an instance of a long-distance dependency can be seen by the following violation of the Coordinate Structure Constraint:

- (i) \*Was lesen die Philosophen für Bücher und solche Zeitungen?  
 what read the philosophers for books and such newspapers

<sup>2</sup>The detailed analysis of *was für* split is at the moment not important. What is important is that the present assumptions are compatible with approaches in Abels (2003), Leu (2007), Moro (2000), and others, where essentially the SC structure is assumed too. For references see the works cited above.

Note that the preposition in the *was für* constructions does not mark the DP with case. Case assignment is done structurally.

On the other hand, the following data suggest that it is not the case that the split is possible with objects and impossible with subjects per se. Rather it is the case that the split results in ungrammaticality, if the DP from which extraction takes place, has undergone prior movement. Consider (6), where the object is scrambled out of the vP-domain, which is marked by moving it across the particles *nur* and *immer*. *wohl* in (5-b) above is such a particle too:

- (6) \*Was<sub>1</sub> lesen [<sub>t<sub>1</sub></sub> für Bücher] nur immer Philosophen?  
 what read for books always only philosophers

The object must be in the vP (7):

- (7) Was<sub>1</sub> lesen Philosophen nur immer [<sub>t<sub>1</sub></sub> für Bücher]?  
 what read philosophers only always for books  
 'What kind of books do only philosophers always read?'

Interestingly this also interacts with extraction from subjects. If they are within vP (8-a) extraction is possible, otherwise not (8-b):<sup>3</sup>

- (8) a. Was<sub>1</sub> lesen solche Bücher nur immer [<sub>t<sub>1</sub></sub> für Philosophen]?  
 what read such books only always for philosophers  
 'Which kind of philosophers only read such books?'

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<sup>3</sup>Haider (1993) argues wrt. (i) that the ungrammaticality is not due scrambling, but due to the fact that scrambling of a *wh*-phrase cannot be to the left of particles like *denn* and therefore also not to the left of *nur* and *immer* (contra Diesing (1992):

- (i) \*Wem hat [was für Witze]<sub>1</sub> denn damals jeder von euch <sub>t<sub>1</sub></sub> erzählt?  
 who-DAT has what for jokes PRT then everyone of you told

As far as (i) is ungrammatical, it merely shows that *wh*-elements are not interpretable in the position indicated. If (i) is ungrammatical, then the unmoved variant (ii-a) is too. But still dependencies with in-situ positions are clearly entertained, in fact must be so for  $\theta$ -reasons. (i) can therefore not constitute a problem:

- (ii) a. \*Wem hat jeder Kellner denn damals was für Witze erzählt?  
 who-DAT has every waiter PRT then what for jokes told  
 b. Wem hat jeder Kellner denn damals solche schmutzigen Witze  
 who-DAT has every waiter PRT then such dirty jokes  
 erzählt?  
 told  
 'To whom did every waiter tell such dirty jokes?'

- b. \*Was<sub>1</sub> lesen [<sub>t<sub>1</sub></sub> für Philosophen] nur immer solche Bücher?  
 what read for philosophers only always such books

These constructions replicate the findings by Broekhuis (2005) for Dutch and also Müller (2007). What one finds is that in German extraction from subjects is possible as much as it is possible to extract from complements. The restriction on subextraction can be phrased in the following way: subextraction is possible from any constituent as long as it is within vP. This contradicts Chomsky (2005)'s assumption that extraction from external arguments (EA) is always barred (see also Broekhuis (2005) who makes the same point for Dutch).

## 2.2 Extraction of and from specifiers

In what follows we will give a rationale, why movement of specifiers and extraction from them in many cases yields ungrammatical results. In particular, a minimalist rendering of the notion *g-projection* (Kayne, 1984) is given.<sup>4</sup> The restriction on Internal Merge (IM) in (9) is assumed in the rest of the paper. Further it is assumed that a probe-goal relation induces Agree, which can lead to IM of the agreeing XP:

- (9) *Internal Merge:*  
 IM at derivational stage  $\Sigma_i$  applies to minimal/ maximal SOs on the same projection line as the head H inducing IM by Agree, thus to an SO formed at stage  $\Sigma_{i-1}, \Sigma_{i-2}, \dots, \Sigma_{i-n}$  including the SO from  $\Sigma_1$ .

