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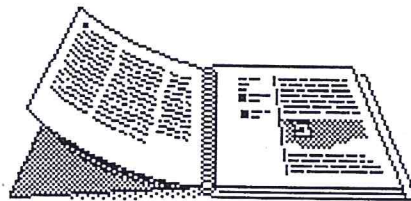
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Issues on Topics

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Contents

Editorial Preface

The present issue grew out of two sources. The main one was the workshop on *Adding and Omitting* (A & O) held during the DGfS Conference organized in Konstanz at the beginning of 1999 by our ZAS project on *Syntax der Fokusbildung*. The purpose of the workshop was to bring together people working on topicalization (addition of expressions, in a sense) and ellipsis (omission, i.e. deletion of linguistic material) and their relations and interaction. Since the workshop was very successful and met with a great deal of interest on the part of both participants and outsiders, we decided to collect and publish the papers that were presented. Towards the end of 1999, a follow-up workshop on *Ellipsis and Information Structure* was organized by Kerstin Schwabe and Susanne Winkler (Tübingen). The papers given at this second meeting were supposed to be an integral part of the publication as well. More and more people got involved, further developing our common understanding of the *topic* phenomenon, so that there was too much material for a single volume. We therefore decided to split the enterprise into two volumes. The ellipsis papers are to be published by 'Benjamins' this year in *Interpreting Omitted Structures*.

The present volume contains papers that bear mainly on issues concerning the topic concept. This concept is of course very broad and diverse. Also, different views are expressed in this volume. Some authors concentrate on the status of topics and non-topics in so-called topic prominent languages (i.e. Chinese), others focus on the syntactic behavior of topical constituents in specific European languages (German, Greek, Romance languages). The last contribution tries to bring together the concept of discourse topic (a non-syntactic notion) and the concept of sentence topic, i.e. that type of topic that all the preceding papers are concerned with.

In *Topic Structures and Minimal Effort*, Yen-hui Audrey Li considers topic-comment constructions against the background of the Minimalist Program. Chinese topic structures can be derived by movement or base-generated. When there are two options for interpreting a structure, the one with less effort, i.e. the one without movement and reconstruction, is adopted. In structures with resultative compound verbs, [V1 (action) + V2 (result)], the object position is not projected if this position is optionally subcategorized and the object does not occur overtly ('minimal projection'). Only if the object is required is topicalization possible.

Liejiong Xu's article *The Topic-Prominence Parameter* aims to recast the properties of topic-prominent languages and their differences from subject-prominent languages as documented in the functionalist literature into the framework of the Principle-and-Parameter approach. It provides a configurational definition of the topic construction called Topic Phrase (TP) with the topic marker as its head. The availability of TP enables topic prominent languages to develop various topic structures with properties such as morphological marking; cross-categorial realization of topics and comments; and multiple application of topicalization. The article elaborates on the notion of topic prominence. A topic prominent language is characterized as one that tends to activate the TP and to make full use of the configuration. Typically, it has a larger number and variety of highly grammaticalized topic markers in the Lexicon and permits a variety of syntactic categories to occur in the specifier position and the complement position of TP.

Based on Mandarin and Shanghainese data, Danqing Liu in *Identical Topics and Topic-Prominent Languages* investigates a special type of topic-comment structures which is characterized by the fact that a topic is fully or partially copied by a corresponding element located in the following part of the clause. Liu points out that topic-copying seems are a better candidate for characterizing topic-prominent languages than the topic types treated by Chafe (1976). In Liu's system, 'identical topics', i.e. both a topic and its copy, can occur between the subject and the verb or in even lower positions.

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Marie-Claude Paris' paper *Where has the new information gone? The Chinese case* argues against the opinion that Chinese is more iconic, as far as the relationship of information structure and syntactic structure of sentences is concerned. She claims that the pairing of affirmative and interrogative sentences might be a better approach to locating where the new information lies in a Chinese utterance.

Following Rizzi (1997), Kleanthes K. Grohmann's article *Prolific Domains and the left Periphery* presents a programmatic sketch of a clause structure in which clauses are split into three prolific domains: the V-, the T- and the C-Domain. Central to his notion of prolific domain is the condition that any given XP finds a unique address in each of these domains. Derivations are constructed over domains. Implementing Uriagereka's (1999) notion of 'multiple spell out', he suggests that the relevant pieces of information are shipped to LF and PF each time a domain is established. This implies a modification of the standard T-model where PF and LF are fed successive-cycllically.

Artemis Alexiadou investigates the syntactic behavior of topical constituents in several null subject languages in her paper *Clausal structure and information structure in Romance and Greek*. She comes to the conclusion that Greek, Italian and Spanish differ considerably in the preverbal as well as in the postverbal domain. The reason lies in the fact that the variations follow from the different clausal structures of these languages that turn out to be not less important than the properties of pro-drop.

Werner Frey's paper *Über die syntaktische Position des Satztopiks im Deutschen* (About the sentence topic's syntactic position in German) argues for a specific topic domain within the German middle-field. German thus is shown to be discourse-configurational with respect to the notion of topic. This leads to a number of interesting insights concerning basic issues such as the potential number of topics, the availability of topics in embedded sentences, and the relation between scrambling and topicality. Furthermore the claim that the 'strong' interpretation of an indefinite implies its status as a topic is refuted. Also it is shown that topic preposing in the middle field has different syntactic and pragmatic properties compared to movement to the prefield. Some theoretical consequences of these differences are discussed.

Michael Grabski's paper *Satztopik und Diskurstopik in Elaborationskontexten* (Sentence topic and discourse topic in elaboration contexts) starts with a semantic differentiation between the notions of 'sentence topic' and 'discourse topic'. Sentence topic is conceived of as part of a semantic predication in the sense of Kim's (1998) work, whereas discourse topic is defined, as in Asher's (1993) Segmented Discourse Representation Theory, as a discourse constituent that comprises the content of the larger discourse. The main body of his contribution serves to investigate the connection between the two types of topic. To restrict the context of investigation, a specific relation between discourse constituents, Elaboration, is chosen. If Elaboration holds between two discourse constituents, one of them can be identified as the explicit discourse topic with respect to the other one. Sentence topic and comment, within elaborating sentences, seem to interact with the discourse topic in a specific way: whereas comment information seems to be used to infer a 'dimension' for extending the discourse topic, the role of sentence topics is to mark 'indices' for predication along that dimension. The roles of sentence topic and comment are modelled by means of channel theoretic devices.

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Topic Structures and Minimal Effort

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The complexity of human languages has always inspired research for some human faculty that makes language learning possible. The system that generates the complexity of human languages, ideally, is simple and effective. Recent developments of the generative grammatical theory explore deeper into the issue of simplicity or economy. The Minimalist Program developed in Chomsky (1991, 1993, 1995) tries to provide contents to such notions. What does it mean to be more economic or least effort? An important instantiation of such notions is the proposal that movement is the last resort assuming that movement is more costly than non-movement.[1] Processes occur only because they are necessary. The definition of necessity generally is cast in morphological terms. Moreover, the notion of "economy" or "least effort" is deterministic of the appropriate derivations for sentences: a shorter derivation is better than a longer one. In this work, we show that the notion of "least effort," – do minimally if possible – is manifested not only in derivations but also in other aspects of the grammar. We take Chinese[2] as an example and show that this language exhibits the properties manifesting some "least effort" guidelines in the area of movement and reconstruction, and in the projection of syntactic positions: when there is a choice, non-application of movement/reconstruction and non-projection of a position are adopted.[3] These phenomena essentially are attested in topic structures. The question arises as to why topic structures exhibit such minimal effort effects. We suggest that this is due to the fact that topic structures can be derived by movement or base-generation. When there are morpho-syntactic clues that reconstruction is necessary, the structure is a movement structure. Otherwise, the less costly non-movement structure is assumed. Moreover, because of the possibility of assuming a topic NP[4] to be base-generated, bearing a predication (or aboutness) relation with the comment clause, the argument position which otherwise would be related to the topic (conveniently termed the trace position) is not projected when there is a choice of projecting or not projecting it.

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[1] An implicit assumption is that movement is more costly than non-movement, cf. the Minimalist Program presented in Chomsky 1991, 1993, 1995.

[2] In this work, we concentrate on Mandarin Chinese.

[3] See note 1. This claim basically concerns topicalization in Chinese. It contrasts with the claim by Aoun and Benmamoun (1998), Aoun, Choueiri and Hornstein (1999) that movement is a primary strategy in Lebanese Arabic (LA). The LA data have to do with wh-movement. It is possible to surmise that constructions differ in taking movement or non-movement as the primary strategy. Wh-movement concerns operator movement. Topicalization, if we follow Ning (1993)'s analysis, concerns XP fronting, rather than operator movement. Note that they also differ in reconstruction possibilities; see section 1.2.

[4] This work does not distinguish NPs and DPs (see Abney 1987 for the proposal on DP structures and Li 1998, 1999 for arguments for the existence of DPs in Chinese).

The working of minimal effort in the area of movement and reconstruction as manifested in Chinese topic-structures is discussed in section 1. Section 2 discusses the relevance of minimality in the projection of syntactic structures, as illustrated by the behavior of the some structures containing ambiguous verbs, especially with respect to topicalization possibilities.

1. Minimal movement/reconstruction

Chinese does not have many overt movement structures. A likely candidate that has been the subject of substantial discussions is the topic structures. There have been long debates on whether topic structures are derived by movement (see, for instance, Huang 1982, 1987, Li 1990, Qu 1994, Shi 1992, Shyu 1995, Xu 1986, Xu and Langendoen 1985). Even though it is possible that certain topic structures might be base-generated (but see Shi 1992 who claims that all topic structures are derived by movement), there is some clearer evidence that topic structures should be able to be derived by movement.[5] On the other hand, there is also conflicting evidence that movement cannot be the proper derivation because of the failure of reconstruction. To reconcile the conflicting properties, we suggest that the grammar should have the notion of minimal effort when reconstruction applies – reconstruct only when necessary. Taking a step further and approaching the issue from a broader perspective, we suggest that it is the ambiguity of a topic structure – movement or base-generation – that allows minimal reconstruction.

1.1. Topic structures – movement as an option

Let us begin with the arguments that topic structures need to have a movement option. Essentially, the arguments against a movement analysis of topic structures rely on the existence of an empty pronoun in Chinese. If an empty pronoun is available and can be interpreted, in the same way as an overt pronoun, as coreferential with or bound by the topic (such as (1a-b)), why is there a need to adopt a movement structure for topic constructions?

(1)   a. Zhangsan$_i$, [[e$_i$ kan de] shu] henduo.
            Zhangsan   read De book many
            'Zhangsan, the books he has read are many.'

    b. Zhangsan$_i$, [[ta$_i$ kan de] shu] henduo.
            Zhangsan   he read De book many
            'Zhangsan, the books he has read are many.'

If (1b) is possible, there needs to be an option that a topic is base-generated and a pronoun in the comment clause is coindexed with the topic. If this option is available and if an empty pronoun behaves like an overt pronoun, why is there a need to adopt a movement approach to topic structures?

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[5]   The disagreement on deriving topic structures by movement often centers on the possible interpretations of empty pronouns and how empty pronouns should be identified. See, for instance, the works by Xu and Huang as cited in the text.

The problem of incorporating (1a) to (1b) is that there are more restrictions on when and where an empty pronoun can occur. Our arguments for the need of a movement derivation for topic structures therefore come from those cases illustrating when and where an empty pronoun can occur. First consider the evidence from the distribution of prepositional phrases (PPs). Saito (1985) observes that a pro cannot be a PP and therefore a displaced PP must be the result of movement rather than coindexing with a base-generated pro. Chinese topic structures allow a PP to be a topic. If a PP cannot be base-generated because of the lack of a PP pro, the topic PP must be the result of topicalization.[6]

(2)   a. Dui Zhangsan, wo zhidao ta t bu zenme guanxin.
        to Zhangsan I know he not how care
        'To Zhangsan, I know he does not quite care for.'

      b. Cong zhejia yinhang, wo zhidao women keyi t jiedao henduo qian.
        from this bank I know we can borrow much money
        'From this bank, I know we can borrow a lot of money.'

      c. Gen zhe zhong laoshi, wo zhidao wo t yiding xue-bu-hao
        with this kind teacher I know I certainly study-not-well
        'With this kind of teacher, I know I certainly will not learn well.'

The second piece of evidence for the need of a movement approach to topic structures comes from the distribution of idiomatic expressions with the form [V + O(bject)]. The O of a V+O idiom can be a topic:[7]

(3)   a. wanxiao/mo/dao, ta kai/you/kai de hao ma?
        joke/-mor/knife he open/hu-/open DE well Q
        'Does he joke/humor/operate well?'

      b. mo, ta shi hui you, keshi changchang you de buhao
        -mor he be can hu- but often hu-DE not good
        'He can humor but not quite well.'

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[6] Huang (1982, 1989)'s generalized control rule governing the distribution and interpretation of pro has been challenged (for instance, Xu 1986, Xu and Langendoen 1985. The adoption of such a control rule, nevertheless, will disallow (2a-c) to contain a pro. Huang's generalized control rule requires a pro to be identified with the closest c-commanding NP (which accounts for (1a)). The empty category associated with the topic PP in (2a-c) cannot be a pro because identification with the closest c-commanding NP (the subject of the clause where the empty category occurs) will create a Binding Principle B violation.

[7] Idiomatic expressions sometimes are hard to be distinguished from figurative speech (see Goodall 1987, 1989, Huang 1990, Sybesma 1999). The example of *youmo*, a transliteration of a bisyllabic 'humor' into a bisyllabic word and being reanalyzed as a V+O compound, discussed in Huang (1984), may be taken as a clearer example of idioms. Many other idiomatic V+O expressions generally assumed as such in the literature allow topicalization as well.

   (i)   bian   ta yizhi da/xiao-bu-chulai, (zenme ban?)
          convenience he still big/small-not- out how do
          'He still cannot make bowel movement/urinate (what to do?)'

It is widely accepted that the displacement of an idiom chunk is evidence for movement because the parts of an idiom need to be a unit *at some level of the derivation.*

If we claim that the cases in (2-3) are derived by movement, they should behave like movement structures. For instance, they should obey the locality constraint on movement. This is true. The topic in (2-3) cannot be coindexed with an empty category inside an island. (4a) shows that long distance movement is possible; however, the movement cannot cross an island boundary (4b-c).

(4)　　a.　mo$_i$, wo zhidao ta shi hui you e$_i$, keshi changchang you e$_i$ de buhao
　　　　　　-mor I know　he be can hu- but　often　　　hu　　DE not good
　　　　　　'-mor (humor), I know that he can hu- (make) but often cannot hu-(make) well.'

　　　　b.　??mo$_i$, Zhangsan renshi nage you guo e$_i$, keshi you e$_i$ de buhao de ren
　　　　　　-mor Zhangsan know that　hu- Asp but　hu-DE not good
　　　　　　'-mor(humor), Zhangsan knows the person who has hu-(made) but did not make well.'
　　　　　　(Humor, Zhangsan knows the person who can humor but not quite well.)

　　　　c.　??mo$_i$, wo zhidao Zhangsan yinwei hui you e$_i$, hen you renyuan
　　　　　　-mor, I know　Zhangsan because can hu- very have popularity
　　　　　　'-mor, I know Zhangsan is popular because he can hu-'

Similarly, the displaced PPs in (3) cannot come from within an island:[8]

(5)a.　*[Dui Zhangsan]$_i$, wo renshi [[e$_i$　hen guanxin de] ren].
　　　　to Zhangsan,　I　know　very care　DE person

　　　b.　*[Cong zhejia yinhang]$_i$, wo renshi [[keyi e$_i$ jie　　henduo qian de] ren]
　　　　　from this　bank　　I　know　can　borrow　much　money DE person

　　　c.　*[Gen zhe zhong laoshi]$_i$, wo renshi [[e$_i$ yiding xue-bu-hao de] ren]
　　　　　with this kind　teacher　I know　　certainly study-not-well DE person

The relevance of island conditions cannot be accommodated by a base-generation approach.

In addition to the locality conditions, movement structures show reconstruction possibilities. Chinese topic structures seem to allow reconstruction, as illustrated by the following facts concerning the binding of anaphors.

A displaced anaphor can be bound by an antecedent that does not seem to c-command it:

(6)　　a.　Zhangsan$_i$ hen zhaogu (ta)ziji$_i$ (de pengyou).
　　　　　　Zhangsan very care　him self DE friend
　　　　　　'Zhangsan takes good care of (him)self/his own friends.'

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[8]　An overt pronoun inside an island coindexed with a topic NP, not a topic PP, is acceptable. For instance:

(i)　　Zhangsan$_i$, wo renshi [[dui ta$_i$ hen guanxin de] ren].
　　　　Zhangsan, I　know　to him very care　DE person
　　　　'Zhangsan, I know the people who care about him.'

b. (ta)ziji$_i$ (de pengyou), Zhangsan$_i$ hen zhaogu.
   him self DE friend   Zhangsan very care
   '(him)self/his own friends, Zhangsan takes good care of.'

c. Zhangsan/ Shei/ Nage ren/ Meiren / Meigeren$_i$ dou
   Zhangsan who which man noone everyone all
   hen xihuan ziji$_i$ hua de hua.
   very like self draw DE picture
   'Zhangsan/Who/Which person/Noone/Everyone
   likes the picture that self drew.'

d. ziji$_i$ hua de hua,
   self draw DE picture
   Zhangsan/ Shei/ Nage ren/ Meiren / Meigeren$_i$ dou hen xihuan[9]
   Zhangsan who which man noone everyone all very like
   'The picture that self drew, Zhangsan/Who/Which person/Noone/Everyone
   likes.'

The anaphor binding facts here support the analysis according to which the topic is moved from a position c-commanded by the subject. After reconstruction (i.e., placing the moved topic back to the original position), the topic can be c-commanded and bound by the subject. The contrast between the pairs of the sentences in (7) further shows that reconstruction effects exist, if we take the existence of overt pronouns to be indications of instances of base-generated non-movement structures:[10]

(7)   a. (Ta)ziji$_i$ de baba$_j$, Zhangsan$_i$ hui zhaogu t$_j$
      himself DE father Zhangsan will care
      '(Him)self's father, Zhangsan will take care.'

      b. ??(Ta)ziji$_i$ de baba$_j$, Zhangsan$_i$ hui zhaogu ta$_j$.
      himself DE father Zhangsan will care him
      '(Him)self's father, Zhangsan will take care of him.'

In brief, the following facts argue for the need of a movement process to derive topic structures.

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[9]   Some speakers do not quite like the preposed anaphor to be *taziji*, especially when the binder is a QP or a *wh*-operator.

[10] The contrast between (7a) and (7b) shows that reconstruction in the sense of placing elements back, not just coindexing, is needed for the topic anaphor to be bound by its antecedent. This view of reconstruction also fares better in our discussion of minimal effort, as it is less clear how other formulations of reconstruction, such as the chain theory (see Barss 1986, chains consisting of the moved element and its trace(s)) or copy and merge theory (Chomsky 1995), can be phrased in terms of minimal effort. See the discussions in section 1.2.

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(8) i. A PP, which cannot be a pro, can be topicalized
    ii. Part of an idiomatic expression can be topicalized.
    iii. The displaced PP or idiom chunk can be separated from its original position across clauses (long distance dependency relation) but cannot be separated by an island boundary (island conditions)
    iv. Reconstruction is possible as illustrated by the binding of anaphors.

The last point is based on the type of examples given so far, which contain anaphors in the topic position at the beginning of a sentence. These examples show that reconstruction is available, which argues for the existence of movement. However, when more data are examined, it is no longer clear that reconstruction is always possible in topic structures. The lack of reconstruction in topic structures in fact has been noted in the experimental studies by Chien et al (1993). In their experimental study of reflexive binding, they find that adults, as well as children, "rarely allowed *taziji* [and *ziji*] to be backward chain-bound by the embedded subject NP that followed" (p. 250) the reflexive. Examples they used are (9a-b):[11]

(9)   a. Milaoshu mengjian, ziji-de qiqiu, Daxingxing zhuazhe. (p.241)
          Micky Mouse dream, himself's balloon, Big Gorilla grasp
          'Micky Mouse is dreaming that, himself's balloon, Big Gorilla is grasping'

      b. Milaoshu mengjian, taziji-de erduo, Daxingxing mozhe. (p.247)
          Micky Mouse dream, himself's ear, Big Gorilla touch
          'Micky Mouse is dreaming that, himself's ear, Big Gorilla is touching'

The contrast between (6-7) on the one hand and (9a-b) on the other is surprising. All of these sentences are illustrations of anaphor binding via reconstruction; yet, the former is much better than the latter. (9a-b) can be further contrasted with (9c-d) where the "backward chain-binding" seems to be more likely, as the sentences are fully acceptable:

(9)   c. ziji-de qiqiu, Daxingxing zhuazhe.
          himself's balloon, Big Gorilla grasp
          'himself's balloon, Big Gorilla is grasping'

      d. taziji-de erduo, Daxingxing mozhe.
          himself's ear, Big Gorilla touch
          'himself's ear, Big Gorilla is touching'

(9a-b) are not isolated phenomena. There are other facts that do not show reconstruction effects. For instance, if the anaphor is of the *same/different* type, we do not get reconstruction interpretations:

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[11] Picture recognition/yes-no tests, rather than act-out tests, were used, which supposedly would be better tests to find out possible interpretations, not just preferences. The results of the tests do not distinguish *ziji* from *taziji* with respect to the possibility of reconstruction. Cf. Huang and Tang (1988), Katada (1991) that distinguish *taziji* (and *ziji* contained in an NP for Katada) from the bare *ziji* with respect to reconstruction .

(10) a. Zhangsan he Lisi hen xiang yao xiangtong/butong de dongxi
          Zhangsan and Lisi very want   same/different De things
          'Zhangsan and Lisi want same/different things.'

      b. xiangtong/butong de dongxi, Zhangsan he Lisi hen xiang yao.
          same/different De things, Zhangsan and Lisi very want
          'Same/Different things, Zhangsan and Lisi want'

      c. Mei dui Zhongguo fufu dou hui jieshao xiangtong/butong de xuesheng.
          every pair Chinese couple all will introduce same/different De student
          'Every Chinese couple will introduce same/different students'

      d. xiangtong/butong de xuesheng, mei dui Zhongguo fufu dou hui jieshao.
          same/different De student every pair Chinese couple all will introduce
          'Same/Different students, every Chinese couple will introduce.'

Each of the two pairs of sentences is not equivalent to the other in interpretation: (10a) and (10c) are ambiguous: 'same/different' can covary with Zhangsan and Lisi/the couple, or 'same/different' simply describes the things/students and does not covary with the subject. In the topic structures (10b) and (10d), the covariant reading is lost. In other words, the topic 'same/different' expressions are not reconstructed for interpretation.

Similarly, a topicalized *wh*-word does not have the scope interpretation of the non-topicalized counterpart. Thus, when a verb like *xiang-zhidao* 'want to know, wonder' is sub-categorized for an interrogative, the embedded *wh*-word cannot be topicalized (11b), unless the embedded clause contains another question word, interpreted as an indirect question, and the topic *wh* is interpreted as having scope over the entire sentence (11c).

(11) a. ta xiang-zhidao shei yao lai.
          he want-know who want come
          'He wonders who wants to come.'

      b. *shei, ta xiang-zhidao yao lai.
          who he want-know who want come
          'Who, he wonders wants to come.'

      c. shei, ta xiang-zhidao yao-bu-yao lai.
          who he want-know want-not-want come
          'Who, he wonders whether (he) wants to come.'

Other quantifier interaction facts point to the same generalization: the topic does not have the scope interpretation of the non-topicalized counterpart, i.e., reconstruction does not take place. The contrast in (12a-b) are examples of the scope interaction between quantifier phrases and *wh*-phrases and (13a-b), examples of the scope interaction between quantifier phrases.

(12) a. Ta gei meige haizi zuo   le   shenme dongxi?
       he for every child make Asp what   thing   —ambiguous
       'What did he make for every child?'
       (answered by 'he made a horse for Billy, a dragon for Jill...' or 'he made toys for
       every child')

   b. Shenme dongxi, ta gei meige haizi zuo   le t ?
      what   thing   he for every child make ASP   —unambiguous
      'What is it that he made for every child?'
      (answered by 'toys, he made for every child.')

The answer for sentence (12a) can be different things for different children or one identical
item for every child; (12b) can only be one identical thing made for all the children.
    Sentence (13b) does not have the reading that 6 problems were solved as (13a) does:[12]

(13) a. ruguo liangge ren jiejue le   sange wenti...
       if   two   men solve Asp three problems
       'if two men solved three problems....'

   b. ruguo sange wenti, liangge ren jiejue le....
      if   three problems, two men solved

The facts presented so far seem to conflict with each other: the facts summarized in (8) pro-
vide evidence for reconstruction but those in (9-13) argue against it. Why is there such a con-
flict? We show below that this problem can be solved if we have a notion of "minimal
reconstruction" – reconstruct only when necessary.

1.2. Reconstruction

Let us begin with the cases involving topicalized anaphors, which show the application of
reconstruction in some cases but not in others. Comparing (6-7) and (9c-d), which allow re-
construction, and (9a-b), which do not allow reconstruction, we see that the important differ-
ence between them is that the displaced anaphor does not have a c-commanding antecedent
in the former set but does have one in the latter set. In other words, in the cases of (6-7) and
(9c-d), the anaphor would not have a proper binder if it stayed in the topic position, accord-
ing to Binding Principle A which requires an anaphor to be c-commanded (bound) by its
antecedent within a certain domain (Chomsky 1981). By contrast, if the anaphor is recon-
structed, the requirement that an anaphor must have a c-commanding binder would be satis-
fied and the sentence would be grammatical. The following sentences show the same point:
even though (14b) is pragmatically less preferred than (14c), (14b) is better than (14c):

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[12] Conditional clauses are used here because a matrix clause generally requires a definite or specific subject
NP and the constraint does not exist in conditional clauses (see Lee 1986, but also see Aoun and Li 1989).

(14) a. shei/nage ren/meiren/meigeren $_i$ dou   hen xihuan Wang laoshi gei ziji $_i$ de chengji
          who/which man/noone/everyone all   very like   Wang teacher give self's grade
          'Who/Which person/ Nobody/Everyone likes the grade that Teacher Wang
          gave to self.'

      b. Wang laoshi $_i$ gei ziji $_i$ de chengji, shei/nage ren/meiren/meigeren dou   hen xihuan t
          Wang teacher give self's grade   who/which man/noone/everyone all very like
          'The grade that Teacher Wang gave to self, who/which man/no one/everyone likes'

      c. ??Wang laoshi gei ziji $_i$ de chengji, shei/nage ren/meiren/meigeren $_i$ dou hen xihuan t
          Wang teacher give self's grade   who/which man/noone/everyone all very like
          'The grade that Teacher Wang gave to self, who/which man/no one/everyone likes'

The displaced anaphor has a c-commanding binder within the displaced phrase; it therefore can satisfy Binding Principle A without reconstruction and no reconstruction takes place. The interpretation possibilities in (15) further show the lack of reconstruction of the displaced phrase:

(15)   Zhangsan $_i$ yiwei, laoshi $_j$ gei ziji $_{i/j/*k}$ de chengji, Lisi $_k$ kandao le t .
          Zhangsan thought teacher give self DE grade Lisi   see   ASP
          'Zhangsan thought that, the grade that the teacher gave to self, Lisi saw.'

On the other hand, in the cases like (9b), reconstruction becomes more likely if the matrix subject is not a possible antecedent for the anaphor:

(16) a. gushi litou shuo, (ta)ziji $_i$ -de erduo, Daxingxing $_i$ mozhe.
          story inside say (him)self's ear, Big Gorilla touch
          'The story says that, (him)self's ear, Big Gorilla is touching'

The anaphor 'himself' must refer to an animate antecedent. 'Story' is inanimate and is not a possible antecedent for the anaphor, which therefore must undergo reconstruction to be interpreted. In (16b), the first person subject cannot be an antecedent for the anaphor, which must also be reconstructed to be interpreted:

(16) b. wo mengjian, taziji $_i$ de erduo, Daxingxing $_i$ mozhe.
          I dream   himself's ear, Big Gorilla touch
          'I dreamed that himself's ear, Big Gorilla is touching'

In (16c), the plural matrix subject cannot be a possible antecedent for the anaphor, which is to be interpreted as bound by the embedded subject:

(16) c. tamen mengjian, taziji $_i$ de erduo, Daxingxing $_i$ mozhe.
          they   dream   himself's ear, Big Gorilla touch
          'They dreamed that himself's ear, Big Gorilla is touching'

The discussion above shows that, even though the result of the experimental study by Chien et al. suggests the lack of reconstruction in the cases they studied, unexpected if topic structures can be derived by movement, this puzzling result invites us to examine further what motivates reconstruction and when it occurs. What we propose here is that reconstruction, in principle, is possible in the cases discussed by Chien et al. The experimental results are what they reported because of the type of examples used in the experiments. In these instances, reconstruction is not necessary because there is a possible antecedent to bind the anaphor at its landing site (sentences (9a-b)). When reconstruction is not necessary, it does not take place, a phenomenon predicted by the notion of last resort or minimal effort (see note (9)).