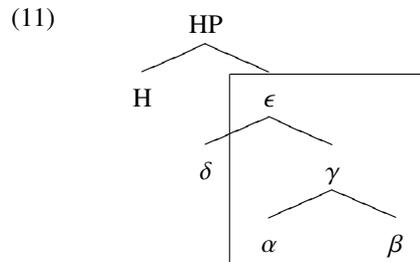
Projection line is defined as follows:

- (10) *Projection Line:*  
 A projection line goes from node  $\alpha$  to  $\beta$ , if the head of  $\alpha$  selects for  $\beta$ .  
 By transitivity, if the head of  $\beta$  selects for  $\gamma$ , the projection line goes from  $\alpha$  to  $\gamma$ .

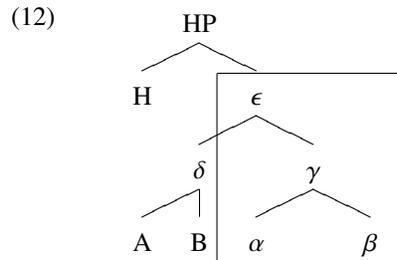
This has the following consequence. Specifiers are not probable and can therefore not undergo IM. In (11) H can reach  $\{\alpha, \beta, \gamma, \epsilon\}$ , if  $\delta$  is the specifier of  $\alpha$  (only the boxed SOs can be probed):

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<sup>4</sup>It should be noted that the present formulation neither does all the work that Kayne's original proposal in terms of government did, nor is it supposed to do so. Rather it is intended as an intuitive formalization for why asymmetric behavior wrt. extraction arises. Other work using a similar notion of projection line is (Abney, 1987), and (Brody, 1998).



But since specifiers cannot be reached by a probe, it also follows that no element dominated by a specifier can undergo IM. This is expressed in (12):



This situation can be subsumed under the notion of a *Generalized Left Branch Condition* (GLBC) (cf. Gazdar (1981) for a similar formulation). I.e. extraction of an SO  $\alpha$  merged at a derivational stage that is not the first-merge stage ( $\Sigma_{1+i}$  under the formulation above) is barred unless certain licensing conditions apply.

This will account for a portion of the *was für* split data reviewed in the preceding section. In particular IM of the object above vP and also of the subject disallows subextraction from both. Under the present assumptions this means that they are (re)merged after the first-merge stage, which is outside of the particles *nur* and *immer*. But then the question arises, how extraction from the subject is ever possible. Recall the following data from above, repeated in (13). When the object is scrambled to [Spec,vP], extraction from the subject becomes possible all of a sudden:

- (13) Was<sub>1</sub> lesen solche Bücher nur immer [<sub>1</sub> für Philosophen]?  
 what read such books only always for philosophers  
 'Which kind of philosophers only read such books?'

It will not suffice to associate the extractability with selection, because then one would make the prediction that, for instance, French post-verbal subjects

should allow subextraction, contrary to fact (for arguments that subjects are generated in [Spec,VP] see Mayr (2007b)). Consider the transitive (14), which contrasts with the unergative in (15), where extraction is possible:

- (14) \*Combien<sub>1</sub> l'ont lu de gens t<sub>1</sub>?  
 how many it have read of people
- (15) a. Combien<sub>1</sub> crois-tu qu'ont dormi t<sub>1</sub> d'étudiants ici?  
 how many think you that have slept of students here  
 'How many of the students do you think slept here?'  
 b. Combien<sub>1</sub> crois-tu qu'ont dormi t<sub>1</sub> de gens ici?  
 how many think you that have slept of people here  
 'How many of the people do you think slept here?'