This conception of reconstruction also accounts for why the potentially dependent expressions such as 'same/different' in the topic position do not have the reconstructed interpretation (10): these expressions can be interpreted without an antecedent. The sameness or difference can be between the elements expressed by the head noun: the same or different things/students. Morpho-syntactically, they do not require a binder for interpretation. This also is the case with the lack of reconstructed interpretations for scope-bearing elements in the topic position such as quantifier phrases. These elements are not required to have a c-commanding antecedent morpho-syntactically. Therefore, they are not reconstructed. A *wh*-word in the topic position can also be interpreted in the topic position and make the sentence a direct question. There is no need for it to be reconstructed to obtain an embedded indirect question interpretation.

If this line of pursuit is on the right track, the prediction should be that a pronoun would not need to reconstruct because it does not require a binder. A pronoun can be interpreted without a c-commanding binder. This prediction seems to be borne out: preposing the phrase containing the pronoun makes binding less likely than (17a-b) are significantly better than (17c-f):[13]

(17) a. $Shei_i$ xihuan laoshi gei ta_i de chengji?
 who like   teacher give him DE grade
 'Who likes the grade that the teacher gave him?'

 b. $Meiren_i$ xihuan laoshi gei ta_i de chengji.
 nobody like   teacher give him DE grade
 'Nobody likes the grade that the teacher gave to him.'

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[13] Speakers vary with respect to the possibility of a pronoun bound by a QP (Aoun and Li 1990). Most speakers, however, do find a contrast between a straightforward c-commanding binding of a pronoun and a backward (reconstructed) binding of a pronoun, even though they may differ in the acceptability of the backward binding. Those who dislike backward binding in general also dislike the sentence (i), even though (ii) is still good for them:

 (i) $taziji_i$ de chengji, meiren/$shei_i$ xihuan
   himself DE grade noone/who like

 (ii) $ziji_i$ de chengji, meiren/$shei_i$ xihuan
   himself DE grade noone/who like

 It is possible that *taziji* here is analyzed as a pronoun *ta* plus an intensifier *ziji*.

c. ??laoshi gei ta$_i$ de chengji, shei$_i$ xihuan.[14]
   teacher give him DE grade who like
   'The grade the the tacher gave to him, who likes?'

d. ??laoshi gei ta$_i$ de chengji, meiren $_i$ xihuan.
   teacher give him DE grade nobody like
   'The grade the the tacher gave to him, nobody likes.'

e. Zhangsan$_j$ yiwei, laoshi gei ta$_{j/*i}$ de chengji, shei$_i$ xihuan?
   Zhangsan think   teacher give him DE grade who like
   'Zhangsan thought, the grade that the teacher gave to him, who liked?'

f. Zhangsan$_j$ yiwei, laoshi gei ta$_{j/*i}$ de chengji, meiren$_i$ xihuan.
   Zhangsan think teacher give him DE grade nobody like
   'Zhangsan thought, the grade that the teacher gave to him, nobody liked.'

In order for the quantificational expressions 'who' and 'nobody' to bind the pronoun, the pronoun must be reconstructed to the c-command domain of these expressions. However, there is no inherent requirement for a pronoun to be bound. Because it does not need to be bound, reconstruction is not necessary and does not occur.

Briefly summing up, we show that the lack of reconstruction effects reported by Chien et al need not be surprising if we take reconstruction to be a process that takes place only when it is necessary. In the case of anaphors, if there is an antecedent for the anaphor at its landing site, the anaphor does not undergo reconstruction because it is not required to. In the case of pronouns, 'same/different' expressions, scope-bearing elements (including quantifier phrases and *wh*-phrases), the reconstructed interpretation is significantly harder because they do not require a c-commanding antecedent morpho-syntactically. There is no requirement for reconstruction to take place.

To conclude the discussion in this section, we would like to point out that preposing of phrases containing names in Chinese shows the lack of reconstruction: the relevant facts, such as the acceptability of (18a-b), indicate reconstruction does not take place (see Huang 1993, Qu, 1994):[15]

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[14] The pronoun, even though not required to be bound, still needs a reference from the contexts (linguistic or non-linguistic). In the cases of (17c-d), the backward binding of the pronoun by the QP is not totally impossible, since there is no clear interpretation for the pronoun elsewhere in the linguistic context. In contrast, the backward binding of the pronoun by the QP in (17e-f) is less likely, because Zhangsan can provide an interpretation for the pronoun.

[15] The unacceptability of the following sentence cannot be due to reconstruction:

(i)   ??[Zhangsan $_i$ de nu pengyou]$_j$, ta $_i$ hui jieshao e $_j$
       Zhangsan DE girl friend, he will introduce
       'Zhangsan's girl friend, he will introduce.'

Replacing the empty category *e* with an overt pronoun (a base-generation structure, see the discussions regarding (7a-b)) does not improve the sentence:

(ii)   ??[Zhangsan $_i$ de nu pengyou]$_j$, ta $_i$ hui jieshao ta $_j$
       Zhangsan DE girl friend, he will introduce her
       'Zhangsan's girl friend, he will introduce her.'

(18) a. Wo gei Zhangsan_i jieshao de nu pengyou, ta_i hui dailai.
I to Zhangsan introduce DE girl friend he will bring
'The girl friend that I introduced to Zhangsan, he will bring along.'

b. ?Zhangsan_i de nu pengyou, wo xiwang Lisi hui jiao ta_i dailai.
Zhangsan DE girl friend I hope Lisi will ask him bring
'Zhangsan's girl friend, I hope Lisi will ask him to bring along.'

We have shown that reconstruction in topic structures either does not occur or must occur, depending on the morphological properties of the displaced elements. This phenomenon can be understood as minimal reconstruction: reconstruction is taken as placing elements back and the process does not occur unless to satisfy the morph-syntactic constraint on the displaced element (greed, cf. Chomsky 1993, 1995). Some notion of economy or minimal effort governs the reconstruction possibilities. I would like to note here that it is not clear that such a notion of minimal effort must be thought of as a condition on the computation of grammar. It might as well be a condition on processing. The data we have does not argue for one way or the other. To speculate further, note that, if the facts discussed in the literature concerning the reconstruction of English *wh*-phrases having undergone *wh*-movement are correct (see some representative works, Chomsky 1981, 1995 for instance), they show that reconstruction of a *wh*-phrase in the Spec of Comp is always possible, even though there are no morpho-syntactic requirements forcing the reconstruction (see Huang 1993, Heycock 1995, Takano 1995 for some complications of the facts). This might further point to the "processing" aspect of minimal effort in reconstruction: as mentioned, Chinese topic structures can be derived by movement or base-generated but the English *wh*-structures can only be derived by movement. It seems that when there are two options to interpret a structure, the one with less effort, i.e., the one without movement and reconstruction, is adopted. A more appropriate description of the facts we have discussed so far therefore might be the adoption of a simpler structure.

This seems to be also a driving force for the next issue to be discussed: when two syntactic structures are available for a sentence, the simpler one is chosen.

2. Minimal projections

There are many verbs in Chinese, essentially, resultative compound verbs [V1 (action) + V2 (result)], that allow both inchoative and causative usage, as illustrated by (19-21) (cf. Li 1993, Cheng and Huang 1994)

The unacceptability of these sentences, in contrast to those in (18a-b) in the text might be due to some condition on the depth of embedding, as discussed in Reinhart (1981), Huang (1993, p. 106, note 4). The difference between adjunct and complement might not play a role here (see Johnson 1987, Lebeaux 1988, if indeed there is complement/adjunct distinction in Chinese pre-nominal *de* expressions), as the following sentence is still acceptable, like (18a-b), even though it is a typical case of complement. Also see Heycock (1995) for the distinction between arguments and predicates.

(iii) wo yao gei Zhangsan_i jieshao nu pengyou zhejian shi, ta_i yizhi bu gan gen bieren jiang e.
I want to Zhangsan introduce girl friend this matter he still not dare with others talk
'The matter that I want to introduce Zhangsan a girl friend, he still dare not talk to others.'

(19) a. *Lisi mang-bing-le.*
   Lisi busy-sick-Asp
   'Lisi got sick from being too busy.'

   b. Zhangsan mang-bing-le Lisi.
   Zhangsan busy-sick-Asp Lisi
   'Zhangsan got Lisi to be sick from being too busy.'

(20) a. Lisi qi-si-le.
   Lisi angry-death-Asp
   'Lisi is angry to death (very angry).'

   b. zhejian shi qi-si-le Lisi.
   this matter anger-death-Asp Lisi
   'This matter angered Lisi to death (extremely).'

(21) a. Lisi he-zui-le.
   Lisi drink-drunk-Asp
   'Lisi got drunk from drinking.'

   b. zhe ping jiu he-zui-le Lisi.
   this bottle wine drink-drunk-Asp Lisi
   'This bottle of wine made Lisi drunk.'

What is interesting is that, even though there is an object following the causative expression, such an object cannot be topicalized: (22a-c).

(22) a. *Lisi, Zhangsan mang-bing-le.
   Lisi Zhangsan busy-sick-ASP
   'Lisi, Zhangsan got sick from being too busy.'

   b. *Lisi, zhejian shi qi-si-le.
   Lisi, this matter anger-death-Asp
   'Lisi, this matter angered to death (extremely).'

   c. *Lisi, zhe ping jiu he-zui-le.
   Lisi, this bottle wine drink-drunk-Asp
   'Lisi, this bottle of wine made drunk.'

Moreover, according to Cheng and Huang (1994), even though (23a) has both a regular transitive verb and a causative verb interpretation, the topicalized sentence loses the causative interpretation: [16]

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[16] The only interpretation for (23b) is that the child chased Lisi and the child got tired from the chasing. This is even clearer when the comment clause is embedded:

(23) a. xiaohai ba Lisi zhui-lei-le.
        child   ba Lisi chase-tired-ASP
        'The child chased Lisi tired.'
        'The child caused Lisi to chase him tired.'

      b. Lisi, xiaohai zhui-lei-le.
        Lisi child   chase-tired-ASP
        '*Lisi, the child chased him tired.*'

Cheng and Huang (1994) observed that the unacceptability of sentences of the type of sentences in (22) and the reduced possibilities of interpretations in (23b) are due to a minimal parsing principle that favors processing the nuclear clause in its basic or minimally derived form. They suggest that the basic form of the nuclear clause is ergative in (19-22). The causative use of the verb is a derived structure (a causer (or a CAUSE verb) is added to the basic form) . When the basic form of the nuclear clause is ergative, no null object is available to be coindexed with the topic (22a-c). The lack of ambiguity in (23b) follows in the same way.

The notion of "minimal parsing" plays a major role in the interpretation of these sentences. Here we would like to elaborate on the notion of minimality and at the same time point out that it is not sufficient to simply make the distinction between derived and non-derived structures. It is necessary to make a distinction between the presence or absence of an object NP after the compound verb.

First, we need to clarify the interpretation of the relevant sentences (see note (16)). Li (1993) observes that a sentence like (24) that contains a compound verb [V1(activity)+V2(result)], 'chase-tired', can have three interpretations:

(24)   Zhangsan zhui-lei-le Lisi.
        Zhangsan chase-tired-Asp Lisi
        a. 'Zhangsan chased Lisi and Zhangsan got tired.'
        b. 'Zhangsan chased Lisi and Lisi got tired.'
        c. 'Zhangsan made Lisi tired from chasing him.'

Now, compare (24) with (25). Topicalization of the object NP not only loses the derived causative interpretation (24c) but also the second reading (24b) according to which the topicalized NP is the subject of the result verb 'tired':

(i)   Lisi, wo zhidao xiaohai yijing zhui-lei-le.
        Lisi I   know child   already chase-tired-ASP
        'Lisi, I know that the child already got tired from chasing (him).'

If Lisi is to get tired, the BA or passive construction will be used:

(ii)   Lisi, wo zhidao xiaohai yijing ba ta zhui-lei-le.
        Lisi I   know child   already BA him chase-tired-ASP
        'Lisi, I know that the children made him tired from the chasing.'

(iii)   Lisi, wo zhidao yijing bei xiaohai zhui-lei-le.
        Lisi I   know already by child chase-tired-ASP
        'Lisi, I know (he) is chased-tired by the children.'

(25)　　Lisi, wo zhidao/yiwei Zhangsan zhui-lei-le
　　　　Lisi I　know/think　Zhangsan chase-tired-ASP
　　　　'Lisi, I know/think Zhangsan has chased and got tired.'

On the other hand, there are sentences that also contain resultative compound verbs and that allow the topicalized NP to be the subject of the result verb:

(26)　　na ping iu, wo zhidao/yiwei Zhangsan yijing he-guang le.
　　　　that bottle wine, I　know/think　Zhangsan already drink-empty-ASP
　　　　'That bottle of wine, I know/think Zhangsan has already consumed (and emptied) it.'

Note that the main difference between (24-25) and (26) is that the compound verb is three-way ambiguous when no topicalization takes place but *he-guang* in (26) can only have the interpretation that something (the bottle of wine) becomes empty because of an agent's drinking. Verbs of the former type contain a result verb (V2 in the compound verb) that can be predicated of the subject NP or the object NP (plus the derived causative use: three interpretations). Verbs of the latter type contain a result verb that can only be predicated of the object NP. More examples of the former type are: *shuo-fan* 'say-bored', *ti-tong* 'kick-ache', *qi-lei* 'ride-tired'.[17] Examples for the latter type are: *ti-po* 'kick-broken', *zhu-hu* 'cook-mushy', *qi-huai* 'ride-broken' etc. Another important distinction between the two types is that the former always allows an intransitive use and the latter is always used transitively. In other words, the sentences in (27a-c) are acceptable without an object:

(27)　a.　Zhangsan shuo-fan le.
　　　　　Zhangsan say-tired Asp.
　　　　　'Zhangsan got tired from speaking.'

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[17]　Huang (1992) and Cheng and Huang (1994) note that with sentences like (i-ii), the definiteness of the object NP determines the interpretation:

(i)　　ta qi-lei-le ma le.
　　　he ride-tired-Asp horse ASP
　　　'He got tired from horse-riding.'

(ii)　　ta qi-lei le napi ma le.
　　　　he ride-tired that horse ASP
　　　　'He rode that horse and that horse got tired.'

In a topicalized sentence, however, the definite horse cannot be the one that gets tired (just like the interpretation of a sentence when *lei* is replaced by *ni* 'tired/bored' which refers only to human beings). In order to express the horse being tired, either a BA structure or a passive structure is used.

(iii)　　(napi) ma, wo yiwei Zhangsan yijing qi-lei/ni-le.
　　　　 that horse I　think　Zhangsan already ride-tired-ASP
　　　　 'That horse, I think Zhangsan already rode and got tired.'

(iv)　　(napi) ma, wo yiwei Zhangsan yijing ba ta qi-lei-le.
　　　　 that horse I　think　Zhangsan already BA him ride-tired-ASP
　　　　 'That horse, I thnk Zhangsan already chased (it) tired.'

(v)　　(napi) ma, wo yiwei yijing bei Zhangsan qi-lei-le.
　　　　that horse I　think already by Zhangsan ride-tired-ASP
　　　　'That horse, I think has already been ridden-tired by Zhangsan.'

b. Zhangsan ti-tong le.
   Zhangsan kick-hurt Asp
   'Zhangsan got hurt from kicking.'

c. Zhangsan qi-lei le.
   Zhangsan ride-tired Asp
   'Zhangsan got tired from riding.'

In these cases, it does not matter what Zhangsan said, kicked or rode. The focus is on Zhang-san's being tired or hurt. The manner of getting tired or hurt is by the action of speaking (27a), kicking (27b) or riding (27c). Similarly, a sentence like (28) does not necessarily express someone being chased. It expresses the children's being tired due to some action of chasing:

(28)   xiaohai zhui-lei-le.
        child   chase-tired-Asp
        'The child chased-tired.'

By contrast, the compound verbs that contain a result verb predicated of the object must have an object:

(29) a. Zhangsan ti-po le.
         Zhangsan kick-broken Asp
         'Zhangsan kick-broken (it).'

      b. Zhangsan zhu-hu le.
         Zhangsan cook-mushy Asp
         'Zhangsan cooked (it) mushy.'

      c. Zhangsan qi-huai le.
         Zhangsan ride-broken Asp
         'Zhangsan rode (it) broken.'

As indicated by the translation, the sentences in (29a-c) are not complete without an object. The sentences in (29), just like (26), can easily have an object and the object can be topicalized. There is no difference in interpretation between the topicalized and non-topicalized sentences.

(30) a. nage qiu, Zhangsan ti-po le.
         that ball, Zhangsan kick-broken Asp
         'That ball, Zhangsan kick-broken.'

      b. nage cai, Zhangsan zhu-hu le.
         that dish Zhangsan cook-mushy Asp
         'That dish, Zhangsan cooked mushy.'

c. naliang danche, Zhangsan qi-huai le.
   that bicycle Zhangsan ride-broken Asp
   'That bicycle, Zhangsan rode broken.'

Let us now return to (24-25). Recall that (25) has the reading of Zhangsan's getting tired from the action of chasing, but not the reading of Lisi's getting tired or Zhangsan's causing Lisi to chase him and getting tired (cf. (24a-c)). If there is a trace in the object position related to the topic, it is not clear why the two readings which require the presence of an object (being the causee or the one that got tired from Zhangsan's chasing) would not be available. Indeed, the unavailability of the reading according to which Lisi got tired from Zhangsan's chasing (24b) is not expected by Cheng and Huang's account because this is not a causative interpretation as the one in (24c). The question is why the reading in (24b) is no longer available when the object is topicalized. Note that this cannot be due to some identification requirements on which subject that the result verb (V2 of the compound verb) can be predicated of because of the acceptability of the sentences in (30a-c).

As a solution, we suggest that the nonambiguity of (25) is related to the fact that the verb of this sentence is just like those verbs in (27), which can be used as an intransitive compound verb syntactically. That is, the verb in (25) is interpreted as an intransitive verb. When it is an intransitive verb, the only interpretation would be that the subject is the one that did the chasing and got tired. The immediate question is how a topic NP is possible in (25) when the compound verb is an intransitive verb, without an object position to be associated with the topic. This is not a real question if we consider the fact that Chinese topics need not be derived by movement. They can be base-generated and be interpreted through a predication relation with the comment clause (an aboutness relation). In (25), since chasing can normally take a chasee, the aboutness relation most likely will derive the reading that Lisi is the chasee.

In brief, the compound verb in (24a-c) is used transitively (because of the presence of an overt object) but the same compound verb in (25) is a syntactically intransitive verb. The topic is interpreted not through its relation to an object of the compound verb but through a predication relation between the topic and the comment. The loss in the topic structure (25) of the reading in (24b) and (24c) follows from the different usage of the compound verb: even though the same verb can be used transitively (including the causative usage) and intransitively, only the intransitive usage is available to the topic structure. If this account is on the right track, the compound verb in (25) does not have the choice of obtaining the potentially available transitive usage and taking an object. Instead, the following generalization must hold:

(31)   If a verb need not take an object and it does not have an overt object, assume that it does not have an object in the syntactic representation.[18]

(31) not only accounts for the lack of ambiguity in (25), in contrast to the ambiguity in (24), and solves the problem raised against Cheng and Huang, but also accounts for the contrast

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[18]   (31) is a statement on the choice of the presence/absence of an object when it is not required. In a *ba* sentence or a passive sentence (indicated by the morpheme *bei*), no such optionality exists. An object of the verb can occur as the NP following *ba* in a *ba* sentence. An object of the verb can also occur as the subject of a passive *bei* sentence. (31) thus is not relevant to *ba* and *bei* sentences.

between the (b) sentences of (19-21) and (22a-c). Let us repeat (19b) and (21a) here for illustration:

(19) b. Lisi mang-bing-le Zhangsan.
       Lisi busy-sick-ASP Zhangsan
       'Lisi got Zhangsan to be sick from being too busy.'

(22) a. *Zhangsan, Lisi mang-bing-le.
       Zhangsan Lisi busy-sick-ASP
       'Zhangsan, Lisi got sick from being too busy.'

A compound verb 'busy-sick' does not need to take an object: someone can be busy and get sick and no other argument NP is needed, even though a causative structure may be derived by adding an extra argument, as in (19a). If a causative reading is intended, a causee occurs overtly in the typical object position, the postverbal position in this case. When the postverbal object is topicalized (22a) (therefore no overt object follows the verb), the sentence is interpreted as if there is no postverbal object. When no postverbal object exists, Lisi is the only argument that is related to being busy and sick. Since Lisi is the one being busy and sick, Zhangsan will have no interpretation and the sentence becomes unacceptable. The availability of a causative interpretation depends on the occurrence of the object NP overtly, which is lacking in (22a).[19]

In brief, some notion of minimal effort plays a role in determining the interpretation or acceptability of sentences with resultative compound verbs. When there is no overt verbal object, the structure behaves as if there is a trace related to the topic only when the compound verb requires an object.[20] Otherwise, the sentence is interpreted as if there is no object position projected. In other words, if a position is subcategorized by the compound verb, it is projected; if it is optionally subcategorized and the object does not occur overtly, the object position is not projected. The choice of a syntactic representation thus seems to be subject to a minimality consideration.[21]

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[19] Unlike (25), an aboutness relation does not save this topic structure because 'busy' and 'tired' are not easily associated with any others than the one that is busy and that is tired.   Moreover, just as mentioned in the previous note, a *ba* or passive sentence can save the causative interpretation, because the object occurs overtly as indicated by *ba* and *bei*.

  (i)   Zhangsan, Lisi ba ta mang-bing le.
         Zhangsan, Lisi BA him busy-sick Asp
         '(Zhangsan), Lisi made him busy and sick.'

  (ii)   Zhangsan bei Lisi mang-bing le.
         Zhangsan by Lisi busy-sick Asp
         'Zhangsan was made busy and sick by Lisi.'

[20] Relativization seems to behave in the same way, though some other factors seem to affect the interpretation (such as the occurrence of the aspect marker *le*). More detailed investigation is needed.

[21] In a causative sentence, a null CAUSE morpheme is present in the syntactic representation (see Huang 1992). The question is what difference exists between such a null morpheme being projected and the empty object not being projected when not required by subcategorization. An answer might lie in the difference between a head and a complement: a head is obligatory but a complement can be optional. This, however, is speculative and requires more examination of the nature of "minimal projections/representations."

Such an account would predict that, when an object is required, movement of the object should still be possible, leaving a gap. We have seen that regular transitive verbs that require an object allow topicalization (30). *Ba* sentences and passivation are further examples. Let us briefly discuss passivization here. A passive sentence passivizes an object and, has morphological clues (the presence of the indicator of a passive sentence *bei*) indicating the obligatory presence of an object position. Because of the obligatory presence of an object position, the prediction should be that passivization of the object of a causative verb is acceptable. This prediction is born out, as the following passive sentences are all significantly better than their topicalized counterpart.

(32) a. Zhangsan bei Lisi mang-bing-le.
        Zhangsan Lisi busy-sick-ASP
        'Zhangsan was made busy and sick by Lisi.'

    b. Lisi bei zhejian shi qi-si-le.
        Lisi, by this matter anger-death-Asp
        'Lisi was angered to death by this matter.'

    c. ?Lisi bei zhe ping jiu he-zui-le.[22]
        Lisi by this bottle wine drink-drunk-Asp
        'Lisi was made drunk by this bottle of wine.'

The contrast between topicalization and passivization further reinforces the conclusion we reached in section 1: topic structures can be moved or base-generated. When there are no morphological clues forcing the movement structures, the base-generation structure is adopted. Moreover, the choice affects the the decision of what syntactic structures a sentence has. That is, it plays a role in deciding on appropriate structural projections.

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[22] Although the passive sentences are significantly better than the topicalized counterpart, some seem to be worse than the others. (32c), for instance, seems to sound less acceptable than (32a-b). It is not clear what the intervening factor might be.

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The Topic-Prominence Parameter

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Abstract

This article aims to recast the properties of topic-prominent languages and their differences from subject-prominent languages as documented in the functionalist literature into the framework of the Principle-and-Parameter approach. It provides a configurational definition of the topic construction called Topic Phrase (TP), with the topic marker as its head. The availablity of TP enables topic prominent languages to develop various topic structures with properties such as morphological marking; cross-categorial realization of topics and comments; and mutiple application of topicalization. The article elaborates the notion of topic prominence. A topic prominent language is characterized as one that tends to activate the TP and to make full use of the configuration. Typically, it has a larger number and variety of highly grammaticalized topic markers in the Lexicon and permits a variety of syntactic categories to occur in the specifier position and the complement position of TP.

1. Introduction

The distinction between topic-prominent languages (TPL) and subject- prominent languages (SPL) was first introduced in Li and Thompson (1976) and has since been widely accepted by linguists as a typology to classify languages. This article aims to recast the properties of TPL and their differences from SPL into the framework of the Principle-and-Parameter approach. Following Li and Thompson, we take Chinese as a typical example of TPL and expect our proposal applies to other TPL as well.

The properties of TPL are well-documented in the literature of functionalist grammar, notably in Li and Thompson (1976) and Tsao (1979). From the structural point of view, a typical TPL distinguishes itself from other languages in the following respects:

- A topic is related either to a particular constituent within the comment that follows or to the comment as a whole.
- Such a relation is characterized by unbounded dependency and exemption from the familiar island conditions is commonplace.
- Multiple application of topicalization is permissible.
- Syntactic categories other than noun phrases can be topicalized.
- A topic may occur clause internally as well as initially.
- A topic may be morphologically or lexically marked.

The means should be available in Universal Grammar (UG) for languages to develop various topic structures to realize these and other properties. A language that chooses to activate such means is parametrically different from one that chooses not to. In terms of language acquisition, a child sets the parameter by turning the switch to one or the other

direction in response to evidence from the data containing topics it is exposed to in the early stage of language learning.

This article is an elaboration of the Topic-Prominence Parameter. It concentrates on *the common properties of the topic construction, with little attention to the differences between various topic structures*[1]. It is organized as follows. Section 2 is a summary of some of the important facts observed in the literature about the relation between topic and comment in Chinese. Section 3 compares three alternative ways to designate the structural position of the topic, with a view to providing a basic syntactic configuration to represent the topic construction in general. Section 4 demonstrates how languages like Chinese may make full use of the configuration to develop properties characteristic of TPL. Our proposal provides a unified account of a number of structures that can be subsumed under *the topic construction. A summary is made in Section 5.*

2. Topic and Comment[*]

The facts presented in this section constitute the basis for proposing a syntactic configuration to represent topic construction in Chinese.

The topic sentence in Chinese contains three elements in the following order: (i) a topic, which is typically a noun phrase, but can be other syntactic categories as well; (ii) a topic marker adjacent to the topic; and (iii) a comment, which is typically, though not necessarily, a clause. It will be shown later that whatever syntactic form it takes, semantically a comment is a predication or contains a predication. A topic marker need not be phonetically realized, though phonetic realization is always possible. This implies what *cannot be followed by a topic marker is not a topic. So the marker is not a filler,* which can be inserted anywhere in a sentence to mark a pause. Whereas the topic marker can be empty, the topic itself cannot. Neither can the comment. Throughout the article we do not consider expressions that do not occur initially but can be defined as topics in terms of information structure. We claim that structurally the conjunction of (i), (ii) and (iii) is a necessary and sufficient condition for a topic construction.

A semantic relation exists between the topic and the comment which is often characterized roughly as aboutness. The comment is, in a broad sense, about the topic.[2] The aboutness relation shows *itself in one of the following ways.*

The topic may be related to an empty element in the comment. A typical example is provided below, in which the topic is most naturally interpreted as the understood object. A comma will be placed after a topic marker or a topic in the Chinese example sentences. However, it should not always be interpreted as a pause in speaking or a punctuation mark in writing.

(1)   Shuguo, wo xihuan
         fruit   I like
         'Fruit, I like.'

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[1] In this article any sentence that contains one or more topics is regarded as a topic construction "Topic construction" is used as a general term covering a variety of topic structures. A syntactic configuration beginning with a topic is called a Topic Phrase. The internal structure of a Topic Phrase will be shown later.

[*] Glosses used in the examples: CL-classifier, DAT-dative, MOD-modality particle, NOM-nominative, RSP-resultitive particle, SFP-sentence final particle, TOP-topic marker.

[2] For other views on the topic-comment relation, see Schlobinski and Schütze-Coburn (1992).

It was proposed, first in C.-T.Huang (1982), that such a topic structure is derived by an operation identical to the movement of *wh*-phrases in forming interrogative sentences in English.

The topic may be coreferential with an overt element, a pronoun or a full noun phrase, as well as a null expression in the comment. Similar cases are found in English, known as dislocation in the literature.

(2)   Zhege ren,   wo bu xihuan ta
        this   person I not like   him
        'This person, I don't like him.'

There may exist a relation other than coreferentiality between the topic and an expression in the comment. It is a part-whole relation in (3) and an inclusive relation in (4) below.

(3)   Zheke shu, yezi   da
        this   tree leaves large
        'The leaves of this tree are large.'

(4)   Shuiguo, wo xihuan pingguo
        fruit   I like   apple
        'As for fruit, I like apples.'

Leaves are part of a tree and apples form a subset of fruits. Where there is an inclusive relation, the topic is always the superordinate term, while the expression in the comment is its hyponym. The reverse order is not acceptable.

(5)   *Pingguo, wo xihuan suigguo
        apple   I   like   fruit

Topic structures exemplified by (3) and (4) have no word-for-word translations in English. Various attempts have been made to solve the so-called "double subject" problem. For instance, Schlobinski and Schütze-Coburn (1992) argue that the first NP in (3) is syntactically and semantically a modifier of the adjacent NP, thus denying the sentence the status of a topic structure. But their proposal does not apply to (4) and many other sentences similarly structured as (3) or (4). Furthermore, the topics in (3) and (4) cannot be analyzed, without obvious manipulation of the structure, as the result of some element originally in the comment being moved to the front for some reason.[3]

Finally, the topic may be related to the comment as a whole, but not specifically to a single expression in it. A classic example that has been repeatedly cited by linguists working on Chinese topicalization since Chao (1968) is (6).

(6)   Neichang da huo, xingkui   xiaofangdui lai de zao
        that   big fire fortunately fire-brigade came early
        'As for that big fire, fortunately the fire brigade came early.'

The topic here is what Chafe (1976) calls a Chinese style topic, which is not found in grammatical sentences in English and other European languages.

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[3]   In early transformational grammar, it was proposed in Thompson (1973) that the deep structure of (4) is *wo xihuan pingguo shuiguo* '*I like apples fruit.'

Recently Shi (1992) and Yuan (1996) have independently argued that (6) is incomplete by itself. To make it complete, the hearer must make his contribution by supplying an understood sequel, for instance:

(7)   cai   mei zaocheng sunshi
        consequently not cause   damage
        'consequently (it) didn't cause damage.'

When the topic structure (6) is expanded to include (7), an empty element appears and can be interpreted as coreferential with the topic in (6). The entire stretch is called a topic chain[4]. Obviously, their objective is to show that a topic must be related to a particular expression in the comment and, if possible, to prove that a topic invariably binds a trace.

It is not clear how completeness on the extra-sentential level is defined. Once on that level, island conditions on topic movement, etc. that have been developed exclusively for sentence grammar, will no longer be relevant anyway. The point at issue is more relevance than completeness. Where a topic identifies something to be commented on, it is generally possible to reword the comment or expand it so that the topic becomes more transparently relevant. Even if one could define completeness, the proof they have in mind does not follow from the requirement of completeness. It takes little reflection to see that (7) is merely one of the possible sequels to (7). Alternatives such as (8), serve the purpose equally well.

(8)   women cai   mei sunshi shenme
        we   consequently not lose   anything
        'consequently we lost nothing.'

There is no empty category in (8) coreferential to the topic in (6). One may argue that it contains an implicit argument, which is the potential causer of loss. Similarly, it is possible to introduce an implicit adjunct in other cases. But this sort of explanation simply shows that the topic is required to be semantically, not syntactically, related to an element within the comment.

Aware of this problem, Shi (1992) tries to draw a distinction between (6) + (7) and (6) + (8) by assigning the following interpretations respectively:

(9)   a. = (6) + (7)   As for that big fire, fortunately the fire brigade came early,
                        Consequently, it did not cause damage.

       b. = (6) + (8)   At the time of that big fire, fortunately the fire brigade came
                        early. Consequently, we lost nothing.

But other Chinese speakers do not feel the contrast and accept the alternative interpretations without difficulty:

(10)   a. At the time of that big fire, fortunately the fire brigade came early,
          Consequently, it did not cause damage.

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[4]   The topic chain may well be a discourse notion as in such cases the sentence boundary in Chinese is not
      clear-cut.

b. As for that big fire, fortunately the fire brigade came early.
Consequently, we lost nothing.

Whether *neichang da huo* is interpreted as an entity or as an event is one thing, and whether the NP binds a single constituent in the comment or not is quite another. There is no correlation between them. In our opinion, whichever way the NP is interpreted, it is a topic as long as it occurs in the topic position and can be followed by a topic marker.

Maintaining the observation and analysis made by Chao (1968) and accepted by Li and Thompson (1976) and many other grammarians, we regard the following as a semantic condition on the topic:

(11)   A topic is semantically related to an expression, null or overt, in the com-
ment or to the comment as a whole. The relation between them can be one
of coreferentiality, inclusion, part-whole, etc.

Henceforward, we will use this semantic requirement as one of the diagnostics for the topic construction. A stronger claim one could make is that the comment is a one-place predicate related to the topic, which is either an argument or an adjunct. But to move in this direction one should propose a mechanism to cover part-whole relation as well as operator-variable relation.

3.   Configuration of Topic Construction

There are at least three ways to represent the topic construction, with the topic occurring in the specifier position of CP, or in a position adjoined to IP, or in the head position of another functional phrase called Topic Phrase (TP). We provide reasons why we prefer the latter.

3.1. Topic as Spec of CP?

In Huang (1982)'s representation of the Chinese topic construction, a topic is analyzed as taking the complementizer position (COMP) of S'. In the current version of phrase structures, a moved *wh*-phrase takes the specifier position of the functional phrase Com-plementizer Phrase (CP) as the head position of CP is reserved for the complementizer (C) itself. This analysis is motivated by the observation that in some languages a *wh*-phrase and C may co-occur, with the former to the left of the latter. However, placement of a topic in Spec of CP in Chinese would seem much less well-motivated. A topic in Chinese is not a moved *wh*-phrase and it never has a chance to meet C.

There has been a heated debate as to whether topic structures in Chinese are the results of *wh*-movement. It is not the main concern of this article whether the relation between the topic and the relevant expression in the comment is subject to the island conditions. Readers are referred to the articles representing both views, C.-T. Huang (1982), C.-T. Huang and Li (1995), etc. on the one hand, and Xu and Langendoen (1985), C.-R. Huang (1991), etc. on the other. But it should be clear from the facts documented in the literature that a topic binding a trace or variable in the comment is not a necessary requirement of the topic construction in Chinese. One may choose to treat some topics as derived by movement, if one wishes. For instance, Shyu (1995) renames a base-generated topic as a major subject, to be distinguished from the syntactic subject, i.e. subject in the ordinary

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sense, on the one hand and from the moved topic on the other hand.[5] Evidently, it is difficult to maintain the position that all topics, including the ones in (3), (4), (6), etc., originate from somewhere in the comment.[6]

Before one is convinced that a topic occurs in Spec of CP, one would like to know what C and CP are in Chinese in the first place. For years grammarians have been trying hard to find a complementizer or complementizers in Chinese. Tang (1989) considers sentence final particles expressing modality, such as *ba, le, ma, ne,* the most likely candidates[7]. However, Chinese sentence-final particles differ from the complementizers in English and other languages in two important respects.

First, Chinese sentence-final particles do not have the property that motivates the nomenclature. It is argued in Ouhalla (1992) that a complementizer is basically a nominalizer, whose function is to nominalize an otherwise verbal clause, thus turning it into a complement. This is why it occurs only in an embedded clause or in a sentential subject, but never in a main clause. It also explains why a gerundive clause, which is already nominal in nature, does not need a complementizer. In Chinese, on the contrary, a sentence final article closes a main clause, rather than an embedded clause. It therefore does not complementize anything.[8]

Secondly, two sentence final particles can co-occur in a single clause. In English, *that* introduces a statement and *whether* a yes-no question. As no clause can be semantically a statement and a question at the same time, they never meet. Sentence final particles in Chinese form a relatively large class, each member having its own specific modality meaning. Since the meanings they carry are not always mutually exclusive, co-occurrence does not necessarily lead to contradiction. The following sentence is taken from Tang (1989:235).

(12) wo chi wanle fan le
      I   eat finish rice SFP
      'I've eaten the rice.'

This sentence can be turned into a question simply by adding another sentence final particle, the interrogative particle *ma.*

(13) Ni chi wanle fan le   ma
      you eat finish rice SFP SFP
      'Have your eaten the rice?'

It is well-known that in some languages a COMP position can be filled by a complementizer and a *wh*-phrase together. In Chinese, however, even a COMP filled with two complementizers is not ungrammatical. So one would not expect Chinese to have constraints like *that* effects, that lead to the postulation of the Empty Category Principle. Thus, the proposal of putting a topic in CP has little theoretical motivation.

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[5] Shyu makes a further distinction between the focused topic and the topic without focus. Such differences fall outside the scope of our study.

[6] There is no strong evidence that the position for moved *wh*-phrases in European languages is the position for topic in Chinese, especially when one notes that it is argued in Müller and Sternefeld (1993), etc. that topicalization in European languages does not involve *wh*-movement.

[7] But in the end he rejects the analysis, according to Gasde and Paul (1996:286).

[8] The only exception is *de,* which can occur in an inner clause. But a closer inspection reveals that it closes any categories that function as modifiers, NPs and PPs as well as clauses.

Law (1990) in her study on Cantonese final particles identifies the issue and tries to solve the problem of doubly-filled COMP by claiming that while *le* is situated in the head position of CP, *ma* goes to the specifier position of CP. Her argument is that when Spec of CP is occupied by *ma,* a particle marking a yes-no question, a *wh*-phrase cannot enter. This is what is expected, given the LF-movement hypothesis in Huang (1982). However, if this proposal is adopted, a topic can take neither the head nor the Spec position of the CP.

In view of the fact that little is in common between CP in English and TP in Chinese, instead of equating TP with CP, we propose to view TP as an alternative to CP. Put in a slightly different way, one can say that both CP and TP are available in universal grammar, but a language may choose to activate one or both of them. TPL like Chinese naturally make more use of TP as compared with SPL. It may use CP for sentence final particles or clause initial conjunctions. But I will not consider CP further in this article.

3.2. Topic Adjunction to IP?

From the beginning of studies in generative grammar, adjunction of YP to XP has had an important place as an easy device for elements put away from the positions in which they were to be interpreted. The analysis of a topic as adjoined to IP dates back to Baltin (1982). As the theory evolved, movement and rearrangement tended to bifurcate. On the one hand the movement operation may be formulated as Move α, for which adjunction, if used at all, is mainly for theory internal purposes. On the other hand adjunction is now restricted to operations such as scrambling, extraposition, VP-adjunction, etc. which Chomsky (1995:324) suggests should be excluded from the framework of principles as something beyond the core computational properties of the language faculty. Chinese topicalization cannot be identified with *wh*-movement. As has been shown earlier, at least some topic structures obviously do not involve movement. But it is possible that all topics are the result of displacement, rearrangement, scrambling? If so, adjunction may be the right analysis.

Scrambling is common in Germanic languages and Japenese. While Japanese has case markers to distinguish scrambling from topicalization, there is no similar morphological indication in Chinese. Prima facie, Chinese topicalization does share some of the properties of scrambling in Germanic languages discussed in Müller and Sternefeld (1993). Whereas topicalization in Germanic languages can take place only once, scrambling can be easily reiterated, similar to multi-topic structures in Chinese. For instance, the following sentence involving scrambling cited in Müller and Sternefeld (1993:480) can be rendered into Chinese.

(14)   dass dem   Fritz $_i$ die Geshichte$_j$ [$_{IP}$ niemand t$_i$ t$_j$ glaubt]
       that the-DAT   Fritz the story   nobody-NOM   believes
       '...that nobody believes Fritz's story.'

(15)   Zhangsan a,   tade shuofa [mei ren   xiangxin]
       Zhangsan TOP his story   no person believe

We will address multi-topic structures further in Section 4.2.

There is another apparent similarity between topicalization in Chinese and scrambling in Germanic languages. In most Germanic languages, embedded topicalization is licensed only in special contexts, following a small number of bridge verbs, while on the other

hand no lexically-based restriction applies to scrambling.[9] In Chinese topicalization in embedded clauses is common.[10]

On the other hand, topicalization in Chinese differs from scrambling in Germanic languages and Japanese in two crucial respects, permission of resumptive pronouns and unbounded dependency. The existence of an optional resumptive pronoun is illustrated in (2). The similarity between the German topic structure in (16) and the Chinese topic structure in (17) shows that like Germanic topicalization, but unlike Germanic scrambling, Chinese topicalization is not clause-bound.

(16)   Pudding glaube ich [dass sie mögen würde]
        Pudding believe I   that she would like
        'Pudding, I believe she would like.'

(17)   Buding, wo xiangxin [ta hui   xihuan]
        Pudding I believe she would like
        'Pudding, I believe she would like.'

Furthermore, when two elements in the embedded clause are topicalized, one or both of them can appear at the beginning of the main clause. All three sentences below are grammatical.

(18)   Zhejian shi,   [ta shuo [youxie ren   [ta mei gaosu]]]
        this   matter he say some people he not tell
        '*This matter, he said that, some people, he didn't tell.'

(19)   youxie ren,   [ta shuo [zhejian shi   [ta mei gaosu]]]
        some people he say this   matter he not tell
        '*Some people, he said that, this matter, he didn't tell.'

(20)   zhejian shi,   youxie ren,   [ta shuo [ta mei gaosu]]
        this   matter some people he say   he not tell

To summarize, while the topic construction in Chinese is less restrictive as compared with its counterparts in Germanic languages, it is not the same as scrambling. Rather, occurring in the leftmost position, the topic in Chinese takes the most natural place. In TPL like Chinese, the topic construction represents the canonical form. If the subject in SPL has a position of its own at all levels of representation, the topic in TPL should likewise be assigned its own position. We therefore prefer not to treat topics as adjoined to IP, as adjunction now tends to be used for minor rearrangement of word order.

3.3. Topic Phrase

We now consider the last of the three alternatives, analyzing the topic construction in Chinese. as a functional phrase called Topic Phrase, abbreviated as TP. This is the analy-

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[9]   Japanese has long-distance scrambling, but we will not address the issue here, cf. Saito (1992) and his discussion of Webelhuth's hypothesis.

[10]   It has been observed in Lu (1994) and Fu (1994) that topicalization in some types of embedded clauses is not as unlimited as in main clauses. But such a limitation does not alter the fact that topicalization does apply to a large variety of embedded clauses in Chinese.

sis adopted in Gasde and Paul (1996), though no arguments are provided there in support of their choice.
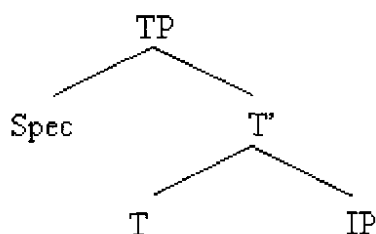
Compared with the two alternative analyses discussed in subsections 3.1 and 3.2 respectively, this treatment does full justice to the vitality of the topic and prevalence and abundance of topic structures in TPL. In SPL the relative linear or hierarchical order of subject, verb and object is the backbone of the sentence structure. Any deviation from the norm of a language is a derivation resulting from operations of movement or rearrangement of a certain constituent. *Wh*-movement and IP-adjunction are mechanisms used to give rise to syntactic variation. In TPL, however, the topic is as important as, if not more important than, the subject in the sentence structure. If UG provides CP for SPL, it should provide TP for TPL as well. Alternatively, one may say that CP and TP are one and the same maximal projection above IP. Individual languages may choose to exploit either or both.

Now we look into the internal structure of TP. Since it is not clear how agreement and tense are represented in Chinese or what roles AGR and TNS play in Chinese sentential structures, throughout this article we use Inflection Phrase (IP), without breaking it into Agreement Phrase and Tense Phrase. Thus TP is used here exclusively to stand for Topic Phrase, not Tense Phrase.

Following Gasde and Paul (1996), we take TP as the maximal projection of its head, a functional category T, which is the topic marker such as *ne, me*. What immediately precedes T and is marked by it, is the topic itself, which occurs in the specifier position under TP. Henceforward, we define topicalization of a constituent as attaching a topic marker, overt or null, to it, without implication of movement. We will take the capability of taking a topic marker as another diagnostic for a topic in addition to (11). The complement of T, typically an IP, is the sister of T. Deviating from Gasde and Paul (1996), we prefer not to represent CP either above TP or below it in the analysis of topic structures in Chinese for reasons stated earlier.[11]

The configuration of TP is as follows.

(22)

```
              TP
           /      \
        /            \
      Spec            T'
                   /      \
                 /          \
                T            IP
```

The topic structure in (23) can be represented as (24) with details under IP unspecified.

(23)   Shuiguo me, ta zhi chi pingguo
        fruit   TOP he only eats apples
        'As for fruits, he eats apples only.'

---

[11] In Chomsky (1977), a topic structure is derived from the base rules: S"→TOP S', S'→COMP S. In Gasde and Paul (1996), it is the other way round. There is no empirical evidence in favor of either of the options. In Chinese the topic and the complementizer never meet, if sentence-final particles are taken as complementizers. While CP is head-final, TP always takes a complement to the right of the head. Thus a topic occurs at the very beginning of a sentence and a modality particle at its very end.

(24)

```
                        TP
                   ___/‾‾\___
                  /          \
               Spec           T'
                |          ___/‾\___
                |         /         \
                |        T           IP
                |        |         /‾‾\
                |        |        /____\
             shuiguo    me    ta zhi chi pingguo
```
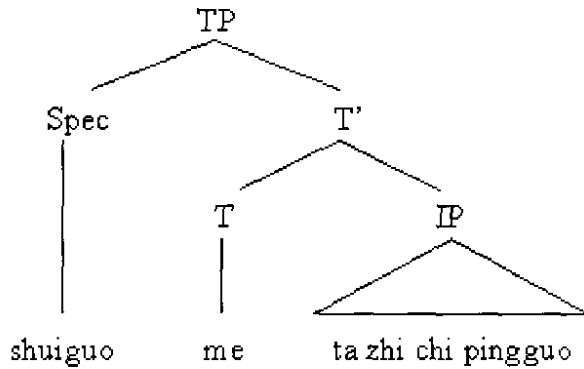
In the current version of the Principle-and-Parameter approach, the Minimalist Program gives up the traditional notion of having a single configuration as the starting-point of derivation and claims that syntactic structures are built through generalized transformation that joins already formed trees. In this spirit, one may assume that a topic structure is formed in the following manner. In the computational component of grammar, an IP may be targeted by the computational system to expand and project. Another constituent formed by lexical items from the Lexicon may be inserted above the IP as its topic, resulting in a larger tree, that is, TP. Alternatively, if the IP is not targeted for expansion, the sentence will not have a topic. For those who prefer to take some topic structures as derived by a movement operation, they may assume that in such cases the topic position is filled by a constituent from within the IP instead of from outside. When all the lexical items taken from the Lexicon are put together and operations completed, the TP is ready to meet the interface conditions at LF and PF. Later in Section 4 it will be shown that TPL are such that they expand IP into TP more frequently, expand categories other than IP into TP, and insert categories other than NP when forming TP.

It should be noted that other devices are also available in Chinese to indicate a topic. A topic can be introduced by an element with more lexical meaning than the purely grammatical forms which we call topic markers, e.g. *shuodao* 'speaking of', *guanyu* 'as for'. They can co-exit with topic markers, which means they should not be regarded as topic markers.

(25)   Shuodao zhege wenti   me, wo you yijian
         speak-of this   problem TOP I   have opinion
         'Speaking of this problem, I have my opinion.'

(26)   Guanyu zhege wenti   me, wo you yijian
         speak-of this   problem TOP I   have opinion
         'As for this problem, I have my opinion.'

4.   Properties of TPL

With (22) as the basis, we will show that the parametric variations of TPL from SPL arise as the natural consequences of expansion, projection, generalized transformation, etc. of the constituents in (22).

4.1. Head of TP

UG recognizes a number of functional heads as universal across languages. But not all of them are lexicalized or morphologically marked in all languages. An example readily available is that Chinese lacks lexical or morphological forms of AGR. Likewise, not all languages have lexical or morphological forms of T. A parametric variation across languages with regard to topic prominence is that some languages or dialects have a richer T system than others, just as some languages have richer AGR than others. Taking this view, one may attribute the parametric variation between languages to the lexical differences of their functional heads in conformity with the spirit of the Minimalist Program advocated in Chomsky (1995) and elsewhere.

TPL are more likely to have topic markers. A typical example cited in Li and Thompson (1976) is Lisu, a language spoken in Thailand, in which the topic marker is *nya*. According to Cheng (1991), Bunun, an Austronesian language spoken in Taiwan also has topic markers *qai, a*, etc. It has subject and object markers as well. However, when an expression is the subject and the topic at the same time, the subject marker is subdued but the topic marker survives. In Japanese, where both topic and subject are prominent, one finds a marker for each.

A richer T system means a larger number and variety of topic markers. It also means the existence of forms exclusively used for the purpose of marking topics. Mandarin makes use of a number of topic markers, *a, ba, me, ne, ya*, etc., which also serve as sentence final particles. The Wu Dialect of Chinese has forms that mark topics only. Shanghainese, a representative of Wu, uses a number of topic markers, *a, meq, neq, to, zy*, the last two of which are used as topic markers only. This fact correlates with other TPL properties. Shanghainese is more typically topic-prominent than Mandarin in terms of the variety of topic structures used and the frequency of their occurrence. The Lexicon of TPL typically contains a syntactic category of functional words or morphemes that can be inserted under the head of TP in the same way as the Lexicon of SPL possesses a category of AGR morphemes. In Chinese, the members of the set of topic markers may overlap with those that belong to the set of sentence-final particles. Alternatively, one may assume that they belong to one single lexical set and may take either a positive or a negative value of the feature [TOP] in a sentence.
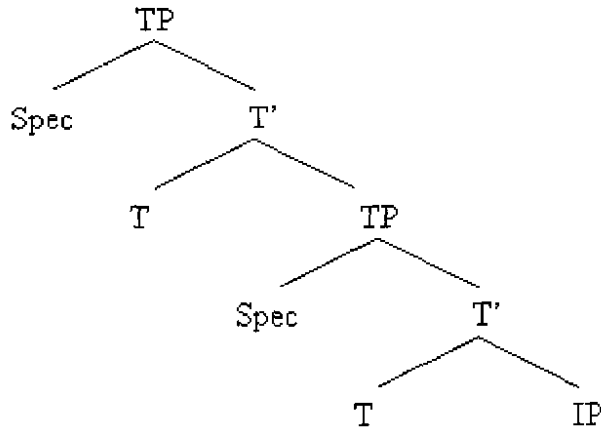
4.2. Complement in TP

In a typical TPL, constituents other than IP can also be targeted by the computational system of grammar to expand into TP.

4.2.1. TP as Complement in TP

To derive multi-topic structures, we assume that TP can be recursive, where T takes another TP as its complement.

(27)

```
                TP
             /\
          /      \
       Spec        T'
                 /\
              /      \
           T            TP
                     /\
                  /      \
               Spec        T'
                         /\
                      /      \
                   T            IP
```

The example in cited (15) has this configuration. The following sentences are more typical illustrations of double-topic structures.

(28)　Zhejian shi,　youxie ren,　ta mei gaosu
　　　this　matter some　people he *not tell*
　　　'?This matter, some people, he didn't tell.'

(29)　Zaocan,　mianbao, ta zhi　chi yi　pian
　　　breakfast bread　he only eats one slice
　　　'As for breakfast, he eats one slice of bread only.'

Recently Shyu (1995:110) argued that Chinese generally does not allow multiple application of topicalization. In her terminology, *zaocan* and *mianbao* in (29), are not topics but what she calls major subjects. To deny the grammaticality of multi-topic structures, one should explain why sentences like (28) are grammatical. It is easy to construct some unacceptable sentences containing two topics. But they may be unacceptable for other reasons. Consider Shyu's example.

(30)　*Gei Lisi, cong meiguo, Zhangsan jile　yiben shu
　　　to　Lisi from USA　Zhangsan send one　book
　　　'To Lisi, from the USA Zhangsan sent a book.'

This sentence sounds unacceptable because out of context one can hardly see the motivation of using a double-topic structure. Imagine that Zhangsan's parents are complaining that he sends presents to his wife, but not to them and, in particular, they are unhappy because he sent them nothing from the US. We now have a context for using the double-topic construction. Someone can pacify his parents by saying:

(31)　Gei fumu,　cong meiguo, ta queshi mei ji　sheme,　keshi cong biede
　　　to　parents　from USA　he indeed not send anything but　from other
　　　difang ta jile　bu　shao dongxi
　　　place　he send not little thing
　　　'To his parents, from the USA, he didn't send anything, but from other places he did send a lot of things.'

Reiteration of topicalization is available in Chinese, but it should not be abused in discourse.

4.2.2. VP as Complement in TP

The system of grammar can target a VP to expand into a TP by generalized transformation. There are several types of VP structures that have TP over them.

One type is the kind of sentences involving what is referred to as object preposing in Ernst and Wang (1995). An illustration is provided in (32).

(32) Wo zaocan, bu chi
      I breakfast not eat
      'Breakfast, I don't eat.'

Ernst and Wang compare two hypotheses for deriving sentences like (32) below. One of them, which they call the double topicalization hypothesis, involves two-step movement: starting from (33), moving the object NP to the sentence-initial position, resulting in (34), and then moving the other NP across the one moved, resulting in (32) finally.

(33) Wo bu chi zaocan
      I not eat breakfast
      'I don't eat breakfast.'

(34) Zaocan, wo bu chi
      breakfast I not eat
      'Breakfast, I don't eat.'

An alternative analysis, called VP-adjunction hypothesis, derives (32) directly from (33) by moving the object NP and adjoining it to the VP, thus skipping the intermediate structure.

Providing a number of convincing arguments, e.g. topicalization analysis, adjunct distribution, presence of emphatic markers, restrictions on embedded topicalization, position of modals, etc. to support the latter against the former, they conclude that at least some object-preposed sentences cannot be derived by two-step movement.

But at least some NPs preceding the verb cannot be derived by one-step movement, either, for some other reasons. Compare (35) with (32).
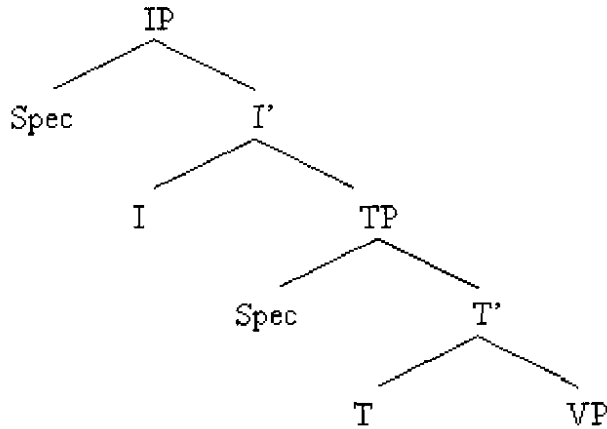
(35) Wo zaocan, bu chi mianbao
      I breakfast not eat bread
      'I don't eat bread for breakfast.'

In (35), since the verbal complement position is occupied by another NP *mianbao*, it is impossible to move *zaocan* back as *mianbao zaocan* or *zaocan de mainbao* is unacceptable.

We, therefore, propose to represent the structure of (32) and (35) uniformly as follows.[12]

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[12] We will not address the question whether the subject NP is moved from the Spec of VP into the Spec of IP or is originated in the latter position. See Aoun and Li (1993).

(36)

```
                    IP
                   /  \
                 Spec   I'
                       /  \
                      I    TP
                          /  \
                        Spec   T'
                              /  \
                             T    VP
```

Another type of the TP-over-VP construction is the double object construction. The sentence below is a typical example.

(37)   Ta gei   erzi yizhuang fangzi
        he give son one   house
        'He gave his son a house.'

The dative object can be topicalized by inserting a topic marker like *me* after it.

(38)   Ta gei erzi me, yizhuang fangzi; nuer   me, yizhi zuanjia
        he give son TOP one   house daughter TOP one diamond-ring
        'He gave his son a house and gave his daughter a diamond ring.'

One may question whether the NP *erzi,* once followed by a topic marker, must be analyzed as a topic and no longer as a dative object. This is comparable to the case where the subject in a simple SVO construction is topicalized by inserting a topic marker.