One of the possible solutions that one can draw for German scrambling is that the labels created upon EM are recalculated once an XP undergoes scrambling. In other words only the last label created by IM is relevant for this XP. Consider the structures in (16), where the subject is completely in the VP after scrambling of the object has occurred. This is indicated by changing the label of the first VP-level (16-b):

- (16) a. before scrambling: [<sub>VP</sub> v [<sub>VP</sub> Subj [<sub>VP</sub> V Obj]]]  
 b. after scrambling: [<sub>VP</sub> Obj<sub>1</sub> [<sub>VP</sub> v [<sub>VP</sub> Subj [<sub>V</sub> V t<sub>1</sub>]]]]

After scrambling the subject is both selected by V and structurally within VP, i.e. dominated by all the segments of VP. This is not the case for other types of movement, in particular for instances of cliticization in (14) (this goes against the assumptions made by Sportiche (1996)). This further suggests that segments in the sense of Kayne (1994) and May (1985) play a role in syntax, which leads to the following descriptive refinement of the GLBC (17) from above:

- (17) *Generalized Left Branch Condition:*
- a. Extraction of an SO  $\alpha$  merged at derivational stage  $\Sigma_{1+i}$  is barred unless licensing conditions apply.
- b. An SO  $\alpha$  can only undergo IM if it is dominated by all segments of the projection it is contained in (i.e. if it is a complement or becomes one by scrambling the original complement).

This assumption about scrambling is supported by the well-known restriction on reconstruction of scrambled elements (see e.g. (Haider, 2006) for principle A (18-b) and principle C (19-b):

- (18) a. dass Hans die Briefträger<sub>i</sub> einander<sub>i</sub> vorstellte.  
 that John the mailmen each other introduced  
 'that John introduced the mailmen to each other.'  
 b. \*dass Hans einander<sub>i</sub> die Briefträger<sub>i</sub> vorstellte.  
 that John each other the mailmen introduced
- (19) a. weil ihm<sub>\*i/j</sub> [jedes Buch von Hans<sub>i</sub>] vorgelesen wurde.  
 because him every book by John read to was  
 b. weil [jedes Buch von Hans<sub>i</sub>] ihm<sub>i/j</sub> vorgelesen wurde.  
 because every book by John him read to was  
 'because every book by John was read to him.'

Having established, how extraction from subjects is possible in German and therefore, given the GLBC, how subjects are probable in German, we will now proceed to investigate LDT in Bavarian.

### 3 Long-distance topicalization in Bavarian

Consider again the central data from section one above. Both embedded objects (20-b) and subjects (22-b) can undergo LDT. In addition, though, the whole embedded CP can be pied-piped in both cases, (20-c) and (22-c). In this case the DP first moves to the embedded [Spec,CP] and then pied-pipes it. This is evidence for successive-cyclic movement as observed in (Bayer, 2001). It is impossible, though to leave the DP in the embedded [Spec,CP] without movement to the matrix clause, (21) and (23). I.e. there is full symmetry between subjects and objects in LDT:

- (20) a. Da Michl hot gsogt [dass da Hauns an Regenschirm kafft]  
 The Michael has said that the John an umbrella buys  
 b. [An Regenschirm]<sub>1</sub> hot da Michl gsogt [<sub>t<sub>1</sub></sub> dass da Hauns <sub>t<sub>1</sub></sub>  
 an umbrella has the Michael said that the John  
 kafft]  
 buys  
 c. [[An Regenschirm]<sub>1</sub> dass da Hauns <sub>t<sub>1</sub></sub> kafft]<sub>2</sub> hot da Michl  
 an umbrella that the John buys has the Michael  
 gsogt <sub>t<sub>2</sub></sub>.  
 said  
 'Michael said that John buys an umbrella'
- (21) \*Da Michl hot gsogt [ [an Regenschirm]<sub>1</sub> dass da Hauns <sub>t<sub>1</sub></sub> kafft]  
 the Michael has said an umbrella that the John buys

- (22) a. Da Hauns hot docht [dass da Kaunzler ned singa kaun]  
 the John has thought that the chancellor not sing can  
 b. [Da Kaunzler]<sub>1</sub> hot da Hauns docht [t<sub>1</sub> dass t<sub>1</sub> ned singa  
 the chancellor has the John thought that not sing  
 kaun]  
 can  
 c. [[Da Kaunzler]<sub>1</sub> dass t<sub>1</sub> ned singa kaun]<sub>2</sub> hot da Hauns docht t<sub>2</sub>  
 the chancellor that not sing can has the John thought  
 'John thought that the chancellor cannot sing.'
- (23) \*Da Hauns hot docht [[da Kaunzler]<sub>1</sub> dass t<sub>1</sub> ned singa kaun]  
 the John has thought the chancellor that not sing can