(39)   Erzi me, you yizhuang fangzi
        son TOP have one   house
        'The son has a house.'

There have always been conflicting views among traditional grammarians. Some take *erzi* in (39) to be a topic, followed by an empty subject. Others prefer not to invoke the notion of empty subject. In the latter's grammatical system, *me* marks a subject as well as a topic. A better example to show that a TP may top a VP in a double object construction is one in which the topicalized NP has a dative object following it and semantically related to it in the way stated in (11). An example is given below.

(40)   Ta gei erzi yijia me, mei ren   yijian liwu
        he give son family TOP every person one   gift
        'He gave everybody in his son's family a gift.'

In (40) the NP with the topic marker is semantically related to another NP *mei ren* 'everybody', which is the dative object of the verb *gei* 'give'. The kind of aboutness relation

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is typical of the topic construction, parallel to the relation between the topicalized NP and *mei ren* in (41).[13]

(41) Erzi yijia   me, mei   ren   dele yijian liwu
      son family TOP every person got one   gift
      'In his son's family, everybody got a gift.'

If *erzi yijian* in (41) is a topic, so is the same expression in (40).

How should such a topic structure be syntactically represented? One way is to adopt the VP shell analysis proposed in Larson (1988). Thus *mei ren* in (40) is within an inner VP which is the complement of a TP as in (42)[14].

(42)
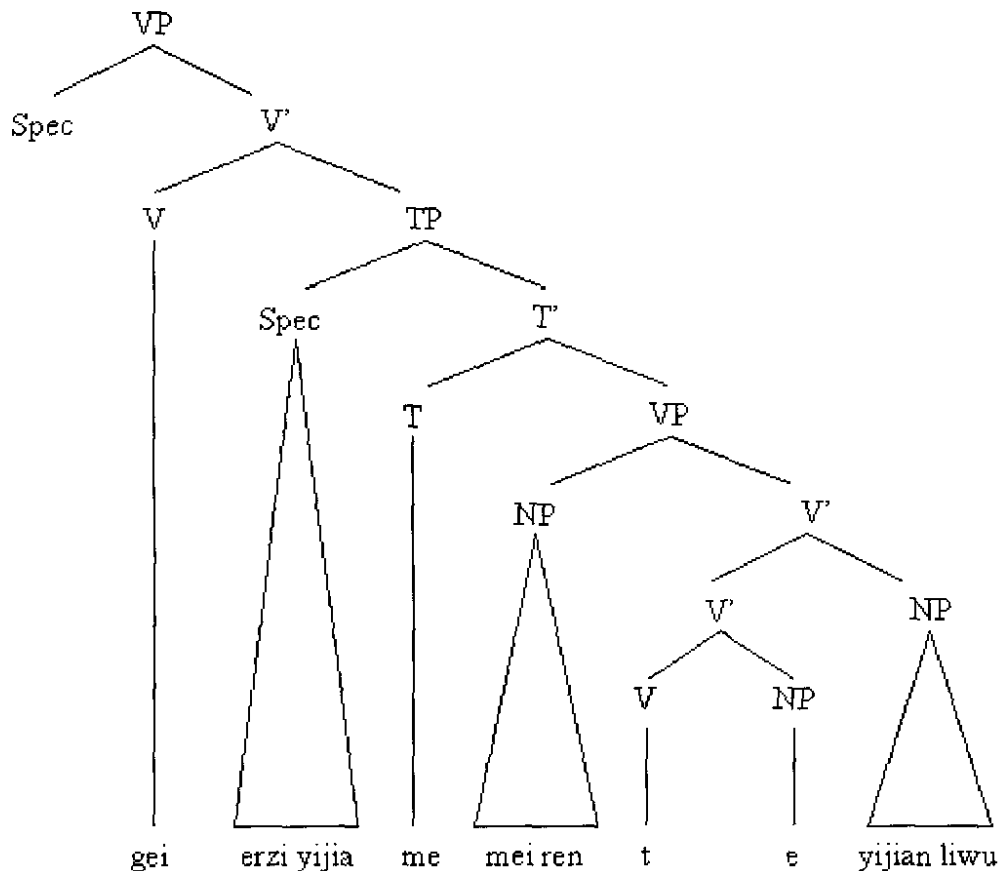
Alternatives to the above analysis are available. For instance, one may analyze the dative object and the NP that follows as a small clause associated with the semantics of possession, following Kayne (1984) or as a Predicate Phrase, an umbrella term for both full clause and small clause, following Bowers (1993).

The complement of T in TP is required to be an instance of predication in a broad sense at least to avoid overgeneration.[15] This is why TP cannot top a double object structure where the positions of the two objects are reversed. In Mandarin Chinese, the indi-

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[13] Although *erzi yijia* and *meige ren* can enter into a possessive relation with or without a possessive marker *de* in between, in (39) such a relation is ruled out by the presence of the topic marker *me*.

[14] t is the trace of the verb *gei* and e stands for the NP *mei ren*.

[15] We need not be concerned with the various definitions and implementations of predication proposed by linguists, for instance, in the chapters in Cardinaletti and Guasti (1995).

rect object must precede the direct object, if it is not introduced by a preposition. But in Cantonese, the order is reversed.

(43) a. Deidih bei   mh baak   man   keuih
          dad   gave five hundred dollars him
          'Dad gave him five hundred dollars.'

     b. *Deidih bei keuih mh baak   man
          dad   gave him   five hundred dollars

The direct object in (43a) cannot take a topic marker as the two NPs appearing in such an order is not a small clause in terms of Kayne's (1991, 1993) theory of possessive *have* and *be*, and cannot be regarded as an instance of predication even in a broad or loose sense. What happens if for some reason, e.g. to show contrast, the indirect object must be topicalized? Interestingly, it is forced to adopt the Mandarin word order, preceding the direct object.

(44)   Deidih bei Mingh-jai ne, jauh mh baak   man , Fan-neui ne, jauh
          dad   gave Mingh (m) TOP MOD five hundred dollar Fan (f)   TOP MOD
          yat baak   man
          one hundred dollar
          'Dad gave his son Mingh five hundred dollars and his daughter Fan one hundred.'

In the Wu dialect, represented by Shanghainese, both the Mandarin and Cantonese orders are available.

(45) a. Baba peq ng paq   kue   i
          dad gave five hundred dollar him
          'Dad gave him five hundred dollars.'

     b. Baba peq   i   ng paq   kue
          dad gave him five hundred dollar

Again, a topic marker is found only when the indirect object comes first.

(46) a. Baba peq ngitsy meq, ng pa   kue; noeng   meq, iq paq   kue
          dad gave son TOP five hundred dollar daughter TOP   one hundreds dollar
          'Dad gave his son five hundred dollars and his daughter one hundred.'

     b. *Baba peq ng pa   kue   meq, ngitsy; iq paq   kue   meq, noeng
          dad gave five hundred dollar TOP son   one hundred dollar TOP daughter
          'Dad gave his son five hundred dollars and his daughter one hundred.'

There is a third type of TP-over-VP construction to be discussed shortly in Section 4.3.3.

4.2.3. NP as Complement in TP

An NP can be a comment occurring in the complement position of TP, if it has the property of predication.

It is observed in Tang (1992), etc. that in the following sentences the NP in the form of a numeral plus a classifier has such a property.

(47)   Ta maile bi   san zhi shu   liang ben
        he bought pen three CL book two   CL
        'He bought three pens and two books.'

Arguably, the quantificational expression in (47) is predicative and the NP before it can take topic markers just as the indirect objects in the above examples.

(48)   Ta maile   bi   me, san   zhi shu   me, liang ben
        he bought pen TOP three CL book TOP two   CL

The so-called frequency expression is also said to be predicative. As expected, a topic marker can precede it.

(49)   Wo jianguo neige ren   me, san   ci
        I   saw   that person TOP three times

That the postverbal NP has the property of predication receives the following supporting evidence.

(50) a. Wo jianguo neige ren   me, you san   ci
        I   saw   that person TOP have three times

     b. Wo jianguo neige ren   me, cai   san   ci
        I   saw   that person TOP only three times

The verb *you* may be inserted before *san ci* as in (50a). In (50b) one finds the adverbial *cai*, which usually appears before a verbal expression, not a nominal expression.

    Whether an NP used in this way should be represented as a predicate phrase is not the concern here.

4.3. Specifier of TP

Another property of TPL is that various categories of constituents can play the role of topic. The specifier position of TP is not limited to NPs.

4.3.1. PP as Specifier

It is well-known that a locative expression in the form of a prepositional phrase or post-positional phrase can be topicalized. So is a temporal expression as either PP or NP.

(51)   Huoche shang me chengke   keyi zai   canche   li yongshan
        train   on   TOP passenger may PREP dining-car in dine
        'On the train, passengers can dine in the dining-car.'

The semantic relation between the topic *huoche shang* and another PP *zai canche li* in the comment is a part-whole relation. The latter can be replaced by a proform like *zai nar*

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'there', or by an empty category. Any of these forms, full PP, proform, empty category are common, in topic structures.

The existence of sentences like (51) does not alter the fact that NP is the basic form for the topic.[16] Although both forms in (52) and (53) are acceptable, the preference of a bare NP in (52) and one with the preposition *zai* in (53) is well-known and the contrast is significant.

(52) a. Huayuan li xuduo lao ren   da   taijiquan
        garden in many old people play shadow-boxing
        'In the garden, many old people are playing shadow-boxing.'
     b. Zai huayuan li xuduo lao ren da taijiquan

(53) a. Xuduo lao ren   huayuan li da   taijiquan
        many old people garden in play shadow-boxing
     b. Xuduo lao ren zai huayuan li da   taijiquan

While (52a) is preferable to (52b), (53b) is preferable to (53a). Evidently, an NP is more appropriate in the sentence-initial topic position and a PP more appropriate in the VP-initial adverbial position. But (53a) is perfect when *huayuan li* is interpreted as a topic over VP, when, for instance, a contrast between the garden and another place is intended.

4.3.2. IP as Specifier

It is also well-documented that a clause can be a topic. Recently Gasde and Paul (1996) showed that causal adjunct clauses and conditional clauses are base- generated in Spec of IP. Analysis of conditional clauses as topics dates back to Haiman (1978). But other IPs can be topicalized as well.

(54)   Zhangsan hui   pianren, wo bu xiangxin
        Zhangsan capable cheat   I   not believe
        'That Zhangsan is capable of cheating, I don't believe.'

(55)   Zhangsan hui   pianren, wo bu xiangxin zhezhong shuofa
        Zhangsan capable cheat   I   not believe this   story
        '(Zhangsan is capable of cheating)[17] I don't believe the story.'

(56)   Zhangsan hui   pianren, wo bu xiangxin ta hui zheyang zuo
        Zhangsan capable cheat   I   not believe he will so   do
        '(Zhangsan is capable of cheating) I don't believe he will do so.'

(57)   Zhangsan hui   pianren, wo xiang ta zhi will hong   xiaohar
        Zhangsan capable cheat   I   think he only will hoodwink children
   '(Zhangsan is capable of cheating) I think he can only hoodwink children.'

---

[16]   Some grammarians regard *huoche shang* as an NP rather than a PP.

[17]   Since English does not have a topic structure corresponding to the Chinese sentence, meaning: I don't believe the story that Zhangsan will cheat, we put the topic in brackets in the translation of this and the following sentences. The English translations of the examples may sound acceptable with a pause and rise in intonation. However, they are not on the same status as the Chinese counterparts.

(58)   Zhangsan hui   pianren, xingkui   women zaoyi   you fangbei
        Zhangsan capable cheat   fortunately we   already have precaution
        '(Zhangsan is capable of cheating) fortunately, we have already taken
        precautions.'

In each of the above sentences, the initial clause can be followed by a topic marker and is related to the rest of the sentence in one of the ways summarized in (11). It is most naturally analyzed as a sentential topic in the following configuration.

(59)

```
              TP
           /      \
        Spec       T'
         |        /   \
        IP      T      IP
```
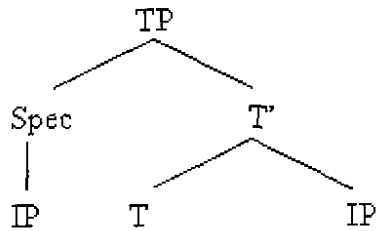
4.3.3. VP as Specifier

A VP can also be a topic sitting above another VP. The following three examples are from three different dialects, Mandarin, Cantonese and Shanghainese respectively.

(60)   Ta zuo shi,   zongshi zuo de yitahutu
        he do things always do RSP messy
        'Whatever he does, he makes a mess of it.'

(61)   Mohng, jauh gam mohng la[18]
        hope   then so   hope SFP
        'Well, that's what we hope.'

(62)   I gong euo   meq, gong veqle
        he speak words TOP speak not
        'He can't speak well.'

This construction is sometimes analyzed as derived by the operation of a verb copying rule, cf. Tai (1989), Hsieh (1992). The term verb copying is not general enough, however, to cover cases where the two verbs involved are not identical.

(63)   Ta shaozai me, buguoshi cao   jidan, zhu baicai
        he cook   TOP merely   scramble eggs boil cabbage
        'As for cooking, he can only scramble eggs and boil cabbage.'

The first VP is more general in meaning and the second one more specific. The two of them are related, again, in a manner described in (11). To reverse the order of the superordinate expression and the hyponymous expression would result in an ungrammatical sentence. It is a typical semantic property of the topic construction.

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[18]   This example is cited from Matthews and Yip (1994: 75).

To summarize, we have shown in Section 4 that in a typical TPL like Chinese other constituents than NP, namely, TP, VP, IP, PP can also take a topic marker and be joined as a topic to another constituent tree to form a TP syntactically and enter into an aboutness relation with the comment semantically.

5. Summary

- Syntactically, a topic construction contains a functional category called Topic Phrase, a configuration with a topic marker as its head, illustrated in (22).
- Semantically, in a topic construction there is an aboutness relation between the topic and the comment, which is a predication or contains a predication. The aboutness relation can be realized in various ways as exemplified and summarized in (11).
- Some languages have a comparatively richer T system than other languages in the same sense as some languages have a comparatively richer AGR system than other languages. Hence the Topic-Prominence Parameter.
- A language is topic-prominent if it has a larger number and variety of topic markers in the Lexicon, and permits a variety of syntactic categories to occur in the specifier position and the complement position of TP.

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Identical Topics in Mandarin Chinese and Shanghainese[*]

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1. Introduction

1.1. Introductory remarks

Identical topic (IT henceforth) was previously known as copying topic (Xu & Liu (1998:141-157). It is fully or partially identical to a corresponding element (CE henceforth) occurring in the following part of the clause. Broadly speaking, IT is semantically empty. Being an unusual type of adding, it properly falls into the central concern of this volume.

It seems IT can be attested in all Chinese dialects, though the phenomena in question have been poorly documented and have scarcely been studied under a unified category. IT seems to be a better candidate to characterise topic prominent languages than many other topic types including the non-gap topic, which has long been called "Chinese style topic" since Chafe (1976) and has been viewed as a major characteristic of topic prominent languages (e.g., Li & Thompson, 1976, Xu & Langendoen 1985, Gasde 1999). I believe the study of IT structure is necessary to obtain a clearer and more complete picture of topic structure in general. As far as I know, Wu dialects of Chinese, including Shanghainese, are the ones which have the richest IT types and the greatest text frequency of IT. Therefore, this study will be based on both Mandarin and Shanghainese data.

In the present paper, I will follow the framework for topic structure developed in Xu & Liu (1998). According to this schema, a topic in topic prominent languages could be not only a discourse element, but also a basic syntactic function; topics can occur in various syntactic levels including the pre-subjective position (main topics), the position between the subject and the predicate (subtopics), and even a still lower position (sub-subtopics); at least four major types of topics can be specified: argument co-indexed topics (gap topics), background-frame topics (nongap topics), copying topics (now re-termed as identical topics) and clausal topics (mostly conditionals), all of which are often syntactically encoded in similar manner, e.g., followed by a topic marker.

Xu & Liu (1998:141-157), and Liu & Xu (1998b) have offered a preliminary description of so-called copying topic structure in Mandarin and Shanghainese. This paper will be a further exploration of IT. I will discuss IT structure in terms of syntax, semantics and discourse functions in turn, especially the semantic relations between IT and argument structure, and referential features of IT. We will attempt to show that IT is a semantically empty element, different from any other topic types. On the other hand, IT prefers unbounded elements, such as generic NPs or VPs without aspect marking. This property relates IT closely to other frame-setting topics (in Gasde's 1999 terms). As a more gen-

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eral proposal, we will argue that some kinds of frame-setting topics such as IT prefer generic elements, while aboutness topics (also Gasde's terms) prefer definite ones, because there is a principle we called the Principle of Frame Being Bigger (PFBB), and generic NPs are "bigger" than specific or definite ones in terms of its referents.

What comes next will be a discussion of the status of IT structure in Chinese. We will show that Chinese not only tends to have definite arguments serving as aboutness topics, but also tends to have generic elements to be located in the topic positions. The latter tendency is stronger in southern dialects than in Mandarin. Chinese (especially in South) often uses two strategies to "coin" a frame from inside the argument structure. One is to split an objective NP into two parts, letting a bare NP serve as a generic topic while leaving the classifier phrase behind the predicate to serve as a specific or definite object. The other is to create a nominal or verbal identical topic to serve as a frame-setting topic.

1.2. A preliminary view of identical topic data

To begin with, let us look at some Mandarin and Shanghainese sentences containing IT. (1) to (9) are small part of the examples in Xu and Liu (1998). I will use (S) to stand for Shanghainese and leave Mandarin unmarked throughout the paper. To save the space, the corresponding element will be glossed as CE.

(1)   **Xingxing** hai shi na ge **xingxing, yueliang** hai shi na ge **yueliang**.
         star   still be that CL CE   moon   still be that CL CE
         'As for star, it remains that star, As for the moon, it remains that moon'

(2)   Ta **zhuren**   dao   ye shi **zhuren**, danshi...
         he *head/director* unexpectedly also be   CE,   but...
         'As for head, he is indeed a head unexpectedly, but...'

(3)   Ta erzi **congming** dao   ting **congming**, jiushi tai cuxin.
         he son smart   unexpectedly quite. CE   but   too careless
         'Saying smart, his son is smart indeed, but is too careless'

(4)   **Qu** jiu **qu**.
         go just CE   'Saying go? It's fine to go'

(5)   (S)   **Phingdeu**-meq **phingdeu** leqweq, kong sageq bangiou.
               illegal-spouse-Top CE   Ptc   say what   friend
               'He/She is exactly an illegal spouse, how can you call him/her a friend'

(6)   (S)   **Si**-meq **si**   jingtsang, **die**-meq   **die** jingtsang.
               water-Top CE insufficient, electricity-Top CE insufficient
               'As for water, it is insufficient; as for electricity, the same is true'

(7)   (S)   **Befaq**   tsung   you **befaq** ho xiang geq.
               Method eventually have CE   can think Ptc
               'As for solution, (we) will eventually be able to find a one'

(8)   (S)   Lo-Wong **niqxing**-zy   tsengge **niqxing** geq.
               Old-Wang warm-hearted-Top/be really   CE   Ptc
               'Old-Wang is really keen in helping others'

(9)　(S)　Khosi **jiqsuq**-aq　　**jiqsuq**-leq.
　　　　　　Exam end-Top/also　CE-Perf　'The exam has / had already ended'

Given IT is really a topic, we can see from the above examples that IT could be a main topic (1, 4,5, 6, 7) or a subtopic (2, 3, 8, 9) while CE can serve as either an argument or a predicate. In addition, CE can function as an adjunct introduced by a preposition as in (10), or as a modifier of an argument with the modifier particle *geq* as in (11):

(10)　　　**Tongshi**-me, ta　**dui**　**tongshi** haishi ting　hao de.
　　　　　　colleague-Top he　towards　CE　　still　quite nice Ptc
　　　　　　'As for colleagues, he is quite nice to them'

(11)　(S)　Bangieu-meq **bangieu-geq ditsy**　　a　luq theq leq
　　　　　　friend-Top　　CE-Gen　address also lose off　Ptc
　　　　　　'As for the friend(s), the address(es) of his/theirs has/have been lost'

In some cases, CE can serve even as another topic, see an analysis on (32b) in 3.2.

IT exists in Old Chinese through now (cf. notes 4 and 6 in Xu & Liu 1998:159) and probably in all Chinese dialects. Here I add a Middle Chinese example (12) from *You Xianku* 'A Tour in the Wonderful Cave', a novel published 1000 years ago, and an early Wu example (13) from *San Xiao* 'Three Smiles', a dialectal novel written about 300 years ago:

(12)　　　**Hao** shi ta jia　**hao, ren**　fei　zhuoyi **ren**
　　　　　　good　be he home　CE person be-not desired CE
　　　　　　'As for being good, his family/home is really good; as for person (himself), this man is not the right one'

(13)　　　(Wu) **Qiqdjuq** suqsing **qiqdjiuq**, khungdjuq suqsing khungdjuq, nang-leq
　　　　　　　　　　Eat　directly　CE　　sleep　　　directly　CE　　why
　　　　　　vene　jia
　　　　　　difficult Ptc
　　　　　　'(You) may choose either to eat or to sleep. Why is it so difficult (to decide)'

1.3.　The status of IT as a topic type

At the first glance, ITs in the examples above appear to greatly vary in terms of syntax and semantics. Why should we uniformly treat them as topics? Tsao (1987) has virtually answered this question in part, though what concerns Tsao is limited to the Mandarin construction known as "verb-copying construction" as in (14):

(14)　　　Ta kan-shu　kan-le　　san-ge　zhongtou
　　　　　　he　read-book　read-ASP　three-CL hour　'He read (books) for three hours'

In the topic system proposed in Xu & Liu (1998), the first VP in (14) belongs to a sub-type of IT. Let me cite a couple of Taso's arguments for its status as a "secondary topic": 1. The first VP in "verb-copying construction" cannot take any aspect marker, and its object is typically non-referential; that makes the VP as a whole (deverbalized into a NP here, according to Tsao) a generic NP. 2. They can all be promoted to be the "primary topic". It is generally true that all the IT types show the features above. In addition, I also

observe that 1. IT can be NP, VP (including AP in Chinese) but not AdvP. This category constraint is shared by topics in general. 2. IT and other topic types share the same set of topic markers; 3. Topic sensitive operators are also sensitive to IT though we identify these operators only in terms of their connection with "normal" topic types. I will demonstrate these features in detail in section 2 and will offer explanations of them in later sections. For the moment, the above evidence seems sufficient to treat IT as a kind of topic.

2. The syntactic categories and morphological features of IT

2.1. The syntactic categories of IT: Neutralization between NP and VP

IT can be an NP as in (1, 2 , 5, 6, 7) above or a VP including AP as in (3, 4, 8, 9,), but cannot be an AdvP. For instance:

(15) (S)   I ganggang-meq ganggang veq qi, (*__muozang__-meq __muozang__ veq qi),
            he before-Top   CE   not go   at-once-Top CE   not go
            __exiq__-meq   __exiq__ veq qi,
            later-time-Top CE not go
            'He didn't go before. Nor will he go at once or later'

__ganggang__ 'a short time ago', __exiq__ 'a later time' and __muozang__ 'at once' in (15) are all temporal adjuncts, but only __muozang__ is kept from occurring as IT because it is a temporal adverb instead of a noun. This limitation on word classes is consistent with the case with Chinese topics in general (cf. Xu & Liu 1998:108-111).

In the IT position, interestingly, distinction between NPs and VPs becomes insignificant or even are neutralized. Compare (22) and (23) below:

(16) (S) a. I __die'ing__-meq __die'ing__ veq hoexi, __tsaq ziangdji__-meq __tsaq ziandji__ veq hoexi.
            he movies-Top   CE   not like, play Chinese-chess-Top CE   not like
            'He doesn't like movies. Nor does he like playing Chinese chess'

         b. Geq dio djungtsy __liotsuq__-meq __liotsuq__ me ho, __phioliang__-meq a me __phioliang__.
            this CL skirt   fabric-Top   CE   quite good, pretty-Top also quite CE
            'This skirt is made of good fabric and also looks quite pretty'

Parallelisms in the fashion of (16) are usually required to be structurally harmonic. Note here that the first clause in each parallelism contains a nominal IT and the last one a verbal IT. Furthermore, we can freely replace the NP __die'ing__ 'movies' with a VP __khoe die'ing__ 'watch movies' or replace the VP __tsaq ziangdji__ 'play Chinese chess' with the NP __ziangdji__ 'Chinese chess' in (16a) at no cost of semantic and even pragmatic changes. Also note (12) above, taken from Middle Chinese, which is a similar instance in this respect. We shall explain the neutralization in 4.4.

2.2. Marking of IT: pauses, topic markers and topic-sensitive operators

Every IT can be followed by an optional pause, like other topic types. There are some factors affecting the occurrence of pause after IT and topics in general. Normally, the main topic is more likely to be followed by a pause than a subtopic, and a heavy topic is

more likely to be followed by a pause than a light topic. In any case, however, the pause is not obligatory for IT as illustrated by the above examples of IT.

Like intonation pitch or emphasizing stress, pause can serve as a kind of discourse means. It can, for instance, mark a special peripheral position serving a certain discourse function such as topicalization. As syntactic means, pause is only in a relatively low degree of grammaticalization. In Chinese, IT does not always rely on pause. It means that IT is not just a pragmatic constituent, but has obtained a sort of syntactic status. Furthermore, since it seems harder for a discourse topic to "insert" between the subject and the predicate without pause, and Chinese IT does often occur as a subtopic without pause, it becomes clearer that IT in Chinese does exhibit strong syntactic nature. In other words, IT has been highly grammaticalized or syntacticized.

Compared with pause, topic markers are means of more grammatical nature. By "topic markers" we refer to function morphemes attached directly to topics, following them as in Chinese, Japanese, Korean and many Tibeto-Burman languages (cf. Xu & Liu 1998), or preceding them as in Tagalog (cf. Shibatani 1991), or, as a circumfix, surrounding them, as in Bunun (cf. Cheng 1991). If a topic introduced by a topic marker does not need to be followed by pause, then this kind of marking should be more grammaticalized than those that are always accompanied by pause. IT is often marked with a topic marker, as in (5), (6) and (8)-(11), all of which also apply to other topic types. In addition, topic markers attached to IT need no pause, as shown in (5), (6), (8) and (9). It again verifies the syntactic nature of IT.

Besides topic markers, topic sensitive operators (TSO) play crucial roles in IT structure as well. Before proceeding with IT, let us take a brief look at TSO in Chinese.

TSOs are independent words (mostly adverbs), the occurrence of which is closely relevant to a topic in the same clause in a certain way. There are two classes of TSOs. One can be called **topic indicator**, which always co-occurs with a topic (in general, not only IT), usually following the topic but sometimes can be separated with it by other elements like *zuotian* 'Yesterday' in (17) below. In other words, whenever there exists a topic indicator, there will be a topic existing. Compare:

(17)   a. Zhe ge xiaohair zuotian bing le.
           this CL child   yesterday be-ill Ptc   'This child was ill yesterday'

        b. Zhe ge xiaohair zuotian **haishi**   bing le.
           this CL child yesterday evetually be-ill Ptc
           'This child was ill evetually yesterday'

        c. Yi   ge xiaohair zuotian bing le.
           a/one CL child   yesterday be-ill Ptc 'A child was ill yesterday'

        d ??Yi ge xiaohair zuotian **haishi**   bing le.
           a/one CL young person still/after-all loss-election Ptc
           'A child was ill eventually yesterday'

Haishi 'still, eventually' is a TSO. The indefinite subject *yi ge xiaohair* 'a child' in (17d) cannot function as a topic in Chinese, so *haishi* cannot co-occur with this nontopical subject, though the indefinite subject itself is acceptable as shown in (17c). In view of their persistent co-occurrence with topics, we may regard topic indicators as indirect markers for topics. Following are some other topic indicators in Mandarin: *hai* 'still, yet', *ye* 'also; even', *dao* 'unexpectedly, actually', *dou* 'all; even'. Due to the close con-

nection with topics, topic indicators can even become real topic markers through re-analysis, as is the case with Shanghainese *to* (= Mandarin *dao*) 'unexpectedly'. Compare:

(18) (S) a. Lo Uong , **to** me khexing.
Lo Uong, unexpectedly quite happy
'As for Old Wang, he is actually quite happy'
b. Lo Uong-**to**, me khexing.
Lo Uong-unexpectedly/Top quite happy
'As for Old Wang, actually, he is quite happy'

When there is pause after a topic, *to* as an adverb should follow the pause, as in (18a). Interestingly, however, *to* can also precede the pause, as in (18b). In the latter case, *to* has actually been out of the domain of the following VP and has become a topic marker, i.e. the head of the TP (topic phrase) projection, patterning with other topic markers. The same re-analysis also takes place with *a* (=Mandarin *ye*) 'also' (see Xu & Liu 1998:103-104). In other words, they have been grammaticalized from indirect topic markers into direct ones.

The other class of TSO is the **topic licenser**. A topic licenser does not always co-occur with a topic, but in many cases it licenses a topic in a clause, and to delete it will make the clause ungrammatical. Topic licensers in Mandarin include negatives *bu* 'not' and *mei(you)* 'haven't, didn't', multi-functional adverb *jiu* 'only, just, soon, immediately, as early as, firmly', *pian* 'against normal way or others' will'. Compare the following Mandarin examples:

(19) a. Ta baijiu **bu** he.
he white-liquor not drink 'As for (strong) white liquor, he doesn't drink it.

b. ??Ta baijiu he.
he white-liquor drink 'As for (strong) white liquor, he drinks it '

c. Ta he baijiu.
he drink (strong) white liquor 'He drinks (strong) white liquor'

(20) a. Ta weixian-de shiqing *(**jiu/pian**) ai zuo
he dangerous-Modi matter/thing just like do
'As for dangerous things, he just likes to do them'

b. Ta ai zuo weixian-de shiqing.
he like do dangerous-Mod matter/thing 'He likes to do dangerous things'

Now we go back to IT. Topic markers are not obligatory, especially in Mandarin, cf. (1)-(4). On the other hand, in most cases Mandarin IT goes along with TSO. Rechecking all of the 11 Mandarin IT examples in Xu & Liu (1998a:142-143), I found 8 of them contain topic indicators, 2 of the rest contain topic licensers, and only one example, which belongs to the so-called verb copying construction, contains no TSO. If we delete the TSOs in Mandarin IT sentences, most sentences will become ill-formed, as with the case in (1-4) above.

Mandarin IT can also be followed by a topic marker. Whether or not a topic marker is employed basically does not affect the acceptability of a clause containing IT. It is TSO that plays more crucial role than topic markers or pause in Mandarin IT structure.

The Shanghainese case is somewhat different. As shown in Xu & Liu (1998), Shanghainese IT structure has wider semantic range, more syntactic variations, more discourse functions and greater text frequency. While TSO is too a positive factor in comprising an IT construction, in many cases a topic marker can go well without TSO to license an IT in a clause. For instance:

(21) (S) a. Phingdeu-**meq** phingdeu leq-weq, kong sageq bangiou. (= 5)
          illegal-spouse-Top CE   Ptc   say what friend
          ' he/she is exactly an illegal spouse, how can you call him/her a friend.'

        b. I khexing-**meq** khexing teqle
           he happy-Top CE   so   'He is so happy'

Both (21a) and (21b) have the topic marker *meq* after the IT, but contain no TSO. Sentences like these have no exact counterparts in Mandarin. In addition, as mentioned above, some Shanghainese TSOs have been re-analysed as post-topic markers, hence their role in licensing IT has been integrated into the topic marker system in Shanghainese.

There is one more difference between Mandarin and Shanghainese regarding the occurrence of pause after a topic marker. Mandarin is more likely to have a pause after a topic marker for IT or the topic in general than Shanghainese.

All of these facts show that IT in Shanghainese is in a higher degree of grammaticalization than IT in Mandarin in that the former needs less pragmatic motivations indicated by TSO and less discourse means such as pause. This situation coincides with the fact that topics in general is more syntacticized in Shanghainese than in Mandarin.

2.3. The marking of reference and aspect for IT

Li & Thompson (1981:447) observe that in the so-called verb-copying construction the direct object of the first verb is typically nonreferential. Similarly, Tsao (1987:17) points out that the first verb in the construction in question does not take any aspect markers. Tsao also believe that the VP consisting of the aspectless verb and the nonreferential object has been nominalized into a generic NP in the "secondary topic position". Leaving Tsao's nominalization analysis aside, their findings apply to IT in general. In short, IT contains no referential encoding for nominal elements and no aspect marking for verbal elements (There is no pure tense marking in Chinese). In other words, IT prefers bare NPs and bare VPs. CE, on the other hand, is free of such constraints. Below are some examples of nominal IT, which are beyond Li & Thomson's and Tsao's concerns:

(22).   a. Ta (*yi **ge** /*zhe **ge**) zhuren   dao   shi **yi ge** zhuren.
           he   a CL this CL director unexpectedly be one CL CE
       lit.   'As for head(s), he is a head actually'

        b. Ta (*yi **suo**/*zhe **suo**) daxue- me   ye shang-le   **zhe suo** daxue.
           he   a CL   this CL university-Top also study-in-Perf this CL CE
       lit.   'As for university, he also studies in this university'

No matter whether CE is indefinite as in (30) or definite as in (31), IT should be bare NPs. Now let's turn to verbal IT:

(23) a. Ta daying   dao   daying-le san   ci.
         he promise unexpectedly CE   Perf three time
         'He has promised three times indeed'

      b. *Ta daying-le   san   ci   dao   daying-le san   ci.
         he promise-Perf three times unexpectedly CE-Perf three time
         'He actually has promised three times'

      c. *Ta daying-le   dao   daying-le san ci.
         he promise-Perf unexpectedly CE-Perf three time
         'He actually has promised three times'

(24)   Zhan(*zhe)-me wo ye   zhan-zhe.
         stand(-Dur)-Top I also CE-Dur 'I was/am also standing indeed'

(23) and (24) illustrate that IT cannot take any aspect markers (either perfective or durational) even if the marker in question occurs in CE.

What underlies the inhibition of IT from reference encoding or aspect marking will be accounted for in section 4.3.

3. The syntactic position and ordering of IT

3.1. IT as main topics and subtopics

As previously mentioned, IT in Chinese can appear in various syntactic levels, serving as main topic or as subtopic. For example:

(25)   **Shan**   yi   bu shi na zuo **shan.**
         mountain already not be that CL   CE
         ' As for the mountain, it is no longer that mountain'

(26) a. (congqian) (zai shuxuexi) **Zhuren**   ta ye dang-guo   **zhuren.**
         previously at math-Dept. head/director he also serve-as-Exper CE
         ' He used to serve as a head (in the Department of Mathematics)'

      b. Ta **Zhuren**   ye dang-guo **zhuren.**
         he head/director also serve-as-Exper   CE.
         ' He used to serve as a head'

      c. **Dang**   ta ye **dang-**guo zhuren.
         serve-as he also CE-Exper head/director
         ' He used to serve as a head'

      d. Ta **dang**   ye **dang-**guo zhuren.
         He serve-as also CE-Exper head/director
         ' He used to serve as a head'

(25) is a clause where there is IT but no subject. This IT is a main topic preceding the predicate. (26) contains a group of largely synonymic sentences, but the position these ITs take varies. In (26a) IT is a main topic in the pre-subjective position. It can either take

the sentence-initial position or follow one or more temporal and/or spatial elements. The presence or absence of spatial / temporal elements will not affect the status of IT in (26a) as a main topic because there can be more than one topics in one syntactic level in our topic schema (cf. Xu & Liu 1998:51-56). In (26b) IT is a nominal subtopic. In (26c, d), we see verbal ITs serving as a main topic and a subtopic respectively.

IT also occurs in dependent clauses, mostly resultative clauses. The distinction between main topics and subtopic remains valid here, though verbal IT predominantly functions as subtopic in this level as shown in (27) below. IT as a nominal main topic in dependent clauses are permitted basically only in Shanghainese as in (28) below:

(27)   a. Ta zui   de   **zhan** dou   **zhan** bu   qi.
             he drunk so-that   stand even   CE   not   up
             'He was so drunk as to be unable to stand up at all'

          b. Wo guyi   xie de   ta **kan** ye **kan** bu chu.
             I intentionally write so-that he see   also CE not out
             'I intentionally wrote it (in such a way) that he cannot even read it.

(28) (S)   I   tse   teqle   **ning**-meq   **ning** a   liq   veq qi.
            he drunk so-that person/body-Top CE   also/even stand not   up
            'He was so drunk as to be unable to make his body stand up at all'

3.2. The syntactic distance between IT and CE

The distance between IT and CE ranges in a great scale, from zero (neighboring immediately) to a long distance across several clause boundaries. (29) and (30) illustrate both extremes respectively:

(29) (S) a. **Sy**   sy mmeq,   **Die**   **die** mmeq,   **meqi meqi**   mmeq.
             water CE not-have electricity CE   not-have gas   CE   not-have
             'As for water, it's unavailable, and the same is true for electricity and gas'

          b. I   **lozeq**   **lozeq** geq.
             he   simple/honest   CE   Ptc   'He is really simple and honest'

(30) (S) a. **Iaq**-meq   nung ezy io   qing   isang   khe   iq   tsang fongtsy
             medicine-Top you still should request doctor prescribe one CL   prescription
             phe nge   **iaq**   le   qiq
             buy some   CE come   eat
             'As for medicines, you still should request the doctor to give you a prescription and then buy some back to take'

          b. **Tsytsang** nguo thing kong tshangtsang ijing   jio   Xio   Wong   pha
             paper   I   hear   say factory-head   already   ask   little Wang send
             liang   geq kungning qi   ma   iqnge **tsytsang** uele.
             Several CL   worker   go buy   some   CE   back.
             'As for paper, I heard somebody said that the head of the factory had asked Little Wang to send several workers to buy some back.'

In (29a), IT is a main topic and its CE immediately follows it. In (29b), IT is a subtopic and its CE directly follows it too. In (30a), IT is a main topic in the matrix clause while CE occurs in a complemental embedded clause which is several levels lower than the matrix one. The distance between IT and CE crosses several clause boundaries.

With all the flexibility for distance between IT and CE, there are many cases which seem to require immediate adjacency between IT and CE.

When IT occurs in each clause of a co-ordinate sentence in parallel form, adjacency between IT and CE is desired as in (31).

(31) (S) **si si** jingtsang, **die** **die** jingtsang (, **meqi meqi** jingtsang).
water CE insufficient, electricity CE insufficient gas CE insufficient
'As for water, it is insufficient, and as for electricity (and gas), the same is true'

This requirement leads further to an extremely interesting type of IT where CE itself functions as a kind of topic. Compare:

(32) (S) a. I ueteq so ve, a uedeq da izong.
he can cook rice also can wash clothes
'He is capable of cooking meals as well as washing clothes'

b. I **ve**-meq **ve** ueteq so, **izong**-meq **izong** ueteq da.
he rice-Top CE can cook clothes-Top CE can wash
'He is capable of both cooking meals and washing clothes'

c. *I ve-meq ueteq so ve, izong meq uiteq da izong.
'(he) rice-Top can cook CE clothes Top can wash CE'

(32a) stands for the canonical VO pattern in Chinese. In (32b), each clause has IT as a subtopic, which takes the original object as its CE. As CE, original objects must now precede the governing verb and can no longer follow the verb, as the unacceptablity of (32c) shows. According to our topic schema (Xu & Liu 1998), the position CE takes in (32b) should be that for a subtopic, too. Hence, we have both IT and CE occurring as subtopics.

This analysis, how strange it sounds, is not surprising for Chinese. As Gasde (1999) suggests, there are two types of topics which serve different semantic and pragmatic functions. One is frame-setting topic and the other is aboutness topic. If they co-occur, the former always precedes the latter and is in a more external position. Adopting this taxonomy, we may claim that when both IT and CE are topics, IT is a frame-setter and CE an aboutness topic[1].

Verbal IT is another kind of IT which prefers to be close to CE, though in a less rigid fashion. Compare (33a) with (33b):

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[1] In Gasde's schema, frame-setting topics should be IP-external and should not follow the subject of the clause. Accordingly ITs in (32b) could not be frame-setters. However, it is hard to treat ITs as aboutness topics. In Section 4.3, we will see more properties IT shares with other frame-setters. Reasons for the frame-setter analysis are given also in 6.2.

(33) (S) a. Geqtaq-geq meqzy **ju**-meq **ju** teqle.
        here-Modi stuff/goods expensive-Top CE so
        'Goods here are so expensive'

      b. Geqtaq-geq meqzy **ju**-meq lotso zengkuong *(a) **ju** teqle.
        here-Modi stuff/goods expensive-Top early time also CE so
        'Goods here were very expensive in the past, too'

In (33a), IT and CE (*ju*, 'expensive') are immediately neighboring. If one inserts a tempo-ral adverbial between IT and CE as in (33b), the sentence will be ill-formed unless an topic sensitive operator such as *a* 'also' is added in. The contrast between (33a) and (33b) conforms with the fact that verbal IT strongly prefers the subtopic position, one that is closer to CE than a main topic to CE. In fact, in my data gathered from Old Chinese, Mandarin Chinese and its dialects, almost all the attested examples containing a subject and a verbal IT are the case where IT serves as a subtopic as in (34a), though the rarely attested pattern, i.e. verbal IT occurring pre-subjectively, is acceptable as in (34b), thus it is marked.

(34)   a. Ta **dang** ye **dang** guo zhuren. (=26d)
          he serve-as also CE-Exper head/director
          'He used to serve as a head'

        b. **Dang** ta ye **dang**-guo zhuren. (=26c)
          serve-as he also CE-Exper head/director
          'He used to serve as a head'

Before studying this issue in more depth, we can now get a preliminary impression: while the distance between IT and CE ranges in a big scale, some types of IT structure tend to have IT and CE located closely. A long-distance IT-CE construction usually needs more conditions such as TSOs to be well-formed, and that kind of structure sounds more marked. The default position for verbal IT is that of subtopic.

4.   The semantic properties of IT

4.1.   Introductory remark

Various subtypes of IT are not always consistent with one another in respect to their se-mantics. Yet they have something in common semantically, which makes them to appear like neither arguments nor predicates. In other words, IT is almost semantically unique compared with other components in a clause.

This section will examine the semantic status of IT relative to argument structure and its nature of referentiality. For convenience, I will use **semantic role(s)** as a cover term to refer to both thematic role(s) and the semantic role of the predicate.

4.2.   The semantic emptiness of IT

As NP or VP, IT does add a meaningful entity to the clause physically. In most cases, however, IT does not change the argument structure at all. Nor does it bring in any se-mantic content for the clause. So its semantic contribution to the sentence meaning dif-fers from either arguments or adjuncts. In addition, IT cannot be the predicate itself.

When IT is verbal, usually its CE instead of IT will function as a predicate in a certain syntactic level. Furthermore, since IT and CE are fully or partially identical, only one of them is needed for the clause meaning. Everything shows that it is CE that serves a "normal syntactic function" and plays certain semantic role in the clause. Then, we have to state, maybe strangely, that the contribution of IT to the clause meaning is virtually zero, and IT is semantically empty (Note that here it is physically substantial but semantically empty, whereas an "empty category" is physically empty but semantically meaningful). Semantic emptiness makes IT outstanding from other topic types, though in many respects IT really has much in common with them.

Now let us turn to some concrete observations supporting my claim for the semantic emptiness of IT. There are some complicated situations, which I will attribute to a continuum of grammaticalization.

4.2.1. The position for role assignment

CE occupies a syntactic position which assigns it a theta role, like other constituents occupying the same position, or serves as the predicate. For instance:

(35)   **Xiangyan-**me wo yiqian   ye   chou-guo   **xiangyan.**
        cigarette-Top I previously also smoke-Exper CE
        'As for cigarettes, I used to smoke them too'

(36)   **Xiao-Wang-**me wo yijing   gei le   **Xiao-Wang**   yi zhang piao   le.
        Little-Wang-Top I   already give Perf CE   one/a CL   ticket Ptc
        'As for Little-Wang, I have given him a ticket'

(37)   a. **Tiaowu-**me wo yiqian   ye xihuan **tiaowu.**
           dance-Top I   previously also like dance
           'As for dance, I used to like it too'

        b. **Tiaowu-**me, wo yiqian   ye jingchang **tiaowu.**
           dance-Top I   previously also often   CE
           'As for dancing, I used to do it frequently too'

The syntactic positions of CEs show that *xiangyan* 'cigarette' in (35) is a patient while *Xiao-Wang* in (36) is a recipient. Also one can judge from the position of CE that *tiaowu* 'dance' is the theme of the verb *xihuan* 'like' in (37a) while it is the predicate in (37b). The positions of IT, by contrast, offer no clue to their semantic roles because they are all the same in the above examples. Thus it is reasonable to assume that CE rather than IT plays the semantic role. IT is then left empty semantically.

4.2.2. The semantic impact of negatives on the clause meaning

It is quite natural that the addition of a negative on CE will definitely change the meaning of a clause, or to be more accurate, the truth condition of a clause. In contrast, surprisingly, negatives on IT are often optional, in other words, the presence or absence of a negative may not change the truth condition for a clause. For instance:

(38)   a. Ta **canjia** ye **canjia** huiyi,   (danshi bu hui tijiao lunwen).
           he attend also CE   meeting (but   not will submit paper)
           'He actually will also attend the conference, (but will not submit a paper)'

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      b. Ta **canjia** ye **bu canjia** huiyi,   (danshi hui tijiao lunwen).
         he attend also not CE   meeting (but   will submit paper)
         'He actually will not attend the conference, (but will submit a paper)'

      c. Ta **bu canjia** ye **bu canjia** huiyi,   (danshi hui tijiao lunwen).
         he not attend also not CE   meeting (but   will submit paper)
         'He actually will not attend the conference, (but will submit a paper)'

Note the first clause of each examples above. By adding the negative *bu* 'not' on CE in (38a), one gets (38b), and its meaning is opposite to that of (38a). By going further to add the negative on IT in (38b), one gets (38c), and its meaning remains the same as that of (38b)[2]. The above results can be formulated as follows:

(39)   a. Neg + VP (as CE) $\neq$ VP (as CE)
         b. Neg + VP (as IT) = VP (as IT)

(39) could be stronger evidence for the emptiness of IT. No meaningful constituent would remain semantically unchanged despite negation.

4.2.3. The omission of IT and CE

Generally every IT are omissible and the omission will change neither the grammaticality nor the semantic meaning of the clause, though the omission will cause a syntactic change from topic structure into nontopic structure. There are some complicated situations that will be accounted for in 4.2.4. In fact if we want to translate Chinese sentences containing ITs we would better delete all the ITs to get more natural sentences in target languages of no IT structure, though in our gloss, we often translate ITs in the form of 'as for IT' to be as loyal to the source sentences as possible.

    How about CE then?

    If CE is an argument, it usually can be deleted too. In so doing, one has in fact turned IT into another type of topic, i.e., the so-called gap topic. Compare:

(40)   a. **Xiangyan**-me wo yiqian   ye chou-guo xiangyan. (= 35)
         cigarette-Top I previously also smoke-Exper CE
         'As for cigarettes, I used to smoke them too'
      b. **Xiangyan**$_i$-me wo yiqian   ye chou-guo [$_i$] .

According to the current theory one may claim that there is a gap or trace in (52b) , but if IT is deleted, no one will argue for a gap, as in (41)

(41) a. [?$_i$] Wo yiqian   ye chou   guo xiangyan$_i$.
        I   previously also smoke Exper cigarette
        'I used to smoke too'

Since the IT position receives no theta role and is semantically empty, its omission causes no feeling of any gap in intuition.

    When CE is the predicate, the omission of CE is absolutely prevented. For instance:

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[2]   Although (38c) is acceptable, it sounds marked and is less likely to be attested in text than (38b), because the negative is kind of bounding means and ITs prefer to be unbounded.

(42)   Chou me   wo yiqian   ye *(chou-guo) xiangyan.
         smoke Top I previously also CE-Exper   cigarette.
         'I used to smoke, too'

The predicative CE again reminds us of the asymmetry between IT and CE, that is that ITs are optional while CEs are obligatory. It proves that the former is semantically empty.

4.2.4. From conditional IT to morphological IT: a continuum of grammaticalization

It is true that not every type of IT is semantically empty in the same degree. We do see diversity among IT types in terms of semantic status. The diversity may reflect a continuum of grammaticalization from discourse to syntax and then to morphology.

The starting point for the grammaticalization of IT, and of many other topic types, is the conditional. In some cases IT can be analyzed as reduced conditional clauses. One such example is (4), repeated below:

(43)   Qu jiu   qu.
         go just   go
         '(saying go?/ If you ask me to go,) It is fine to go'

We can make the conditional meaning more evident by adding a co-ordinate clause:

(44)   Qu jiu   qu, bu qu jiu   bu qu.
         go just   go, not go just not go
         'If you want (me/us) to go, it's fine; If you want (me/us) not to go, it's fine too'

In certain contexts, NPs can also function this way:

(45)   A: Zher zhi you   miantiao, meiyou   mifan.
            Here only have noodle   not-have rice
            'There are only noodles here, no rice'
         B: Miantiao jiu miantiao.
            noodle   just noodle
            '(Saying noodles?/ If only having noodles) Noodles are OK'

Conditionals are inherent topics in a sense, especially for preceding conditionals (cf. Haiman 1978, Ford & Thompson 1986, Schfffrin 1992). Chinese conditionals can be viewed as topics even in the syntactic level (cf. Gasde & Paul 1994, Xu & Liu 1998: 237-250). So it is not surprising for a reduced conditional to serve as IT. In the meantime, however, it is somewhat difficult to say that conditional ITs are semantically empty, though the omission of a conditional IT does not affect the sentence meaning as much as that of a full conditional clause. Furthermore, there is no optional negation for conditional IT, and the polarity must be kept consistent between IT and CE), c.f. (46):

(46)   qu jiu   qu / bu qu jiu   bu qu / *qu jiu bu qu / *bu qu jiu qu.
         go just go / not go just not go / go just not go   not go just go

It means the degree to which these conditional ITs are grammaticalized is relatively low. On the other hand, many IT types which are more grammaticalized may be traced to their

conditional origin. For lots of IT examples present in the paper, which are obviously empty and omissible, we may have alternative gloss closer to the conditional meaning. For example:

(47)   **Xiangyan**-me wo yiqian   ye chou guo **xiangyan**. (=35)
            cigarette-Top I previously also smoke Exper CE
            Previous gloss: 'As for cigarettes, I used to smoke them too'
            Alternative: 'If saying cigarettes, I used to smoke them too'

Both glosses are fine, though English speakers may feel less comfortable with the latter. When IT appears as a subtopic, a more grammaticalized position, to gloss it as a conditional seems to be a little bit harder:

(48)   a. Wo **xiangyan**-me yiqian   ye chou guo **xiangyan**.
           I   cigarette-Top previously also smoke Exp CE
           'As for cigarettes, I used to smoke them too'
           ?'If saying cigarette, I used to smoke them too'

So I assume that there is a continuum of grammaticalization, i.e. from conditional clauses to (reduced) conditional IT and then to syntactic IT. It is thus reasonable that types of IT are semantically empty in varied degree.

In fact, some IT types in Shanghainese have gone farther along this pathway. They have become something which can hardly be viewed as syntactic components but rather as morphological morphemes of CE. They are the emptiest semantically, so to say. Recall (8) and (9), repeated below:

(49)   (S) Lo-Wong **niq(xing)**-zy   tsengge **niqxing** ge. (=8)
           Old-Wang warm-hearted-Top/be really   CE   Ptc
           'Old Wang is really keen in helping others'

(50)   (S) khosi **jiq(suq)**-aq   **jiqsuq** leq. (=9)
           Exam end-Top/also CE   Ptc
           'The exam has/had already ended'

Note that we add a bracket in each example this time. It is to show that the first syllable of IT here, though a nonword morpheme or even a meaningless syllable, can stand alone as IT. This fact strongly hints that this type of IT constructions is closer in nature to morphology than to syntax. A nonword syllable alone is not supposed to occupies a syntactic position. On the other hand, CE can never be shortened like ITs in (49-50). When one cut short CE this way, the result will be absolutely ungrammatical as shown in (51):

(51)   (S) Lo-Wong **niqxing**-zy   tsengge **niq*(xing)** ge. (←49)
           Old-Wang warm-hearted-Top/be really   CE   Ptc
           'Old Wang is really keen in helping others'

Consistent with their nonword status, ITs in (49-50), can scarcely be glossed with 'as for...', because they have lost much of their topical role. IT and CE together, e.g., *niq(xin)* ...*niqxin* in (49) can be analysed as something like a morphological variant of the verb *niqxin* 'warm-hearted'. However, in some aspects, they maintain their characters as topics. They not only carry typical topic markers, but also syntactically behave like other

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topics carrying topic markers. As noted in Xu & Liu (1998:113), constituents with topic markers cannot occur in relative clause. The same is true for ITs in (49-50). Chinese adjectives are predicative and behave like a kind of intransitive verbs, hence any AP modifying a noun is virtually a relative clause. Keep this in mind, then compare (49) above with (52) below:

(52) (S) a. iq geq niqxing-geq   ning
             one CL warm-hearted-Modi person
             'a warm-herated person / a person who is warm-herated'

      b. iq geq **tsenggeq niqxing-geq** ning
          one CL really   warm-hearted-Modi person
          ' a person who is really warm-hearted'

      c. *iq geq **niqxing-zy**   **tsenggeq niqxing**-geq ning
          one CL warm-heated-Top really   CE   Modi person

Either the adjective *niqxing* or the AP headed by *niqxing* can be a relative clause, as in (52a, b); but when we expand this AP into the IT construction of (49), it can no longer serve as a relative clause. Its nature of being a topic is responsible for this. That is why we still include this kind of IT in our IT system.

To sum up, we propose (53) as a major pathway for the grammaticalization of IT. It might account for at least most types of IT:

(53)   **conditional clause > conditional IT > syntactic IT > morphological IT**

Since Chinese topics in general can be syntacticalized to a great extent and are rich in type, some IT types might have undergone their own pathways of grammaticalization which is similar to, but not the same with (53).

The particular process demonstrated in (53), though seldom touched on in the literature, is in fact a normal instance of grammaticalization. Hopper & Traugott (1993:95) describe a main pathway of grammaticalization as "**lexical item** used **in** specific linguistic **contexts > syntax > morphology**". Comrie (1988:266) points out that "many syntactic phenomena can be viewed as phenomena semantic and/or pragmatic in origin which have become divorced from their semantico-pragmatic origin, in other words as instances of the grammaticalization (or, more accurately, syntacticization) of semantic-pragmatic phenomena." Bringing these ideas together, a general model for grammaticalization could be in the form of "**semantics/pragmatics > syntax > morphology**". The development from conditionals to syntactic IT in Chinese reflects the first stage of the process, i.e., "**pragmatics > syntax**", with conditional IT as a intermediate phase. The further change from syntactic IT to morphological IT in Shanghainese reflects the second stage, i.e., **syntax > morphology**.

4.3. The referentiality of IT as a sub-type of frame-setting topics

4.3.1. Unboundedness for both nominal and verbal ITs

The referentiality of a nominal phrase on one side, and the tense and aspect (especially aspect for Chinese, a language without no tense system) of a verbal phrase on the other side, are similar phenomena in essence from the perspective of a higher conceptual level,

both serving as an index to help hearers build connection between linguistic elements in the sentence and their counterparts in the real-time world. For convenience, I will discuss both sides under the same term, i.e., referentiality.

In the following parts of 4.3, I will explain why IT usually contains no referential encoding for nominal elements and no aspect marking for verbal elements, as described in 2.3. I will show that underlying this fact is an overwhelming tendency for IT, that is being unbounded. For nominal, being unbounded means being generic, often encoded as bare NPs, while for verbal, being unbounded means being tenseless and aspectless, i.e., as "bare" VPs. This tendency arises from a basic nature of Chinese topics, i.e., frame-setters. Something can become a frame for another thing only if the former is "bigger" or "broader" than the latter. This condition has some variations, depending on the types of topics. For IT, the best way to being bigger or broader is to be unbounded.

4.3.2. Frame-setters and the Principle of Frame Being Bigger (PFBB)

Since Chafe (1976), many linguists agree that in languages like Chinese, a basic role for topics to play is to "set a spatial, temporal or individual framework within which the main predication holds". Advancing from this basis, Gasde (1999) proposes a more clear-cut taxonomy, which divides topics into two categories: **frame-setting topics** and **aboutness topics**. His frame-setting topics include the following subtypes: spatial topics, temporal topics, Chinese-style topics (non-gap topics) and its German counterparts, i.e. so-called "free themes", PP individual frames, conditionals.