Let us propose the following tentative representations for the data above. It is still unclear, where exactly the topicalized DP moves to in the matrix clause. One possible option is dislocation, but it will be shown in the following section that this cannot be the case:<sup>5</sup>

- (24) *Extraction of DP alone:*

[<sub>CP</sub> ... DP<sub>1</sub> ... [<sub>C'</sub> ... [<sub>CP</sub> ... t<sub>1</sub> ... ]]]

- (25) *Extraction of DP+CP:*

[<sub>CP</sub> ... [<sub>CP</sub> [ ... DP ... ]]<sub>1</sub> ... [<sub>C'</sub> ... t<sub>1</sub> ... ]]

### 3.1 Closer analysis

In this section arguments are given that LDT cannot be analysed as involving left-dislocation (LD). Consider a case of LD:

<sup>5</sup>That these constructions have to be assumed to involve genuine movement is suggested by the fact that both the CNPC (i) and the CSC (ii) are obeyed:

- (i) \*[\_<sub>DP</sub> Da Hauns]<sub>1</sub> hosst d'Maria [\_<sub>DP</sub> des Gerücht [<sub>CP</sub> t<sub>1</sub> dass t<sub>1</sub> da Chef is]  
 the John hates the Mary the rumour that the boss is
- (ii) \*[\_<sub>DP</sub> Da Hauns]<sub>1</sub> sogt d'Maria [\_<sub>CP</sub> [<sub>CP</sub> t<sub>1</sub> dass t<sub>1</sub> auf Wallfort is] [<sub>CP</sub> und  
 the John says the Mary that on pilgrimage is and  
 dass d'Lisa in da Stod is]]  
 that the Lisa in the city is

- (26) [<sub>CP</sub> Den Buam [<sub>CP</sub> den [<sub>C</sub> kon I ned leidn]]]  
       the boy       him     can I not stand]  
       'I cannot stand this boy.'

LD is compatible with *wh*-elements in [Spec,CP], which supports the claim that LDED elements are in a higher position than the canonical [Spec,CP]:

- (27) [<sub>CP</sub> Den Typ<sub>i</sub> [<sub>CP</sub> wer [<sub>C</sub> kennt den<sub>i</sub> schon]]]  
       the guy     who     knows him anyway  
       'Who knows this guy anyway?'

LDT on the other hand is incompatible with a *wh*-element in [Spec,CP] suggesting that the LDTed DP itself occupies the matrix [Spec,CP]:

- (28) a. \*[[<sub>LD</sub> [<sub>DP</sub> Der Typ]<sub>1</sub> wer frog<sub>t</sub> [<sub>t</sub><sub>1</sub> ob <sub>t</sub><sub>1</sub> im Wirtshaus sitzt]]  
       the guy who asks       if in tavern sits]  
       b. \*[[<sub>LD</sub> [<sub>DP</sub> Der Typ]<sub>1</sub> [<sub>CP</sub> wer [<sub>CP</sub> <sub>t</sub><sub>1</sub> ob <sub>t</sub><sub>1</sub> im Wirtshaus sitzt] [<sub>C</sub>  
       the guy       who       if in tavern     sits  
       frog<sub>t</sub>]]]]  
       asks  
       c. \*[[<sub>LD</sub> [<sub>DP</sub> Der Typ]<sub>1</sub> ob <sub>t</sub><sub>1</sub> im Wirtshaus sitzt] [<sub>CP</sub> wer [<sub>C</sub> frog<sub>t</sub>]]]  
       the guy if in tavern sits     who asks]

Rather the V2-property is strictly adhered to in these constructions:

- (29) a. [[Der Typ]<sub>1</sub> frog<sub>t</sub> wer [<sub>t</sub><sub>1</sub> ob <sub>t</sub><sub>1</sub> im Wirtshaus sitzt]  
       the guy asks who if in tavern sits]  
       b. [[[Der Typ]<sub>1</sub> ob <sub>t</sub><sub>1</sub> im Wirtshaus sitzt]<sub>2</sub> frog<sub>t</sub> wer <sub>t</sub><sub>2</sub>]  
       the guy if in tavern sits asks who  
       'Who asks, whether this guy sits in the tavern?'