Checking all the sub-types Gasde identifies, one can observe that they share a common property, which is that **frames are always bigger or broader than the "content" the frames contain**, i.e., the events, states or propositions indicated by the following predications, or, in particular, the elements semantically relevant to topics. For instance, when somebody says "In China, Heinrich speaks Chinese", it means as far as this sentence is concerned, the space where Heinrich speaks Chinese is within China and must be smaller than China because he is unable to go to every corner in China. This is a locative frame-setting topic (≠ a locative adjunct, according to Gasde). The temporal ones are in the similar situation. Let's consider individual frames, which look less transparent. When one says "For Flitz, the world is too big", can we then state that the proposition "the world is too big" is smaller than "Flitz"? Yes. The proposition is effective only within Flitz's conceptual world. Since there are also many other ideas and beliefs exiting in his mind, the proposition alone is smaller than Flitz as a whole. A more tricky case may be the conditional topic. When one says "If you go, I'll go", does the former clause tells something bigger than what the latter tells? Yes. The former denotes a free, "unbound" event, which covers more possibilities, both taking place and not taking place. In contrast, the latter is a bound variable, totally depending on whether the former takes place. In this sense, it is indeed smaller than the former.

Based on the above discussion, I propose a principle, which can be called the "Principle of Frame Being Bigger" (PFBB). The relation of being "bigger" vs. "smaller" means a super-set vs. sub-set, whole vs. part, or an effective domain vs. proposition, and so forth.

4.3.3. Applications of PFBB for various topic types

Our previous study of topic structure (Xu & Liu 1998) has implicitly touched on the fact that topics are often bigger than the relevant elements in their comments, though we didn't distinguish frame-setting topics from aboutness topics. Before discussing the referentiality of IT, let's take a brief review on how PFBB applies to various topic types other than IT. We will clearly see then how IT follows PFBB in a way, too.

Xu & Liu (1998:68-75) point out that an unexchangeable relation of super-set vs. sub-set or whole vs. part persistently exits between a topic and its semantically related element, if any, in the comment no matter whether the topic is nominal, locative, temporal, verbal or clausal. The following examples are all taken from there:

(54)   a. **Shuiguo**, wo zui xihuan **pingguo**.
          fruit   I   most like   apple   'Among fruits, I like apples most'
      b. *****Pingguo**, wo zui xihuan **shuiguo**.
          apple   I   most like   fruit

(55)   a. **Huoche**-shang, chengke keyi zai   **canche**-li yong can.
          train   on   passenger may at dining-couch-in use meal.
          'In train, passengers can have their meals in the dining coach'
      b. *****Canche**-li, chengke zai **huoche**-shang keyi yong can.
          dining-couch in passenger at   train   on may use meal

(56)   a. **Mingtian xiawu**,   wo **san dianzhong** zai bangongshi deng ni.
          Tomorrow afternoon I three o'clock   at   office   wait   you
          'I will wait for you in my office at three o'clock tomorrow afternoon'
      b. *****San dianzhong**, wo **mingtian xiawu** zai bangongshi deng ni.
          three o'clock   I tomorrow afternoon at office   wait   you

(57)   a. Ta **shao cai**   buguo **chao jidan, zhu baicai** eryi.
          He cook dishes only fry   egg   boil cabbage Ptc
          'If he cooks, he can only fry eggs and boil cabbage'
      b. *Ta **chao jidan, zhu baicai** buguo **shao   cai** eryi.
          He fry   egg   boil Cabbage only cook dishes Ptc

(58)   a. **Xiao-Zhang hui pian**   **ren**-me, wo xiang **ta zhi hao pian-pian laopo**.
          Little-Zhang will deceive people-Top I think he only can deceive wife
          'If Xiao-Zhang will deceive others, I think he can only deceive his wife'
      b. *****Xiao-Zhang hui pian   laopo**-me, wo xiang **ta zhi hao pian-pian ren**.
          Xiao-Zhang will decieve wife-Top I think he only can decieve people

In each case above, the topic is bigger than its semantically relevant elements: *shuiguo* 'fruit' > *pingguo* 'apples' (nominal), *huoche* 'train' > *canche* 'dining coach' (locative), *mingtian xiawu* 'tomorrow afternoon' > *san dianzhong* 'three o'clock' (temporal), *shao cai* 'cook dishes' > *chao jidan, zhu baicai* 'fry egg, boil cabbage' (verbal), and finally, *Xiao-Zhang pian ren* 'Xiao-Zhang deceives others' > *Xiao-Zhang pian laopo* 'Xiao-Zhang deceives his wife' (clausal). The reverse of this relation, by contrast, is ruled out.

While genericity, usually encoded by bare NPs, is the favored reference for frame-setters like *shuiguo* 'fruit' in (54a), definite or universal-quantified NPs are also fine, as in (59), (60)

(59)   Zhe liang kache wo zhengzai jiancha jiashi zhizhao.
                 this CL truck I   be...ing check drive licence
                 lit. 'For this truck, I am checking the driver licence'

(60) Meige ren, wo dou zhi jide xing, bu jide mingzi.
every person I all only remember surname not remember personal-name
'For everybody I only remember their surnames but not personal names'

Frame-setting topics do not necessarily precede the subject. Subtopic is also a good position for them. For example, (61) is equally acceptable as (54a):

(61) Wo **shuiguo** zui xihuan **pingguo**.
I fruit most like apple
'Among fruits, I like apples most'

Usually, a frame-setter is outside the argument structure in the clause. Thus Gasde (1999) claims that it is "IP-external". In Chinese, however, there are also cases in which speakers can create an "IP-internal" frame-setting topic. There are two ways to do so. One is to make an argument "split", the other to coin an IT. Let me examine them in turn.

4.3.4. Splitting the argument for setting a frame

This is a pattern where the head of the objective NP (DP) is separated from its modifiers by the verb. The head is put in the topic position preceding the verb while the modifier is left in the normal object position following the verb. For convenience, let's call the head "split topic". A syntactic constraint for the split is that the modifier left behind must be a syntactically autonomous NP, such as a Num-CL (numeral-classier) phrase, a Dem (demonstrative)-CL phrase, or a *de*-phrase (*de* is a relativizer/nominalizer). For instance:

(62) a. Wo **(lan) chenshan** mai-le **san** **jian**.
I blue shirt buy-perf three CL
lit. 'As for (blue) shirts, I bought three ones of them'

b. Wo **chenshan** mai-le **zhe jian**.
I shirt buy-perf this CL
lit. 'As for the shirt, I bought this one'

c. Wo **chenshan** mai-le **lan** *(de).
I shirt buy-perf blue Nom
lit. 'As for the shirt, I bought a blue one'

d. Wo **zhe zhong chenshan** mai-le **san jian**.
I this kind shirt buy-perf three CL
lit. 'As for this kind of shirt, I bought three ones'

The split topic is often a bare NP, i.e., a bare noun or an NP with a non-deictic modifiers, as *(lan) chenshanthe* '(blue) shirts' in (62a). Definite Dem-CL is permitted for the topic only when CL is a kind-denoting classifier like *zhong* 'kind, sort' in (62d) [3]. Either bare NPs or NPs with kind-denoting classifiers are generic, while the phrases in object positions are either specific, as in (62a, c), or definite (less often), as in (62b). Thus there is a

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[3] If there is a whole-part relation between the topic and the object, the topic can contain a demonstrative and/or a numeral, as in *Wo (zhe) san ge li chi le liang ge* 'I ate two of the three pears', lit. 'I (this) three CL pears eat Perf two CL'. This is a frame-setting topic construction, but is not a split one, since the two separate parts cannot be combined into one phrase.

type (bigger)-token (smaller) relation between the two sides. The topics in (62) are all subtopics, but they can also function as main topics.

As we can see, each phrase in the object position in (62) contains a gap which takes the split topic as its antecedent. Furthermore, since the split topic is generic, it can be an antecedent for the gaps following both a specific phrase and a definite phrase simultaneously. A non-generic object has no such function. Compare (63a) with (63b):

(63)   a. Wo chenshan$_i$ mai-le   san jian [$_i$], ta mai-le zhe jian [$_i$]
           I   shirt   buy-Perf three CL he buy-Perf this CL.
           'I bought three shirts, and he bought this (shirt)'.

       b. Wo mai-le   san jian chenshan$_i$ ta mai-le   zhe jian [$_{i/j}$].
           I buy-Perf three CL shirt   he buy-Perf this CL.
           'I bought three shirts, and he bought this'

In (63a), *chenshan* as a split subtopic serves as the antecedent not only of the gap following the specific *san jian* 'three CL', but also of that following the definite *zhe jian* 'this CL'. The second clause of (63a) actually means 'he bought this **shirt**'. In (63b), the truth condition for the first clause remains the same with (63b), but there is no generic topic there. Since no word can serve as the antecedent for the gap in the second clause in (63b), the clause does not specify which kind of clothes was actually bought.

The split topic can be widely attested among Chinese dialects. In some southern dialects it seems to be more dominant than in Mandarin (c.f. Liu, to appear)

To split an argument for the creation of a frame-setting topic violates the proximity principle, i.e., elements with close syntactic and/or semantic relationships tend to be located closely (c.f. Croft 1990:174-183). As Foley's example (as cited in Croft ibid.:179) shows, Russian has a similar split construction. Croft explains it as "pragmatic factors determining word order compete with the iconic-distance principle in determining linguistic structure". However, the split topic construction is an unmarked pattern and does not need to be triggered by apparent pragmatic factors in many southern Chinese varieties. Therefore, I prefer to attribute the wide use of this pattern in Chinese to the syntacticization of frame-setting topics. Since it is a highly syntacticized position, speakers always try to fill in it. The generic bare NP extracted from the object is one of the candidates to fill in the position. This candidate is particularly welcome when there is no "IP-external" frame-setter.

4.3.5. The referentiality of nominal and verbal ITs

IT, which prefers generic elements too, is just another argument-internal candidate to fill in the frame-setter position. Interestingly, while the split topic violates the proximity principle, IT, as a semantically empty constituent, violates the principle of economy. Its existence again proves the syntactic significance of the frame-setter position in Chinese.

Nominal IT actually has much in common with the split topic. Compared:

(64)   a. Split topic: Wo **chenshan**$_i$ ye mai-le   san jian [$_i$]
                    I   shirt   also buy-Perf three CL
   lit.   'As for shirts, I also bought three ones of them'

b.　　IT:　Wo **chenshan**ᵢ　ye　mai-le　san　jian **chenshan**ᵢ.
　　　　　　I　shirt　　also buy-Perf three　CL　CE
lit.　　　　　'As for shirts, I also bought three ones of them'

(64a, b) are two synonymous sentences with similar structure. The only distinction between them is the overt occurrence of *chenshan* 'shirt' in the object position in (64b). In other words, while the split topic is co-indexed with a gap, IT is co-intexed with the repetition of itself. Both constructions are means to make frame-setting topics from the available argument structure.

The more significant similarity lies in the way the two topic types observe the Principle of Frame Being Bigger. In both constructions, the topic and comment share a common NP, overt or covert, thus there is no relation of being bigger based on different lexical items like *shuiguo* 'fruit' vs. *pingguo* 'apple'. The relation of being bigger here consists in genericity on the topic side vs. specificity/definiteness on the comment side. In other words, IT structure and split topic structure follow PFBB the same way. They observe PFBB as perfectly as "IP-external" frame-setting topics discussed in 4.3.3, though in a different way.

Thus far, by relating IT with other frame setting topics, I have explained why nominal IT prefers generic NP. Yet, we are still left a question: provided the bare NP in the IT position is generic, is the co-indexed NP in the CE position generic too? The answer should be 'yes'. A full specific or definite NP in Chinese can be viewed as a combination of a specific/definite phrase and a generic NP. The specific phrase is in the form of Num-CL, and the definite one in the form of Dem-(Num)-CL, while the generic NP is in the form of bare NP, typically (Adj)-N. The most powerful evidence supporting this analysis comes from kind-denoting classifiers. As shown in (62d), repeated as (65a), a phrase consisting of a definite demonstrative plus a kind-denoting classifier can also function as a split topic, patterning with a bare NP. Furthermore, like a bare NP, the definite kind-denoting phrase can also follow a specific/definite determiners, as in (65b).

(65)　a. Wo **zhe zhong**　　chenshan mai-le　**san jian**. (=62d)
　　　　　 I　this CL(kind)　shirt　　buy-perf three CL
　　　　　 'As for this kind of shirt, I bought three ones'

　　　 b. Wo mai-le　　**san jian zhe zhong**　　chenshan.
　　　　　 I　buy-Perf　three CL this　CL(kind)　shirt
　　　　　 'I bought three shirts of this kind'

What I mean by "generic" in the paper is equal to "kind-denoting". That accounts for why kind-denoting phrase can function like a generic bare noun. Note that the object *san jian zhe zhong chenshan* 'three shirts of this kind' in (65b) is a specific phrase, which does consist of a specific phrase with a numeral classifier and a generic NP with a kind-denoting classifier. If *zhe zhong chenshan* 'this kind of shirt' means *tiaowen chenshan* 'striped shirt' in a certain context, the speaker can use the bare NP in place of the kind-denoting phrase in (65b), yielding (66):

(66)　　　Wo mai-le　　**san jian tiaowen chenshan**
　　　　　 I　buy-Perf　three CL　striped　shirt
　　　　　 'I bought three striped shirts'

(65b) and (66) reveal that the bare NP in a specific phrase is actually generic in nature. It coincides to the hypothesis that a DP contains a bare NP as the complement of D.

Now let us turn to verbal IT. Our above analysis applies to verbal IT in a similar manner.

Verbal IT too should be bigger than CE, following PFBB. For nominal IT, generic NPs are favored elements to serve as IT. Generic nominals are a kind of unbounded elements. Their counterparts in verbals are unbounded VPs in the form of bare VPs in Chinese. Generic NPs denote people or objects as kinds, types, not as any individuals in the real-time world. In other words, a generic NP indicates an unindividualized set. Similarly, an unbounded VP denote an action or state as a kind, a type, i.e., an unindividualized set, not as any individual one in the real-time world. In contrast, verbal CE usually indicates a concrete action or state, with certain aspect marking, including zero marking. A set is larger than any individual within the set. Hence PFBB is well observed.

This analysis accounts for why verbal IT contains no aspect marking, as described in 2.3.

4.4. The neutralization of nominal and verbal ITs

The observations made thus far in Section 4 may lead to an explanation of the neutralization of nominal and verbal elements as mentioned in 2.1.

Since IT is semantically empty, it can be neither argument nor predicate. The morphological and syntactic differences between both categories basically arise from the opposition between being arguments and being predicates[4]. While features like (in)definiteness or (non) specificness mainly serve to bound an argument, those like the past/present tense or (im) perfective aspect mainly serve to bound a predicate. The IT position, however, is neither argumental, nor predicative. In this position, nominal IT does not behave like prototypical NPs while verbal IT does not behave like prototypical VPs. Unbounded NPs and VPs are alike in nature. The differences between the two sides are no longer salient thereby. Hence the neutralization of nominal and verbal elements in the IT position. Tsao (1987) argues that the first VP in the so-called verbal copying construction has been deverbalized and nominalized. While Tsao's analysis well accounts for the 'deverbalization' of VPs, it fails to account for the 'denominalization' of NPs in the IT position. Therefore the neutralization analysis seems to be a more precise description. In addition, the neutralization analysis also sounds better than the nominalization analysis in the fact that verbal IT is predominant over nominal ones.

5. IT in discourse and Pragmatics

5.1. Discourse motivations and the degree of grammaticalization

The topic, including IT, even as a syntactic notion, is highly relevant to discourse and pragmatics. To be more aware of IT, it is necessary to relate IT to discourse and pragmatics. This aim, however, seems to be too far for this paper. For example, the occurrence of IT has much to do with topic sensitive operators (TSO), a group of words with complicated semantic meanings and pragmatic functions. TSO alone deserves extensive studies. In addition, there are actually various types of IT, the occurrence of which might be triggered by different discourse factors, as preliminarily described in Xu and Liu

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[4] That is why linguists think bare NPs in Romance languages are predicative because they cannot serve as arguments, (c.f. Chierchia 1998).

(1998). Without detailed investigation of each type, a satisfying generalization of functions of IT can be hardly drawn.

On the other hand, the importance of discourse motivations are far from being equal for each IT type. It appears that the more grammaticalized or more morphologicalized an IT type is, the less discourse conditions it needs to occur, and the less marked it sounds. For instance, the verbal IT in Shanghainese functioning like the morphological variant of verb the stem, such as in (49-50), needs almost no particular contexts to occur.

In the following part of this section, I will only briefly deal with some factors which may not only motivate the occurrence of some ITs, but also underlie the grammaticalization of some IT types. These factors can be divided into two groups. One includes focus, emphasis, affirmation and concession. The other includes contrast, co-ordinating and parallelism.

5.2. Focus, emphasis, affirmation and concession

In many languages, a topicalized argument usually leaves a gap or a resumptive pronoun in the normal position for the argument. This is in part true for Chinese. However, there is an alternative in Chinese, i.e. repeating the topicalized element in the comment. That yields what we call identical topic (IT) structure. A major motivation to do so is to emphasize the element which has been topicalized. A lexically meaningful element should be more informative than a gap or pronoun. This seems to fit in linguistic iconicity: longer, heavier, more meaningful linguistic elements will cause greater informational power. Compare (40), repeated as (67):

(67)   a. Xiangyan-me, wo yiqian   ye chou-guo   xiangyan.
           cigarette-Top I previously also smoke-Exper CE
           'As for cigarettes, I used to smoke them too'

        b. Xiangyan$_i$-me, wo yiqian   ye chou-guo [$_i$].
           cigarette-Top I previously also smoke-Exper
           'As for cigarettes, I use to smoke them too'

In (67a), *xiangyan* 'cigarette' occurs twice, as a topic first and then part of the comment, where *xiangyan* is emphasized; whereas in (67b), *xiangyan* occurs only as a topic, which has a co-indexed gap in the comment, where *chou-guo* 'used to smoke' is emphasized. In fact, the CE *xiangyan* in (67a) occupies the sentence-final position, which is for natural focus in Chinese (cf. Liu & Xu 1998a). In addition, CE often co-occurs with focus markers like *shi* or focus sensitive operators, some of which are also topic sensitive operators such as *ye* 'also/even' in (67a). In cases where CE does not occur in the natural focus position, focus markers or focus sensitive operators may become obligatory, as in (68):

(68)   Xianggang Lao-Wang *(shi/ye) dao Xianggang qu-guo.
        Hong Kong old-Wang   Foc to CE   go-Exper
        'As for Hong Kong, Old-Wang really has been there'

Because *Xianggang* 'Hong Kong' as CE does not occur sentence-finally as a natural focus, the focus marker *shi* or the focus/topic sensitive operator *ye* must co-occur with CE. When CE is stressed by the focus marker *shi*, it is a contrast focus (c.f. Liu and Xu 1998a). The above data can be generalized as (69) below:

(69)   CE often occurs as a natural focus or contrast focus in Chinese. The IT phrase is thus strongly emphasized because the single element occupies both positions of the topic and the focus within a clause.

The emphasis function of IT structure is more important for verbal elements than for nominal elements in Chinese. When a Chinese speaker is to stress a nominal, he can employ the so-called pseudo-cleft structure with *shi...de*, which has similar emphasis function as that of English cleft sentences. The *Shi...de* construction also applies to a VP with its arguments and adjuncts. In such a case, the stressed part is normally one of the arguments or adjuncts rather than the verb itself (c.f. Zhu 1979). In addition, according to Paris (1998), the *shi...de* construction has the effect of transforming a stage-level predication (+event) into an individual-level one (-event), where the VP become generic in her term, or unbounded in my term. In other words, this construction is unable to emphasise a VP as an event, especially the verb itself. IT structure makes up for this "flaw". While verbal IT occurs as an unbounded element, CE remains all its features as a bounded verb, including its aspect feature. That is one of the reason verbal IT is more common than nominal IT. Another reason might be the fact that reduced conditionals, which is a main source for IT, is more often verbal.

In Shanghainese, based on its emphasis effect, IT structure becomes a very ordinary and unmarked pattern for affirming or stressing a property, a state or an event. This pattern is used so frequently as even to be undergoing a change from syntax into morphology (c.f. 4.2).

In Mandarin as well as in other dialects, either nominal or verbal IT can occur in a concessional clause. That is why we sometimes add a *but*-clause after an IT clause in our examples, such as (2), (3). Verbal IT, in particular, has become common means to express concession in colloquial Mandarin and exhibits a high degree of grammaticalization. For example, in (70), the IT *congming* "smart/clever" is a positive VP, but its CE is under negation. Thus IT here is totally empty.

(70)   Ta erzi **congming** dao   **bu congming**, danshi hen yonggong.
        he son smart   actually not CE   but quite diligent
        'Although his son is actually not smart, but is quite diligent'

As we have seen in 4.2.4, the more empty an IT is, the more grammaticalized it is.

In fact, concession is inherently related with affirmation. When one uses a concessional, he is in a position where he has to affirm some fact, say A, which sounds disharmonious with his main statement, say, B, but what he really wants to stress is B despite A. That is why the concessional often contains affirmative words or morphemes. In Chinese, conjunctions for concessionals always contain affirmative morphemes. For instance, *Suiran*, 'although', lit. 'although it is so', *zongran*, 'although', lit. 'let it be so', *guran* 'though indeed', lit. 'certainly so', *ran'er* 'but, however', lit. 'so, but'. These facts hint that the concessional usage of IT should have derived from its affirmative role.

Among the types of IT mentioned so far in this subsection, examples like (67a) and (68) sound relatively marked in that their occurrence needs particular contexts and strong discourse motivations, e.g., when IT is given/activated information, or the speaker strongly desires to emphasize the expression serving as IT and CE. The remaining types, including Shanghainese verbal IT for emphasis or affirmation, Mandarin verbal IT for concession, are all unmarked patterns, like other syntactic or morphological means for these functions. No special context is needed for them.

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5.3. Contrast, co-ordination and parallelism.

One of the roles a topic may play is contrast. A topic with a topic marker such as Shanghainese *meq* typically has the contrasting function[5].The same is true for IT. For some types of IT, like those exemplified by (6, 12, 13, 15, 16), contrasting function shows up most prominently. In these cases, the two or more co-ordinate clauses are tightly bound with each other and no single clause can stand alone, although there is not any conjunction there to tie them up. Obviously, the IT construction plays crucial role here. Since the construction strongly indicates a contrast between two or among more topics in a co-ordinate sentence, at least two topics should be present in a syntactically similar way. The contrasting function here has given rise to a fixed formula for co-ordinating. This is in accord with other types of topic structure. As we noted before (Xu & Liu 1998:233-234), the topic marker *meq* in Shanghainese, while marking contrastive topics, also plays an active role in linking co-ordinate clauses. Since Chinese, particularly spoken Mandarin and many dialects, lack pure (lexically meaningless) conjunction for verbal elements[6], the linking function of contrastive topics, especially contrastive ITs which prefer a syntactic parallelism, is indeed an important way to organize co-ordinate sentences in discourse.

Comparing the above analysis with what we see in 5.2, one can find, interestingly, that various types of IT have gone along different pathways of grammaticalization and result in different patterns with regard to semantic and pragmatic functions. Some have developed into specialized patterns for emphasis or affirmation, whereby some have further developed into a specialized pattern for the concessional clause, belonging to a complex sentence, while others developed into a parallel sentence pattern, belonging to a compound sentence.

6.   Conclusion

6.1. Summary

An identical topic (IT) is wholly or partially identical to certain part of the following comment. The corresponding element (CE) may be an argument, part of an argument or a predicate in a certain syntactic level. In some special cases, CE itself may be a topic.

IT can be a nominal or verbal element, the latter being predominant in Chinese. The differences between nominals and verbals in the IT position make little sense and even are neutralized. Pause after IT is only optional. Topic markers, which also apply to other types of topics, are often employed after IT. While topic sensitive operators (TSO) play crucial role in triggering the occurrence of IT in Mandarin, topic markers are a more important factor in Shanghainese.

Being a linguistic entity, IT is semantically empty, while CE contributes its lexical meaning to the clause meaning. In a sense, the occurrence of IT violates the principle of linguistic economy. There is a continuum of grammaticalization for IT. At one extreme is the conditional IT, which sounds more meaningful. At the other extreme are morphologicalized IT types, which can be reduced into nonword elements or even meaningless syllables. Like what we call "split topic", IT prefers unbounded elements, usually in the form of generic bare NPs or aspectless VPs. In so doing, IT follows the principle of frame being bigger (PFBB) in a way, because an unbounded element is bigger in its extension than

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[5] See Xu & Liu (1998:228-237) for a discussion of the contrasting function of topics and its relationships with other functions topic may play.

[6] Cantonese *thungmai* 'and' is an exception. It can be used for NPs, VPs and clauses.

a specific or definite one. In addition, since IT is neither an argument nor a predicate, the bounding conditions respectively for arguments or predicates are no longer in need. That also accounts for the neutralization of nominal and verbal elements in this position.

For some types, the occurrence of IT relies on particular contexts or discourse motivations. The most prominent motivation is to emphasize a constituent because IT structure makes the emphasized element occur twice, in both topic position and focus position. Due to the emphasis function, some types of IT have been so grammaticalized as to be common patterns for emphasis, affirmation or concession. For these IT types to occur does not need particular contexts or special discourse motivations. The contrastive function, on the other hand, makes IT play an active role in organizing co-ordinate sentences in discourse and become highly grammaticalized means, too.

6.2. IT in the classification of topics.

As far as I know, identical topic structure is something novel in the linguistic literature. How to classify it properly, i.e. to find it an appropriate position relative to other types in a general schema of topics, remains a tough task. In my opinion, the frame-setting vs. aboutness division of topics (Gasde 1999), is a well-established taxonomy. Yet we will still face trouble when classifying IT by this design. Since an aboutness topic should be an argument, IT, being semantically empty, cannot be an aboutness topic. In addition, an aboutness topic should function as a pivot of a sentence (in Foley and Van Vanlin's sense, see Sasse 1995) by means of its either semantic or pragmatic salientness. Many IT types, especially verbal IT, which is dominant over nominal IT, seem to fail in playing such a function. On the other hand, according to Gasde, the frame-setter is IP-external and is not supposed to follow the subject. Unfortunately, IT, although able to precede the subject, takes the subtopic position as its favor. Thus it is also difficult to label it as a frame-setting topic due to its syntactic position.

Since this classification is based more on semantics than on syntax, let us take more care of semantics and put aside syntactic obstacles. Then it will make me more comfortable to treat IT as a frame-setter than as an aboutness topic. Like other frame-setters, IT follows PFBB. In addition, the aboutness topic prefers definite elements. Contrarily, IT prefers generic ones. Recall that even CE can be a topic sometimes (3.2). If IT is a frame-setter, then we will get a frame-setting + aboutness order, which will be at least a more desired result than the reverse. Since Gasde's design does not cover IT, we may say that as a special subtype of frame-setters, IT can occur after the subject. It is very special in that while other frame-setters really set/add frames external to the argument structure, ITs "artificially" created frames based on the material inside the argument structure. Unlike gap topic, however, ITs do not "take away" anything from arguments. That special situation prevents ITs from being aboutness topic. In this respect, split topics seem to stand in the midway between the gap topics and ITs.

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Where has the new information gone? The Chinese case[*]

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0. Introduction

In this paper I would like to show that the principles which have been proposed so far to account for the relationship between the informational level and the syntactic level in a Chinese utterance are unable to predict some interesting and regular facts of that language.

To my mind, the form and the position of the question operator in an interrogative utterance provide two distributional tests which univocally indicate where the new information lies. Hence, the pairing of affirmative and interrogative sentences might be a better approach to locate where the new information lies in a Chinese utterance.

1. Previous analyses

Functional as well as formal analyses have offered principles which try to relate the scope of operators, such as negation or question – hence the domain of new information – to the (surface) syntactic level.

1.1. The functional paradigm

Functional linguists have associated one of the general typological characteristics of Chinese, i.e. topic prominence, with iconic properties of word order. In such a perspective, the direction of word order, that is from left to right, is directly correlated with the position of old and new information. Old information stands in preverbal position, whereas new information stands in postverbal position (see Tai (1989), Tsao (1990), among others). Consequently, there is scope transparency and the absence of what is called 'negative transportation' in English is predicted for Chinese.

In English, it is well known that the negative marker modifies the matrix verb in (01), but that its scope may be on the subordinate verb, so that (01) can be paraphrased as (02).

(01)   I don't think he will be here today

(02)   I think he won't be here today

If negative transportation does not exist in Chinese, we can immediately predict the difference in grammaticality between (03) and (04). (03), which is built on the same pattern as (01) is ill-formed.

(03) *wo **bu** xiang ta jintian hui lai le
     I Neg. think he today can come F.P.
     I **don't** think he will come today

(04) wo xiang ta jintian **bu** hui lai le
     I think he today Neg. can come F.P.
     I **don't** think he will come today

Such a phenomenon is attested in complement clauses as well as in adverbial clauses. Thus the ambiguity found in the English example (05) does not arise.

(05) I did **not** go because I was scared
     (05a) I did not go, because I was scared
     (05b) I went, (but) not because I was scared

(06) below corresponds to interpretation (05a), while (07) corresponds to (05b).