Another argument can be given. Bayer (2001) notes that quantifiers can appear freely in environments of LDT, (31) but not in LD (30):

- (30) \*Jeden,     den kennan die Leit.  
       everyone, him know the people  
       (31) Jeder<sub>1</sub> glaubt da Hauns [<sub>t</sub><sub>1</sub> dass <sub>t</sub><sub>1</sub> die Leit kennt]  
       everyone thinks the John that the people knows

Therefore it is safe to assume that LDT and LD are underlyingly not the same kind of construction. In LDT, the topicalized DP occupies the canonical ma-

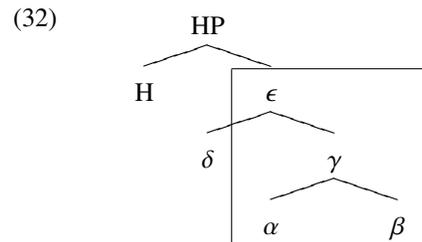
trix [Spec,CP], which also suggests that a straightforward movement analysis should be used to capture the facts. Given that we have already determined, in section two, how specifiers in German become available for probing, this can be achieved.

## 4 Deriving the observations

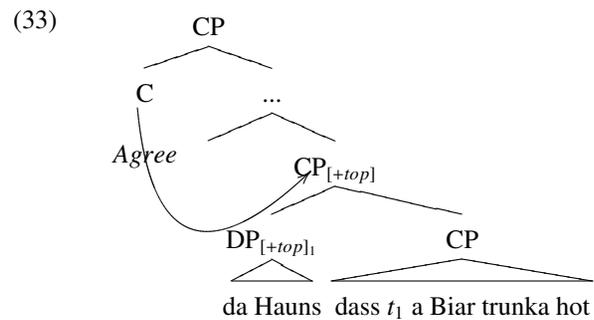
For the analysis of LDT it will be assumed that the actual movement to matrix [Spec,CP] is due to the fact that LDTed DPs must be interpreted in a root-environment.

### 4.1 Pied-Piping

The definitions of IM (9) and projection line (10) immediately allow for pied-piping. In the tree,  $\epsilon$  is the node that is targeted by the probe, if  $\delta$  is invisible due to its specifier position:



In general this means that if a specifier position is non-probable, then it is the next more inclusive node that is targeted, presumably because feature percolation took place. In the case at hand it is the embedded CP that is probed and then moved:



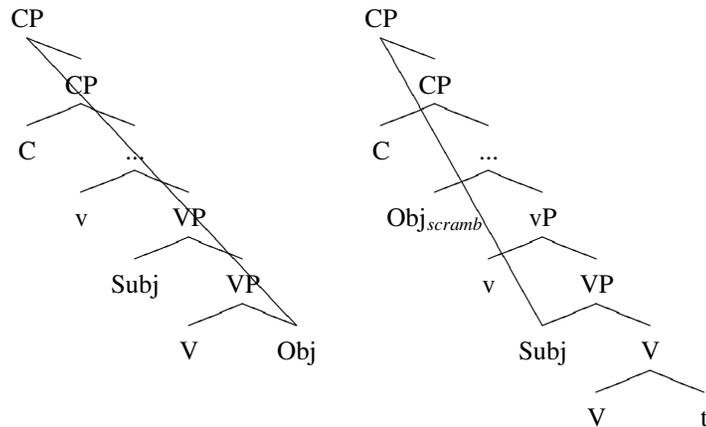
It is important to notice the predictive power of the present theory for pied-piping.

**4.2 Successive cyclic movement**

Extraction of objects in complement position should be available in all languages of the relevant type, which seems to be confirmed empirically. Given the discussion in section 2, however, we make the prediction that subjects should only be extractable in scrambling languages, if the subject is within VP. Although different languages might exploit different mechanisms.