(06) wo **mei** qu, yinwei wo haipa
     I Neg. go because I afraid
     I did not go, because I was scared

(07) wo qu-le, (dan bing) **bu shi** **yinwei** haipa
     I go-Suf. (but and) Neg. be because afraid
     I went, (but it was) not because I was afraid

1.2. The formal paradigm

1.2.1. Simple sentences

Contrary to functional linguists, formal linguists posit an abstract level, called LF (Logical Form), where meaning is computed. In that vein of research, Ernst (1994 : 245) – among others[1] – posits the isomorphic principle (IsoP), which accounts for the un-grammaticality of (08) as opposed to the grammaticality of (09)[2]. This principle reads as follows: "If an operator A has scope over B at SS, then A has scope over B at LF".

(08) *ta yiding **qu bu qu?**
     he definitely go-Neg.-go

(09) ta **shi bu shi** yiding qu?
     he be-Neg.-be definitely go
     is he definitely going?

The ungrammaticality of (08) "can be accounted for by assuming that the A-Not-A form [+Qu] raises to Comp at LF and that any adjunct which c-commands [+Qu] at SS must also raise to c-command it at LF....If the adverb is incompatible with scope over [+Qu] , as most core adjuncts are, the result will be ruled out." (*ibid.*: 260). As the reader can see, first, if the ungrammaticality of (08) finds a mechanic description, nothing is said about the fact that the question needs to be marked with *shi bu shi* 'is it (the case) that ... ?'. Second, how can the difference between (08) and (10) be accounted for, except from stating the following tautology: *yiding* 'definitely' is

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[1] See also Huang (1982) or Aoun and Li (1989).

[2] (8) and (9) are numbered (9b) and (12a) in Ernst (1994).

marked as incompatible with question marking on the verb, hence the ungrammaticality of (08), while *jiujing* 'finally' is marked as compatible, hence the grammaticality of (10)?

(10)   ta jiujing **qu bu qu?**
         he finally go-Neg.-go
         finally, is he going?

How can the ill-formedness of (08) be related to the well-formedness of (10)? Moreover, although the adjuncts *jiujing* 'finally' and *zhongyu* 'finally' share some semantic properties, why do (10) and (11) differ in grammaticality?

(11)   *ta zhongyu **lai bu lai?**
         he finally   come-Neg.-come

1.2.2. Complex sentences

As far as complex sentences are concerned and in order to capture the so-called 'topic prominence' of the Chinese language, Gasde and Paul (1996) introduce a functional projection called 'Topic Phrase', which can be occupied by two types of subordinate clauses. Generating adjunct clauses in the specifier position of a Topic Phrase automatically provides them with the surface order subordinate + matrix clause. In their perspective, both conditional and causal clauses, as illustrated in (12) and (13)[3], occupy to the same position."To generate adjunct clauses in the specifier position of TopP allows us to automatically derive the rigid word order "adjunct clause - main clause" observed in complex sentences with causal and conditional clauses" (*ibid.*: 285).

(12)   ruguo ni   yao mai fangzi (de hua) wo jiu jiegei ni   qian
         if   you want buy house (if)   I *jiu* lend   you money
         if you want to buy a house, I will lend you some money

(13)   yinwei ta pingshi zhuyi duanlian, suoyi   shenti yizhi   hen hao
         because he usually mind exercise therefore body   always very good
         because he does sports regularly, he is in excellent health

1.3. Problems

From what I have somewhat sketchily presented above, one could gather the impression that Chinese is somehow more 'regular' or more iconic than English. Chinese would evidence only direct scope[4] – as in (03)-(04) – while informational properties (topic prominence) would be correlated to surface order properties (adjunct preceding main clause) – as in (12)-(13).

1.3.1. The existence of inverse scope

Example (14) shows that, apart from direct scope, inverse scope also exists in Chinese.

(14)   ta **jiu neng** he   yi   bei jiu
         he only can   drink one Cl. alcohol
         he can only drink one glass of wine

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[3] (10) corresponds to (20b) and (11) to (21a) in Gasde and Paul's paper.

[4] See Huang (1981) for the one-to-one correspondence between word order and the scopal properties of quantifiers.

If (15) were to follow direct scope assignment, the modal verb *neng* 'can', which has wider scope than the focus adverb *jiu*[5], should precede it. Hence (15) is predicted to be well-formed, but it is not.

(15)   *ta **neng jiu**   he   yi   bei   jiu[6]
       he can only   drink one Cl. alcohol

Hence inverse scope[7] does exist in Chinese. Using different syntactic patterns and the cooccurrence between different types of quantifiers in subject and in object positions, Lee, Yip and Wang (1999) have demonstrated that inverse scope in Chinese is influenced by the lexical properties of quantifiers[8] and by the thematic roles played by objects. Thus, for instance, inverse scope is more readily available to goal/location objects, especially when quantified by *mei* + Classifier 'every' than they are to theme objects, especially when such objects are quantified by *suoyoude* 'all'. Thus, (16), where the object *suoyoude ge* 'all the songs' is a theme, shows no inverse scope effect, while inverse scope is possible for (17). In (17), the object *mei ge wuding* 'every roof' is locative.

(16)   zai zhei ci yinyuehui-shang, you liang ge gexing chang-le **suoyoude** ge
       at this Cl. concert-on   have two Cl. star sing-Suf. all   song
       at this concert, two singers sang all the songs
       (*liang ge* > *suoyoude*)

(17)   zai na tiao jie,   you liang ge qiqiu   piao-guo-le   **mei ge** wuding
       at that Cl. street have two Cl. balloon float-Suf.-Suf. each Cl. rooftop
       on that street two balloons floated to every roof
       (*mei ge* > *liang ge*; *liang ge* > *mei ge*)

1.3.2. The existence of different types of adjunct clauses

That Gasde and Paul's analysis fails to account for many distributional facts which differentiate conditional clauses from causal ones has been convincingly argued for by Tsai (1995a, 1995b). She uses eight tests (deletion of the subject of the matrix clause, topicalisation, embedding in tensed clauses, relative clause formation, focussing, constituent questioning in the matrix clause, the scope of the *shi-bu-shi* operator and anaphoric pronominalization in the matrix

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[5]   Note that when it is interpreted as a restrictive/focus adverb as in (12) *jiu* takes scope on the right on the quantified object. When it indicates a causal/consequential/anaphoric relation it takes scope on the left (see II below). To my knowledge, such a difference together with its ensuing consequences has gone unnoticed in the literature.

[6]   In an interrogative pattern though, the expected scope is found, as in (i), where *neng* 'can' precedes *jiu*.

       (i)   ta **neng bu neng**   jiu he   yi   bei   jiu?
             he can-Neg.-can   only boire un   Cl. alcohol
             can he drink only one glass of wine?

       (i)   corroborates what I say about the basicness of interrogative word order in Chinese in § III.

[7]   "An expression *a* has inverse scope over an expression *b* iff *b* is in the semantic scope of *a* but *a* does not c-command *b* at S structure", De Swart (1998). See also Buring (1997). (i) below is acceptable because the negation marker has inverse scope on the negative polarity item. Its semantic scope is wider than its syntactic scope. Inverse scope is felicitous if the wide scope interpretation of negation entails a positive statement, or pragmatically carries a positive implicature.

       (i)   [a doctor who knew *anything* about acupuncture] was not available

[8]   In order to account for quantifer scope interpretations, Kuno *et al.* (1999) propose an expert system which takes into consideration both syntactic and non syntactic principles. One of these principles reads as follows: a syntactically topicalized quantified expression always has wide scope over a syntactically nontopicalized quantified expression".

clause) to prove that conditional clauses and causal clauses present different informational properties. *Conditional clauses carry old information, while causal clauses carry new information.* As expected, the affirmative/interrogative pair (18)-(19) attested for conditional complex sentences has no causal counterpart, cf. (20)-(21)[9]. The matrix in (19) contains an interrogative pronoun *shei* 'who?' which is the locus of new information; the matrix of (21) cannot, because it is presupposed.

(18)   ruguo Zhangsan shengbing, Lisi hui qu mai yao
       if   Zhangsan be ill   Lisi can go buy medicine
       if Zhangsan falls ill, Lisi will go and buy medicine

(19)   ruguo Zhangsan shengbing, shei   hui qu mai yao?
       if   Zhangsan be ill   who? can go buy medicine
       if Zhangsan falls ill, who will go and buy medicine?

(20)   yinwei Zhangsan shengbing, Lisi hui qu mai yao
       because Zhangsan be ill   Lisi can go buy medicine
       because Zhangsan is ill, Lisi will go and buy medicine

(21)   *yinwei Zhangsan shengbing, shei hui qu mai yao?
       because Zhangsan be ill   who? can go buy medicine

In the following, I will study both complex and simple sentences which contain two connectors *jiu* and *cai*. I will try to demonstrate that, in Chinese, there is no one-to-one correspondence between three levels of analysis: the informational level (topic), the tagging level (subordinate clause) and the syntactic level (left to right, subordinate before main clause). In other words, the (automatic) association between the terms of the triplet <topic, subordinate clause, and left position> is ill-grounded.

2.   The question operator and informational properties

2.1.   Complex sentences

One of the characteristics of complex sentences in Chinese is that both their subordinate and their main clauses contain markers which hold a tight (semantic) relationship. Subordinators are in construction with a connector[10], which co-vary according to the logical relationship between clauses. Thus, for instance, the connector of hypothetical clauses (*jiu*) is different from the concessive connectors (*keshi, ye*). Within conditional clauses[11], one can draw a (semantic) distinction between sufficient conditionals containing *jiu* and necessary conditionals containing *cai*. Even though both types of conditional clauses are treated as generated under the same node by Gasde and Paul (1996:271-272), I would like to show that they behave differently when they are questioned. Briefly, I would like to demonstrate that conditionals which are in the scope of *jiu* are presupposed, while conditionals which are in the scope of *cai* are asserted.

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[9]   (17)-(20) correspond to (18a, b) and (19a,b) in Tsai (1995a).
Le Querler (1993) shows that among subordinate clauses appearing in sentence initial position in French, such as *car p, puisque p, comme p* or *étant donné que p*, only causal clauses *parce que p* can be clefted. *yinwei* translates as 'parce que'.

[10]   For an overview of such a relationship, cf. Paris (1983) and (1984).

[11]   Causal and temporal clauses, too.

In (01) below, the interrogation is marked by a sentence final particle *ma*, whose scope is both wide and unclear. Does *ma* bear on the subordinate clause only, on the matrix clause only or on the relation[12] between both clauses?

(01) ruguo tianqi   hen leng, Lisi *jiu* hui qu mai shu   **ma?**
      if   weather very cold Lisi *jiu* can go buy   book Inter.
      is it the case that if it is cold, Lisi will go and buy books?

One way to disambiguate a question marked by *ma* is to use its verbal counterpart, called the A-not-A question. Its scope is necessarily small: its does not appear in sentence final position. Within one given clause, it shows up at the level of the predicative phrase, on the first verb. The first verb of the subordinate clause of (01) is the stative verb *leng* 'be cold'. If it is questioned as in (02) below, the sentence is ungrammatical.

(02) *ruguo tianqi   **leng bu leng**, Lisi jiu hui qu mai shu?
      if   weather cold-Neg.-cold Lisi *jiu* can go buy book

The ill-formedness of (02) is expected: in general, a conditional clause is presupposed, hence it cannot fall under the scope of negation or question. So, we predict that only the (first) verb of the predicate of the *matrix* clause of (01) should allow questioning. Thus (03) should be acceptable. But, contrary to expectation, it is not.

(03) *ruguo tianqi   hen leng, Lisi *jiu* **hui bu hui** qu mai shu?
      if   weather very cold Lisi *jiu* can-Neg.-can go buy book

Only (04), which is identical to (03), except for the presence of *jiu* is well-formed. (05) is also acceptable, but it is not identical in meaning with (04). (04) is more frequent than (05).

(04) ruguo tianqi   hen leng, Lisi Ø **hui bu hui** qu mai shu?
      if   weather very cold Lisi Ø can-Neg.-can go buy book
      if it is cold, will Lisi go and buy books?

(05) ruguo tianqi   hen leng, Lisi **hui bu hui jiu** qu mai shu?
      if   weather very cold Lisi can-Neg.-can *jiu* go buy book
      if it is cold, would Lisi go and buy books?

I will turn to the semantic explanation of the deletion or the unexpected positioning of *jiu* later on. For the time being, I will compare the questioning of conditionals with *jiu* (as in (01)) with the questioning of conditionals with *cai* (as in (06)).

(06) ni   zhiyou caiqu zhei ge banfa   *cai* neng xue-hao   **ma?**
//   you only   adopt this Cl. method *cai* can   study-well Inter.
(01) is it the case that only if you adopt this method you will succeed in learning?

In (01), as in (06), the question particle *ma* appears in sentence final position. Contrary to (04)-(05), the verb in the matrix clause cannot be questioned: (07)-(09) are not acceptable.

(07) *ni zhiyou caiqu zhei ge banfa   **cai neng bu neng** xue-hao?
// (03) you only   adopt this Cl. method *cai* can-Neg.-can   study-well?

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[12] Gasde and Paul's analysis (ibid.:273) predicts this sole possibility.

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(08) *ni zhiyou caiqu zhei ge banfa **Ø neng bu neng** xue-hao?
// (04) you only adopt this Cl. method Ø can-Neg.-can study-well?

(09) *ni zhiyou caiqu zhei ge banfa **neng bu neng cai** xue-hao?
// (05) you only adopt this Cl. method can-Neg.-can *cai* study-well?

The predicate of the subordinate clause *caiqu* 'adopt' is the only one left and available for questioning. But again, such a question is not acceptable.

(10) *ni zhiyou **caiqu bu caiqu** zhei ge banfa cai neng xue-hao?
you only adopt -Neg.-adopt this Cl. method *cai* can study-well

Only (11) below is acceptable. In its matrix clause, the question operator is marked not by the verb contained in the clause, but by an 'extra' verb, the copula *shi* 'be'. The presence of *shi* is to indicate that there is a presupposition[13]. Notice that contrary to (04) above where the connector *jiu* was absent, the connector *cai* is present.

(11) ni **shi bu shi** zhiyou caiqu zhei ge banfa **cai** neng xuehao?
you be-Neg.-be only adopt this Cl. method *cai* can study-well
is it the case that only if you adopt this method you will succeed in learning?

To sum up, conditionals marked by *jiu* and those marked by *cai* behave differently under questioning. Both the question marker and their positions vary. The (auxiliary) verb in the matrix clause is questioned in (04), while *jiu* is deleted. The copula is questioned in the subordinate clause of (11) , while the connector *cai* remains present. Hence we can conclude that conditionals containing *jiu* and those containing *cai* cannot appear under the same (functional) projection. A *jiu* conditional is indeed a topic: it cannot be questioned. On the contrary, a *cai* conditional is not a topic: it does carry new information and falls in the scope of the question operator.

Two other tests prove that conditionals with *jiu* and thoese with *cai* play different informational roles. First, a topical subordinate can take a resumptive anaphoric pronoun[14] *zhe* 'this' or *na* 'that', as in (13) below. A focal subordinate cannot, cf. (15)

(12) ruguo ni zai tuici, jiu bu heshi le
if you again decline *jiu* Neg. adequate F.P.
if you refuse again, it won't be accepted

(13) ruguo ni zai tuici, **zhe/na** jiu bu heshi le
if you again decline this/that *jiu* Neg. adequate F.P.
if you refuse again, it won't be accepted

(14) yaoshi duo lianxi cai tigao chengji
if much practice *cai* increase grade
it's only if you practice a lot that you will have better grades

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[13] For the use of meta-linguistic *shi*, see Teng (1974).

[14] The presence of a resumptive clitic is symptomatic of topicality (=old information), cf. Cinque (1990:63, 180).

(15)   *yaoshi duo   lianxi,   **zhe/na**   cai tigao   chengji
         if   much   practice this/that   *cai* increase grade

Second, a conditional clause cannot be clefted, while a causal one can. Morover, as clefting is available when the adjunct precedes the matrix, as in (17), this proves that a causal proposition cannot occupy a functional projection labelled Topic Phrase. By definition, a topic cannot be clefted.

(16)   *shi zhiyou tianqi   hen   hao, wo cai lai   de
         be   only   weather very good I *cai* arrive *de*

(17)   shi yinwei tianqi   hen   hao   wo cai lai   de
         be because weather very good I *cai* come *de*
         I came only because the weather is good

In passing, let's try to explain the difference between (04) and (05) above. *Jiu* marks both a logical and an anaphoric relationship between the antecedent/protasis (noted p) and the consequent/apodosis clause (noted q). In (04) we are dealing with a question about a conditional. Such types of conditionals are close to what has been called conditional speech act clauses in the literature[15]. *Jiu* is kept in (05) because what is questioned by the speaker is precisely the relationship between p and q, which *jiu* stands for : it is a conditional question. Moreover in (05) because *jiu* is in the scope of a modality, it indicates the distance that the speaker takes with respect to the utterance of such a relation. The opposition between *will* and *would* in the English translations of (04) and (05) tries to render the meaning difference between these two examples.

We now turn to simple sentences containing a quantified object.

2.2.   Simple sentences

In simple sentences containing a quantified object both *jiu* and *cai* function as restrictive operators, which alternate with *zhi* 'only', cf. (20)[16]. (19) is the interrogative counterpart of (18), which does not contain any restrictive operator.

(18)   ta **he-le**   yi   bei jiu
         he drink-Suf. one Cl. alcohol
         he drank a glass of wine

(19)   ta **you mei you**   he   yi   bei jiu?
         he have-Neg-have   drink one Cl. alcohol
         has he drunk a glass of wine?

(20)   ta jiu/cai/zhi   **he-le**   yi   bei jiu
         he only/only/only   drink-Suf. one Cl. alcohol
         he only drank a glass of wine

---

[15]   See Eifring (1995).

The formal approach used by Jayez and Rossari (1999) to account for the connectors *dans ce cas* and *donc* in French seems very promising. Intuitively, it can be extended to *jiu* whose meaning is closer to *dans ce cas* than to *donc*.

[16]   For the meaning differences between these restrictors, see Paris (1981).

If the informational role carried by the predicative phrase of (18) and (20) were identical, we would expect that from the interrogative example (19) one would form (21), because both examples are built on the same pattern. But (21) is ill-formed. As was the case above for focal subordinate clauses – see (11) – only a *shi bu shi* question is allowed. What is questioned is not the (lexical) verb *he* 'drink', but the quantity represented by the numeral expression *yi bei* 'one glass', cf. (22).

(21)　　*ta jiu/cai/zhi　　**you mei you** he　yi　bei jiu?
　　　　he only/only/only　have-Neg-have　drink one Cl. alcohol

(22)　　ta **shi bu shi**　jiu/cai/zhi　　he-le　yi　bei jiu?
　　　　he be-Neg-be　only/only/only　drink-Suf. one Cl. alcohol
　　　　has he only drunk one glass of wine?

Examples (23)-(26) below are very revealing. They are simple sentences which contain the same markers as necessary conditionals – *zhiyou* and *cai* in (06) or (11) above – and pattern exactly like them. An object which normally occupies the postverbal position as in (18)-(20) and (22) must appear preverbally or sentence initially when it is focussed by *zhiyou* 'only', cf. (23). In this case, it has wide scope.

(23)　　zhiyou bai　jiu　ta (cai) bu　he
　　　　only　white wine　he (*cai*) Neg. drink
　　　　it's only white wine that he does not drink

As the object is the carrier of new information, it is this very constituent – and only it – which is in the scope of the question. Hence the verb cannot display such a property : this is why (24)-(25) are ill-formed.

(24)　　*zhiyou bai　jiu　ta (cai) **he bu he**?
　　　　only　white wine　he (*cai*) drink-Neg.-drink

(25)　　*zhiyou bai　jiu　ta **shi bu shi** (cai) bu　he?
　　　　only　white wine　he be-Neg-be　(*cai*) Neg. drink

(26)　　**shi bu shi** zhiyou bai　jiu　ta (cai) bu　he?
//　　　　be-Neg-be　only　white wine　he (*cai)* Neg. drink
(11)　　is it only white wine that he does not drink?

What (26) above illustrates is that (i) *cai* has inverse scope: it does not precede the element it modifies and that (ii) surface word order cannot be equated with informational order. The quantified phrase *zhiyou bai jiu* 'only white wine' does appear in sentence initial position, but it does **not** display topical properties. Quite to the contrary, the place of *shi bu shi* shows that it is in the scope of the question, hence it bears the new information.

In the following I will show how the pairing of question/answer in simple sentences tells us directly where the new information is located in a Chinese sentence.

3. Constiuent questions and word order

As is very well-known, in Chinese, bare NPs which function as time adverbials can occupy different pre-verbal positions. For example, in (01)-(03) *zuotian* 'yesterday' occupies the sentence initial, the post-manner adverbial and the post-subject positions, respectively.

(01)　**zuotian**　ni　guyi　　　da-le　　ta
　　　　yesterday　you　on purpose　beat-Suf. he
　　　　yesterday you beat him on purpose

(02)　ni　guyi　　　**zuotian**　da-le　　ta
　　　you　on purpose　yesterday　beat-Suf. he
　　　you beat him on purpose yesterday

(03)　ni　**zuotian**　guyi　　　da-le　　ta
　　　you　yesterday　on purpose　beat-Suf. he
　　　yesterday you beat him on purpose

But corresponding to these three orders, only one question, i.e. (06), is well formed. (04) and (05) are not acceptable.

(04)　***shenme shihou** ni　guyi　　　da-le　　ta?
　　　when?　　　　　　you　on purpose　beat-Suf. he

(05)　*ni　guyi　　　**shenme shihou** da-le　　ta?
　　　you　on purpose　when?　　　　　beat-Suf. he

(06)　ni　**shenme shihou** guyi　　　da-le　　ta?
//　　you when?　　　　on purpose　beat-Suf. he
(03)　when did you beat him on purpose?

What (06) shows is where the base position for time constituents lies. The other orders show different informational and scopal properties. When it is in sentence initial/topical position, a constituent cannot be questioned, as evidenced by (04) (and (10) below). As is expected cross-linguistically, the scope of time constituents is wider than that of manner adverbials. (05) is ill-formed because *guyi* 'on purpose' has wider scope than *shenme shihou* 'when?'.

Locative phrases show even more clearly than time phrases how scopal and syntactical properties[17] interrelate. When it is in sentence initial/topical position, a locative phrase cannnot be questioned, as is evidenced by the constrast in grammaticality between (09) and (10). The unacceptability of (10) is parallel to that of (04). (09)-(10) are the interrogative counterparts of (07)-(08), which are individual-level/generic predications.

(07)　ta zai gongyuan-li pao-Ø　bu
　　　he at park-in　　　run-Ø　step
　　　he runs in the park

---

[17] Following Maienborn (1999), the locative phrase (LocP) in (07) can be labelled 'situation-external modifier', and the Loc P in (08) 'frame-setting modifier'.

(08)   zai gongyuan-li ta pao-Ø bu
        at park-in   he run-Ø step
        in the park he runs

(09)   ta **zai bu zai** gongyuan-li pao-Ø bu?
        he at-Neg-at park-in   run-Ø step
        does he run the park?

(10)   **zai bu zai* gongyuan-li ta pao   bu?
        at-Neg-at   park-in he run-Ø step

The answers to (09) are (11) or (12).

(11)   shi, zai gongyuan-li pao   bu
        be at   park-in   run-Ø step
        yes, he runs in the park

(12)   (shi, ta) zai
        (be he) at
        yes, he does

(13) below is the interrogative stage-level/episodic counterpart of (07) above: the verb is suffixed either by *-le* or by *-guo*, and (14) is its interrogative counterpart. The contrast between (15) and (16) shows that the locative in (14) cannot stand for new information, because (16) cannot stand as an answer to (14). What constitutes the domain of new information is the time reference, as evidenced by (15), where the answer simply consists in a suffixed verb.

(13)   ta zai gongyuan-li pao-**le/-guo** bu
        he at park-in   run-Suf.   step
        he has run in the park

(14)   ta zai gongyuan-li pao-**le/-guo** bu ma?
        he at park-in   run-Suf.   step Inter.
        has he (ever) run in the park?

(15)   pao-le/guo
        run-Suf.
        yes, he has

(16)   *zai (gongyuan-li)
        at   (park-in)

From the pair (07)/(13) we can conclude that in the absence of specific information about time reference, locative reference takes over as a candidate for new information. In the presence of time/aspectual reference, locative reference cannot take over. This is why (16) cannot constitute an answer to (13). The relative informational weight of time and locative constituents is illustrated in the contrast between (17) and (18). Time phrases must precede locative phrases. Such an order is a direct reflection of their relative scope.

(17)   ni   xianzai zai zhe-li   xiuxi
           you now at here   rest
           now you can rest here

(18)   *ni zai zhe-li xianzai xiuxi
           you at here   now   rest

The difference between (07) and (13), which apparently simply lies in the absence vs. presence of an aspectual suffix, is more complex than it seems. I have tried to show that the locative constituent *zai gongyuan li* 'in the park' plays a different informational role[18] in both examples. The iconic and the (isomorphic) scope principles that I have presented above in part I cannot account for such a difference.

Conclusion

In this paper I have tried to show that the interrogative surface word order of sentences, whether they are simple or complex sentences, is a direct reflection of where the new information lies in Chinese. I have mentioned three types of interrogation: interrogative words, verb-negation-verb questioning and *shi*-negation-*shi* questioning.

A difference between 'neutral' sentences and sentences containing a presupposition has stood out. In the presence of a presupposition, such as is the case with simple sentences containing focussing/restrictive adverbs or with complex sentences indicating a necessary condition, I have tried to show that the locus of new information does not stand where either formal or functional linguists have predicted it to appear. First, the fact that the question is asked with *shi-bu-shi* tells us that the sentence contains a presupposition. Second, the position of *shi-bu-shi* tells us on which constituent(s) it is associated. I have tried to establish a relationship between the surface word order of certain constituents, their scopal and informational properties.

Isomorphism in Chinese – whether it be a direct relation between world events and linguistic word order, or between word order and informational structure or between word order and the interpretation of scope – may not be as transparent as thought of until now.

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[18]   The relationship between the interpretation of locative phrases and aspectual markers is transparent in Korean. Korean has an indefinite aspectual marker *un il i ss* (noted Exp_1) and a definite aspectual marker *ess-ess* (noted Exp_2). In a *yes/no* question containing a locative phrase, the locative phrase is interpreted as the focus of the question only when the event is presupposed to have happened, i.e. when the experiental marker is definite. When the experiental marker is indefinite, the question is neutral. See Kim (1998) whose examples I have borrowed. (i) and (ii) correspond to Kim's (57a) and (ii) to a variant of (58), respectively.

    (i)   ne New York ey ka-n il i iss-ni?
           you New York to go Exp_1 Inter.
           have you been to New York? (neutral question)

    (ii)   ne (cinan cwu) New York ey ka-ss-ess-ni?
           you (last week) New York to go Exp_2 Inter.
           did you go to New York [or some place else](last week)?

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Prolific Domains and the Left Periphery[*]

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1. Introduction

The left periphery has enjoyed extensive study over the past years, especially drawn against the framework of Rizzi (1997). It is argued that in this part of the clause, relations are licensed that have direct impact on discourse interpretation and information structure, such as topic, focus, clause type, and the like. I take this line of research up and argue in favour of a split CP on the basis of strictly left-peripheral phenomena across languages. But I also want to link the relation of articulated clause structure, syntactic derivations, and information structure. In particular, I outline the basics of a model of syntactic derivation that makes explicit reference to the interpretive interfaces in a cyclic, dynamic manner.

I suggest a return to older stages of generative grammar, at least in spirit, by proposing that clausal derivation stretches over three important areas which I call *prolific domains*: the part of the clause which licenses argument/thematic relations (V- or θ-domain), the part that licenses agreement/grammatical relations (T- or ϕ-domain), and the part that licenses discourse/information-relevant relations (C- or ω-domain). It is thus a rather broad and conceptual notion of „adding" and „omitting" that I am concerned with here, namely licensing of material to relate to information structure, and the desire to find an answer to the question which elements might be added or omitted across languages to establish such links.

On a more programmatic note, one corollary of the proposal made here is the design of dynamic derivations which we can visualize roughly in (1) below.

Central to the notion of prolific domain as developed here is the condition that any given maximal phrase XP find a unique *address* in (at most) each of these domains. An address denotes the point of interpretation at the interfaces; informally speaking, this condition restricts occurrence of any given XP to one and only one position per domain. Derivations are constructed over domains. Implementing the notion of „multiple Spell Out" (Uriagereka 1999), I propose that the relevant pieces of information are shipped to the interfaces (ultimately, LF and PF) each time a domain is established. This suggests a modification of the standard T-model well-known from principles and parameters frameworks such as in (1), where the levels of PF and LF are fed successive-cyclically.