The question is, why the EM-position should matter for extraction. Let us suggest to take the remerge theory of movement seriously (e.g. Bachrach and Katzir (2007), Fox and Pesetsky (2004), Gärtner (2002), Kracht (2001), Starke (2001), and references therein). In particular assume that A'-movement creates multi-dominance structures. If that is the case, the following tree-structures are obtained for the crucial constructions:

(34) *Successive-cyclic IA-movement*    *Successive-cyclic EA-movement*



Under such a view, A'-relations are always established with the  $\theta$ -position of the element to undergo movement. This can derive much of the explanatory power of the ECP explaining subject-object asymmetries by government. However, the present account not only takes the base-position seriously from a merge-based viewpoint. It further allows subjects in scrambling languages to be treated like complements under scrambling of complements.

Moreover, the fact that the EM- or  $\theta$ -position seems to play a role when

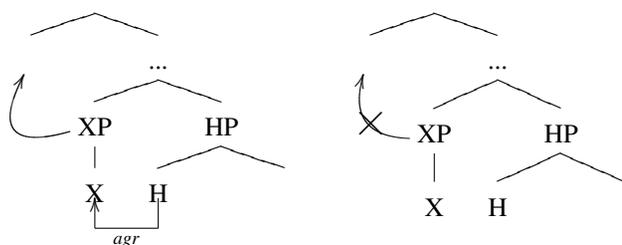
successive-cyclic movement takes place, although the SO has already undergone “movement” to an intermediate [Spec,CP], is readily explained under the present approach. Note that no other principle than (re)merge is needed, which is arguably simpler than the ECP.

Languages such as Bavarian have another possibility to move subjects. In particular, subjects that are not in a complement-like position, because they are in [Spec,vP] are still probable. Suppose that this is due to the fact that this language also shows complementizer agreement. The following constructions show that LDT is only possible, if complementizer agreement takes place (see (Mayr, 2007a) for more discussion, although the analysis has changed considerably).

- (35) a. [Es Kinda]<sub>i</sub> hot da Hauns gfrogt [<sub>t<sub>1</sub></sub> wonn-*ts* t<sub>1</sub> ham  
you children has the John asked when-2pl home  
kummts]  
come  
'John asked when you children will come home.'
- b. \*[Es Kinda]<sub>i</sub> hot da Hauns gfrogt [<sub>t<sub>1</sub></sub> wonn- $\emptyset$  t<sub>1</sub> ham kummts]  
you children has the John asked when- $\emptyset$  home come

In particular assume that subjects are linked to the projection line on which the attracting head is on by complementizer agreement. If they are not in an agreement relation with the complementizer they are frozen:

- (36) *Movement/ Freezing of specifiers:*



Adjuncts confirm this. It is predicted that they should not undergo LDT alone, because they cannot agree with the complementizer. This is borne out (37):

- (37) \*In an schlechten Stil<sub>i</sub> glaubt da Fraunz [<sub>t<sub>1</sub></sub> dass da Willy<sub>i</sub> seine<sub>i</sub>  
in a bad style thinks the Frank that the Willy his  
Biacha gschriebm hot.  
books written has

Only a reading is possible in (37), where the adjunct originates in the matrix clause. However, LDT under pied-piping is possible (38-b):

- (38) a. Da Fraunz glaubt [dass da Willi<sub>i</sub> in an schlechten Stil seine<sub>i</sub>  
the Frank thinks that the Willy in a bad style his  
Biacha gschriebm hot]  
books written has
- b. ?[In an schlechten Stil dass da Willi<sub>i</sub> seine<sub>i</sub> Biacha gschriebm  
in a bad style that the Willy his books written  
hot]<sub>1</sub>, glaubt da Fraunz *t*<sub>1</sub>  
has thinks the Frank  
'Frank thinks that Willy wrote his books in a bad style.'

## 5 Conclusion

A theory of projection line was presented that excludes subjects and adjuncts from the set of probable positions. That subjects in Bavarian are not excluded was related to the scrambling property, which recalculates labels and was tested with *was für* split constructions. It was shown that LDT constructions in Bavarian differ from LD. A'-relations were suggested to be remerge-relations, which derives many of the ECP-properties in a merge-based system. Further complementizer agreement was argued to link subjects to the projection line of attracting heads.

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