(1)

LEXICON

θ-domain

Spell Out

φ-domain

Spell Out

ω-domain

Spell Out

CONVERGENCE

PF   **LF**

2. Movement issues in left dislocation constructions

I start out by comparing similar looking instances of left dislocation in German where I present arguments to the extent that the two constructions not only are different on the surface, they also differ with respect to their syntactic derivation and landing sites.

2.1. Two types of left dislocation

At first glance, German seems to make available a number of syntactic forms that serve roughly the same discoursal function: a left-dislocated phrase, picking up a contextual topic of sorts, is resumed by a pronominal element.[1] The various alternatives simply seem to differ with respect to the position and form of the resumptive element, as well as in Case-matching between the left-dislocated phrase and the resumptive.

Some relevant instances of left dislocation are shown in (2):[2]

| (2) | a. | *Den* | *Wagen,* | *den* | | hat | Peter | gestern | verkauft. |
| | | the-ACC | car | that-ACC(RP) | has | Peter | yesterday | sold |

| | b. | *Der* | *Wagen,* | *den* | | hat | Peter | gestern | verkauft. |
| | | the-NOM | car | that-ACC(RP) | has | Peter | yesterday | sold |

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[1] I only consider the syntactic properties of left dislocation. For discoursal licensing of the different types, see Gundel (1974), Altmann (1981), Birner & Ward (1998), Prince (1998), Grabski & Frey (2000), and others.

[2] Not all orders in (2) are equally felicitous in all contexts, and further variations of HTLD can be construed. I also leave out further discussion regarding possible sub-divisions of HTLD, the impact of prosody, stress or intonation and related issues.

c. *Der   Wagen*, Peter   hat *ihn*   gestern   verkauft.
    the-NOM car   Peter   has that-ACC(RP) yesterday   sold
    'The car, Peter sold (it) yesterday.'

In (2a), the left-dislocated constituent and the resumptive pronoun match in Case, the resumptive is in high position, and it comes in the form of the demonstrative pronoun. Their referential identity is indicated through italics, and in addition, the resumptive is boldfaced; following standard convention, I refer to the resumptive as *d*-pronoun. There are good reasons to believe that the *d*-pronoun is in topic position and thus satisfies the verb second requirement of German matrix clauses. In this sense, the left-dislocated element seems to be outside the clause to some extent (or else, verb second were violated). A similar construction can be found in Icelandic which prompted Thráinsson (1979) to dub it „contrastive left dislocation" (CLD), a term that shall play no further role (but see Grohmann 2000a).

In (2b) and (2c), the two elements in question do not agree in case; the left-dislocated phrase is marked nominative (but can optionally match in Case with the resumptive; see Altmann 1981 for quite accurate characterization). Moreover, the resumptive can appear in either topic position or in the usual surface position of DP-arguments (presumably, its Case position), and it can surface as *d*- or *p(ersonal)*-pronoun. This construction is also known as *nominativus pendens* or „hanging topic left dislocation" (HTLD).

That the two constructions differ syntactically has already been argued in the literature at various times (e.g., van Riemsdijk & Zwarts 1974, Vat 1977, van Haaften et al. 1983, Grohmann 1997, van Riemsdijk 1997). We could say that the evidence comes in two flavours: one definitely relates to connectedness effects in CLD, which one could expect, given the observed Case-matching; the other contains diagnostics for movement independent of such reconstruction effects, which furthermore indicate what kinds of operations might underlie one, but not the other construction, and how the structural differences could be accounted for. In the following, I will go briefly through these, taken from Grohmann (2000a,b), which, in turn, expand on earlier observations from the works cited above.

2.2. Connectedness effects

I address connectedness issues first. I take the Case-matching property of CLD to be the starting point for an account of how and why CLD and HTLD differ (taking up ideas from van Riemsdijk & Zwarts 1974, Vat 1981, van Haaften et al. 1983). If only one construction forces the left-dislocated element and the resumptive to agree in Case, could it be possible that the dislocated element actually originates somewhere lower and undergoes movement to the left periphery, while the hanging topic is base-generated in its surface position? If this were the case, we would expect that at the relevant level of interpretation, LF, the left-dislocated element in CLD would be able to license relations that could not be licensed in case it is base-generated in the left periphery. Binding relations are a good case in hand.

If the left-dislocated element had indeed moved from a position lower in the clause in CLD, but not HTLD, we would expect differences with respect to reconstruction. The three cases I illustrate this with briefly are Weak Crossover, Principle A, and Principle C effects.[3]

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[3] Underlining marks the desired binding relations. The ungrammaticality judgements in this section are not necessarily absolute but refer to the intended interpretation.

(3) a.   *Seinen   Vater,*   ***den*** mag   <u>jeder</u>.
             his-ACC   father   RP likes   everyone.
             'His father, everyone likes.'

      b.   *Freunden   von <u>einander</u>,   ****denen**** erzählen <u>Herforder</u>   selten
             Lügen.*
             friends-DAT of   each.other   RP   tell   Herfordians rarely   lies
             'Friends of each other, Herfordians rarely tell lies.'

      c. * *Der Tatsache,   daß <u>Peter</u>   kein   Geld   hat, **der** mißt*   <u>er</u>
             the-DAT fact   that Peter   no   money   has RP measures   he
             keine Bedeutung bei.
             no   meaning   PRT
             '*The fact that Peter has no money, he doesn't attach any significance to.'

In each of the constructions in (3), the left-dislocated element and the high *d*-pronoun match in Case. In (3a), we can witness a Weak Crossover violation (see Postal 1971, Wasow 1972, Koopman & Sportiche 1982, and much work since): the subject-quantifier is not expected to bind the pronominal element inside the left-dislocated phrase unless it c-commands it at some point of the derivation; indeed, (3a) is fully grammatical, even under the bound variable reading. The intended meaning in (3b) is also available: the anaphor inside the left-dislocated phrase can take the subject lower down in the structure as its antecedent; again, this is not expected under Principle A of the Binding Theory (or its minimalist equivalent) unless it has moved from lower down. In (3c), we can witness the opposite effect: a referential expression inside the left-dislocated phrase cannot be coreferent with a lower pronoun; if the phrase were base-generated in the left-peripheral position, this would be unexpected and, in turn, if it had moved from lower down, this is exactly what we would expect.

The following sentences basically form minimal pairs: (4a-c) are the equivalent HTLD instances of (3), where the resumptive is a *d*-pronoun in high position, while (4a'-c') exhibit a *p*-pronoun as resumptive in low position. The grammaticality judgements are reversed this time. The same effect can be witnessed in the English translations: while CLD seems to be best expressed as a topic construction, HTLD mirrors English left dislocation.

(4) a. * <u>*Sein*</u> *Vater,* ***den*** mag <u>jeder</u>.
      a'. * <u>*Sein*</u> *Vater,* <u>jeder</u> mag ***ihn***.
          '*His father, everyone likes him.'

      b. * *Freunde von <u>einander</u>,* ***denen*** erzählen <u>Herforder</u> selten Lügen.
      b'. * *Freunde von <u>einander</u>,* <u>Herforder</u> erzählen ***ihnen*** selten Lügen.
          '*Friends of each other, Herfordians rarely tell them lies.'

      c.   *Die Tatsache, daß <u>Peter</u> kein Geld hat,* ***der*** mißt <u>er</u> keine Bedeutung bei.
      c'.   *Die Tatsache, daß <u>Peter</u> kein Geld hat,* <u>er</u> mißt ***ihr*** keine Bedeutung bei.
          'The fact that Peter has no money, he doesn't attach any significance to it.'

In other words, the three phenomena illustrated in (3) suggest that the left-dislocated phrase can reconstruct at LF to a lower position, low enough to allow the intended binding relations to take place (3a,b) or rule them out (3c); see also Fox (1999) on reconstruction. Given the contrast with the variations in (4), it can only be the left-dislocated element itself, especially as (4a-c) contain the same structure and the same resumptive in

the same position. This is the first piece of evidence that the left-dislocated element originates inside the clause.

2.3. More evidence for derivational and structural differences

But there are more reasons to believe this. In fact, the observations made here strongly suggest that the left-dislocated element in CLD originates in the same position in which the resumptive of HTLD originates, regardless of whether that ends up in high or low position, or whether it is a *d-* or a *p*-pronoun. They further suggest that the hanging topic is base-generated in its surface position. If this is so, the question arises how the resumptive gets where it is in CLD constructions. This question will be addressed in section 2.4 in terms of „copy spell out,“ and some consequences of the analysis will be explored within a framework outlined in the remainder of this paper.

Consider the following minimal pairs in (5) for CLD and (6) for HTLD:

(5) a. **Seinen Vater,* **den** haßt Berta die Tatsache, daß jeder mag.
        his-ACC father RP hates Berta the fact that every likes
        '*His father, Berta hates the fact that everyone likes.'

     b. *Den Kopf,* **den** hat Aaron der Berta gestern verdeht.
        the-ACC head RP has Aaron the Berta yesterday turned
        'Berta's head, Aaron turned yesterday.'

     c. Carl glaubt, *den Aaron,* **den** mag die Berta.
        Carl believes the-ACC Aaron RP likes the Berta
        'Carl believes, Aaron, Berta likes.'

(6) a. *#Sein Vater,* Berta haßt die Tatsache, daß **den** jeder mag.
     a'. *#Sein Vater,* Berta haßt die Tatsache, daß jeder *ihn* mag.
        '#His father, Berta hates the fact that everyone likes him.'

     b. **Der Kopf,* **den** hat Aaron der Berta gestern verdeht.
     b'. **Der Kopf,* Aaron hat *ihn* der Berta gestern verdeht.
        '*Berta's head, Aaron turned it yesterday.'

     c. **Carl glaubt, der Aaron,* **den** mag die Berta.
     c'. **Carl glaubt, der Aaron,* die Berta mag *ihn*.
        '*Carl believes, Aaron, Berta likes him.'

The a-examples contain an island (here, a complex noun phrase) across which the resumption relation between left-dislocated element and pronominal is intended to hold. Ross (1967) provided good reasons to assume that movement out of islands is not possible, a generalization that certainly holds for strong islands as employed here. In (5a), both are outside the island, but at least one element must be interpreted inside. If either one had moved, we would expect an island violation, and in fact the sentence is ungrammatical. In (6a), the resumptive is in a high position inside the island, in (6a') it is low. Neither construction is ungrammatical, as (5a) is, but neither can allow a bound variable reading. That is to say, the interpretation of both sentences involves one specific father. Note that if the resumptive were outside the island in (6a), the construction would be ungrammatical; furthermore, if Case-matching were to take place in (6a), thus creating a possible CLD (which, in case it has not yet been noted, may look ambiguous with HTLD), the bound reading is also not available.

In the b-examples, an *idiomatic chunk* is left-dislocated. According to Marantz (1984) and others, any displacement of idiomatic material indicates movement, not base-generation of the element in question, as the construction receives *its idiomatic interpretation* only in one relevant configuration. There are idiomatic expressions, such as the one used here which allow displacement of idiomatic chunks (at least in German). As the contrasts show, this applies only to CLD, not HTLD, suggesting that the left-dislocated element in CLD moves.

The *c-examples*, lastly, show that CLD may be embedded, while HTLD may not. As all cases of left dislocation in German require a verb second context, the only way to test embedding possibilities is to *put them in the context of* a so-called „bridge verb" which allows for a verb second complement clause. While the contrast between (5c) and (6c,c') does not really tell us what moves where, if anything, it *tells us something about the difference* in structure. We seem to be dealing with a root phenomenon (in the sense of Emonds 1970) in one case but not the other. The c-examples suggest that the left-dislocated constituent in CLD sits in a different position than in HTLD; moreover, given the evidence, we could say that it moves to a position different from where the hanging topic is base-generated.

2.4. An analysis for German left dislocation

I propose that the left-dislocated element in CLD is originally merged into the same position into which the resumptive is merged in HTLD. (In the case of argument-DP left dislocation, this would be the thematic position; other cases are considered in Grohmann 1997, 2000b). In HTLD, and also English left dislocation (which thus is a type of HTLD), the resumptive undergoes all necessary movements: overt Case-movement in German, covert in English, yielding the construction in which the resumptive is in low position, and optionally topicalization, where it moves into high position. The hanging topic itself is base-generated as an adjunct of CP. In CLD, on the other hand, the left-dislocated element undergoes overt topicalization and then moves to the specifier of CP. The resumptive is introduced derivationally, as the Spell Out of the topic copy of the left-dislocated element. This automatically gives us the Case-matching property of CLD, while it also allows for the possibility of reconstruction only in CLD, as well as accounts *for the other (non)movement* diagnostics we observed.

We can capture the different derivations for left dislocation of a direct object as in the following abstract representation (cf. (2)), *irrelevant steps excluded:*

(7) a. $[_{CP}$ XP C^0 $[_{TopP}$ ~~XP~~ → RP V $[_{TP}$ subject ...~~XP~~... $[_{VP}$ ...~~XP~~$]]]]$
a'. Den Wagen, den hat Peter gestern verkauft.

b. $[_{CP}$ [XP]$[_{CP}$ C^0 $[_{TopP}$ RP V $[_{TP}$ subject ...~~RP~~... $[_{VP}$ ...~~RP~~$]]]]$
b'. Der Wagen, den hat Peter gestern verkauft.

c. $[_{CP}$ [XP]$[_{CP}$ C^0 $[_{TP}$ subject V ...RP... $[_{VP}$ ...~~RP~~$]]]]$
c'. Der Wagen, Peter hat ihn gestern verkauft.

This is a good place to divert for a moment. Let me clarify two properties *about phrase structure* that play an important role in the version of minimalism adopted here. All movement is driven by the need to check formal features, for morphological reasons (Chomsky 1995). Features are checked in specifier-head configurations. In other words, all moved phrases must target a specifier position. I assume that nothing in principle rules *out adjunction (to maximal phrases)*, which in turn suggests that adjoined elements must be licensed in a different way from feature-checking. (Note that both assumptions

are needed independently under standard conceptions of successive-cyclic head move-
ment: complex heads are the result of head-adjunction, and the type of checking does not
take place in a specifier-head relation.) Without further discussion, let us assume that this
licensing falls out from semantic properties of adjunct and adjunctee. Firstly, thus, all
movement targets specifiers and adjoined positions cannot be the result of movement;
secondly, multiple adjunction is legitimate.[4]

We can illustrate these properties of X'-structure and movement as in (8), where a
dashed line indicates an adjunct (AdjXP) and a full line a specifier (SpecXP):

(8)

$$
\begin{array}{c}
\text{XP} \\
\diagup\diagdown \\
\text{Adj}\quad\text{XP} \\
\quad\diagup\diagdown \\
\quad\text{Adj}\quad\text{XP} \\
\qquad\diagup\diagdown \\
\qquad\text{Spec}\quad\text{X'} \\
\qquad\quad\diagup\diagdown \\
\qquad\quad\text{X}^0\quad\text{Compl}
\end{array}
$$
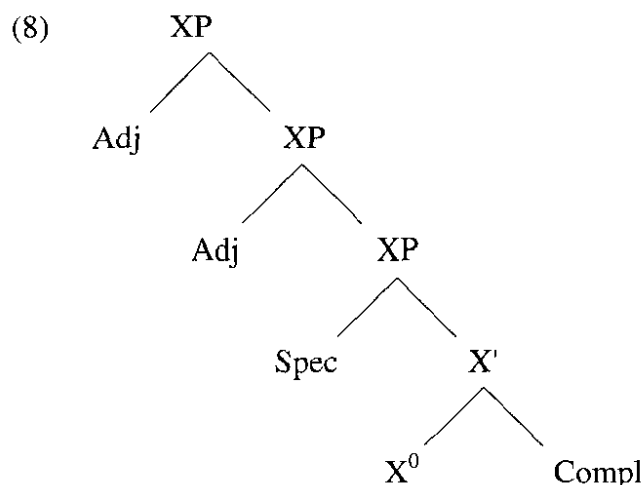
Returning to left dislocation, we can immediately see the benefits of a distinction be-
tween specifier and adjunct: it gives us the desired structural difference between hanging
topic and the left-dislocated phrase in CLD, while it, at the same time, expresses their
close relation. The former benefit would at least account for the different behaviour in
embedding, while the latter captures the apparent similarities in form and function be-
tween the two.

Roughly speaking, left dislocation is topicalization plus „a little extra," so to speak
(see Gundel 1974, Birner & Ward 1998 or Prince 1998, among others, for discussion of
pragmatic similarities and differences between the two which I cannot treat here). It thus
seems desirable to correlate the two up to a certain point. Under the current analysis, we
can express the similarity with the role of the topic position; the „extra step" can also
expressed: topicalization and CLD are both derived by a derivational process (move-
ment), where CLD entails topicalization and subsequent movement of the same element.
Given that CLD and HTLD are functionally very similar, it makes sense conceptually to
evoke only one position for left-dislocated elements, CP. Moreover, if only one moves
(and checks a relevant formal feature), we would like to express the difference between

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[4]   Multiple specifiers have become considerably fashionable in recent years (e.g., Ura 1994, 1996, Chom-
sky 1995, Richards 1997). This is no place to argue against this concept in any detail, so I have to refer
the interested reader to Zwart (2000) who argues convincingly against multiple specifiers of vP on
mainly empirical grounds, Zwart (1997b) who presents good empirical and conceptual evidence against
multiple specifiers of TP, or Hornstein (in press) who lays out shortcomings of multiple specifiers of
CP, for instance.
   Note that the option of multiple specifiers hinges on two assumptions: features are crucially distin-
guished between interpretable and non-interpretable ones, and heads may optionally bear one (or more)
additional uninterpretable feature(s) allowing for additional specifiers, as per Chomsky (1995:352ff.)
which has become something of a minimalist standard (Chomsky 1998b, 1999, and much related work).
In general, this approach has very little to say regarding actual orderings of constituents purported to be
related to one head.

moved and base-generated elements, and the above assumptions are able to do exactly that.

So far, we deal with a stipulation that allows us to express the differences between CLD and HTLD. There is, however, empirical support for the assumption that specifiers and adjuncts are different, and considering (7) and (8), we can make two predictions which can be captured neatly under the assumptions just laid out. If specifiers are unique and adjuncts are not, and if adjuncts are base-generated , we would expect – under the analysis of left dislocation schematized in (7) – that the moved left-dislocated element in CLD is unique, while the base-generated hanging topic is not. Moreover, we would expect both to co-occur, and, given (8), predict that any hanging topic must precede the left-dislocated element in CLD.

All these predictions are borne out. Although more than one left-dislocated element in a sentence takes away some of its naturalness, there is a clear contrast between the constructions in (9) and (10), where the single moved left-dislocated phrase is boldfaced:

(9) a. ?[*Der*   *Junge*]$_i$, [*der*   *Wagen*]$_j$, [*die*   *Mutter*]$_k$,   gestern   hat
        the-NOM   boy the-NOM   car   the-NOM mother   yesterday   has
        sie$_k$ *ihm*$_i$ *den*$_j$ geschenkt.
        RP-NOM RP-DAT RP-ACC   given
        'The boy, the mother, the car, yesterday she gave it to him.'

    b. ?[*Der Junge*]$_i$ [*die Mutter*]$_k$ [**den Wagen**]$_j$ *den*$_j$ hat *sie*$_k$ *ihm*$_i$ gestern geschenkt.
        'The boy, the mother, the car, yesterday she gave to him.'

(10) a. *[*Der Junge*]$_i$ [**den Wagen**]$_j$ [*die Mutter*]$_k$ *den*$_j$ hat *sie*$_k$ *ihm*$_i$ gestern geschenkt.
    b. *[**Dem Jungen**]$_i$ [*der Wagen*]$_j$ [*die Mutter*]$_k$ *dem*$_i$ hat *sie*$_k$ *ihn*$_j$ gestern geschenkt.

We can imagine more possible combinations of the relevant elements for (10), but they all lead to equal ungrammaticality, in stark contrast to (9), where multiple hanging topics are possible, obligatorily preceding the moved left-dislocated element.

Likewise, we can show that the moved element is indeed unique:

(11) a. *[**Dem Jungen**]$_i$ [**den Wagen**]$_j$ [*die Mutter*]$_k$ *dem*$_i$ hat *den*$_j$ *sie*$_k$ gestern geschenkt.
    b. *[*Die Mutter*]$_k$ [**dem Jungen**]$_i$ [**den Wagen**]$_j$ *dem*$_i$ hat *den*$_j$ *sie*$_k$ gestern geschenkt.

Again, while a number of possible analyses for the contrasts between CLD and HTLD come to mind, the most natural is the one which makes the best predictions, in addition to conceptual and empirical appeal. The present analysis of left dislocation, coupled with a possibly independently desired articulation of specifiers and adjuncts, can deal with a variety of predictions and captures the empirical facts, shown for convenience in (12) for (9b), where the resumptive element *den* is the spelled out form of the copy of *den Wagen* 'the car' which, in turn, has moved from lower down in the structure (ultimately, the complement position of the verb):

(12) [$_{CP}$ der Junge [$_{CP}$ die Mutter [$_{CP}$ *den Wagen* C^0 [$_{TopP}$ *den* hat-Top^0 [$_{TP}$ *sie ihm* ...]]]]]

But is this analysis really conceptually appealing? It makes one crucial assumption: an element may spell out its copy with a different PF-matrix. Under the Copy Theory of movement (Chomsky 1995, Nunes 1995), displacement is the result of copying and re-merging an element. Presumably for PF reasons (such as linearization; Nunes 1999), any copy left behind must be (phonologically) deleted; it remains there for interpretive proc-

esses (such as reconstruction). If we said that the resumptive is a spelled out *copy*, we would have to address this issue, and I do so in section 4. More importantly, however, we will have to ask ourselves what should motivate copy-spell outs, and whether we find *spelled out copies in cases other than CLD*. A possible answer for both will also be provided in section 4.

The answer I suggest to the question of how and why copies may be spelled out is that otherwise the attempted move would be illicit. Specifically, I propose that the resumptive in CLD can, actually must, be spelled out because it rescues a movement which is ruled out, namely movement of one element from one position to another within the same domain. Recall that the derivational history argued for here involves movement to TopP and subsequent movement to CP in the case of CLD. Arguably, both projections are part of what used to be simply CP or COMP. Over the past decade, arguments have accumulated that this part of the clause structure should be more differentiated (see, among others, Cardinaletti & Roberts 1991, Müller & Sternefeld 1993, Rizzi 1997), influenced by similar work on INFL (Pollock 1989 and much subsequent work). The projections proposed for a split CP include positions for *topic, focus, Wh-elements, typing particles* etc. In other words, we can find a common cover term unifying the function of what we may call the C-domain: discoursal properties.

If a split CP may be subsumed under the cover term „discoursal properties" and lead to an interesting approach to grammar, we might wonder whether other parts of clause structure could also be similarly identified. In the following I lay out a framework that splits clause structure into three prolific domains: the V-, the T- and the C-domain. I attempt to show that maximal phrases tend to occur only once in each domain, a sort of „XP-uniqueness." This tendency is maybe not as obvious as it is intuitive, but I have to refer the reader to chapter 1 of Grohmann (2000c) for detailed discussion of apparent counterexamples. Nevertheless, the idea behind the tripartition should become clear, and I assume that despite some details left out, it may provide us with an interesting way of thinking about dynamic derivations.

3. Reflections on phrase structure and the composition of clauses

Before motivating the explanation for spelling out certain copies, in the case of CLD and elsewhere, I present an idea on clause structure that aims at showing how maximal phrases tend to occur only once within each of the clausal areas ultimately dominated by *v*P, TP and CP, given more or less standard assumptions regarding their finer individual structures.

3.1. Concerning the V-domain

Let us start with the lowest part, the proclaimed V-domain. This domain can be unified in the sense that it licenses thematic properties. Uniqueness of XPs in this part of clausal structure can be shown relatively easily; I therefore restrict myself to one type of example.

One unambiguous case of XP-uniqueness in the V-domain comes from reflexivization, a phenomenon I will come back to below. Especially when we consider an analysis that links reflexives and their antecedents derivationally, as recently proposed by Hornstein (in press), the question arises why we could not merge an argument and move it around to achieve reflexive interpretation and then delete the lower copy as in other cases of movement.

To focus on English, we do not say (13a) to express (13b), relevant parts boldfaced:

be *v*/VP-related, not only semantically, but also structurally. Jackendoff (1972), for example, adjoins manner adverbs to VP, and this has been the standard way of integrating adverbs ever since (see e.g., Ernst 1984, forthcoming). Recent work by Alexiadou (1997) or Cinque (1999), on the other hand, seeks to dispense with adjoined positions altogether, much in the spirit of Kayne's (1994) antisymmetry approach to syntax, and argues that all adverbs are specifiers of separate projections.

As seen above, it is not unreasonable to assume not only that adjuncts in the classical sense exist, but also that they are different from specifiers at least in number (cf. (8) above). Thus, to the extent that certain adverbs are licensed in the V-domain, they must be adjoined to either VP or *v*P, and they may not move from one to the other position (see also below).

In sum, *v*P-internal XPs have one 'slot' only, regardless of our understanding of 'theta roles' (for example, configurationally as in Hale & Keyser 1993, as proto-roles per Dowty 1991 or qua formal features à la Boskovic 1994 and many others; see also note 5). One might, of course, be tempted to account for the effect of this condition by some form of the Theta Criterion (Chomsky 1981) which postulates a biunique relationship between theta roles and arguments, but we will see presently what other problems that runs into. Apart from the Theta Criterion, it is not immediately obvious to me how one would rule out the illicit movements in (17) on principled grounds. One goal of the proposal presented here is to derive (17) and analogous structures in the other parts, or prolific domains, as well.

3.2. Concerning the T-domain

Next, I briefly investigate whether we can find evidence that the same reasoning can be applied to the subsequent area in clausal structure, the functional layer ultimately dominated by TP. We can call this the T-domain which is characterized by licensing grammatical properties – and here I do not refer to the grammatical function of an element, but rather its formal features pertaining to Case- and ϕ-features.

In the T-domain, the empirical realm is not as clear-cut as in the V-domain. For one, we have to deal with more projections and hence more possible positions for XPs: while the V-domain makes available three positions for up to three elements, the T-domain arguably has more than three possible (specifier) positions, even under a conservative estimate, and consequently many more possible movements to rule out. For this reason, I only sketch a possible line of reasoning for the T-domain; the idea behind it should be clear, and concentrating on the left periphery, we should keep the discussion to a minimum, even though some of the more controversial cases can be found in this part of the clause.

Nevertheless, a similarly paradigmatic case can be constructed for the T-domain as for the V-domain, and in fact it has been evoked to partly motivate the Case Filter. Just as all arguments must receive one and only one theta-role, (at least) all noun phrases need to be Case-marked, and they can only be Case-marked once, i.e. receive one morphological Case. If Case-marking is the reflex of a spec-head relationship, and if all (at least, structural) Case is checked inside the T-domain,[7] we could recourse to XP-uniqueness for the illicit structures in (18):

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[6]   Contra Koizumi (1994) and follow-ups who assume a 'split VP-layer' in the sense that functional projections such as AgrP are contained within. Assuming that Case/agreement properties must be dissociated from thematic ones, not only functionally but also formally (Chomsky 1993, Haeberli 1995), any such attempts must be rejected on independent grounds; more reasons will be given in the remainder, where different properties are ascribed to entire domains (viz. the thematic V-domain vs. the grammatical T-domain).

[7]   Note that within Checking Theory, the traditional distinction between structural and inherent Case is not so easy to maintain anymore. Moreover, if people like Zwart (1991, 1993, 1997a) are on the right track,

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(18) a. * **Den** **Vater** mag sein(en) Sohn.
the-ACC father like his-NOM(ACC) son
intended meaning: 'The father likes his son.'

b. * Der Vater gibt **sein Sohn** das Buch.
the-ACC father gives his-ACC son the-NOM/ACC book
intended meaning: 'The father gives his son the book.'

(18a) can be envisioned to follow a derivation where the object stays in its theta-position and the subject moves to check accusative Case first, and then moves on to the canonical subject position. In (18b), the indirect object would have checked accusative Case first before moving on to the Case-position of the direct object. In other words, we want to rule out that one expression may check two Case-features within one clause. Alternative derivations for (18) do not come to mind, especially not if multiple specifiers are banned.

We can further hypothesize, on the basis of (17), what kinds of movement within the T-domain should be illicit; hence, what we would be looking for are ill-formed structures of the sort illustrated in (20), given the hierarchy in (19) for the T-domain:[8]

(19) AgrSP > TP > ModP > AgrOP > NegP > AspP > VoiceP

(20) a. *
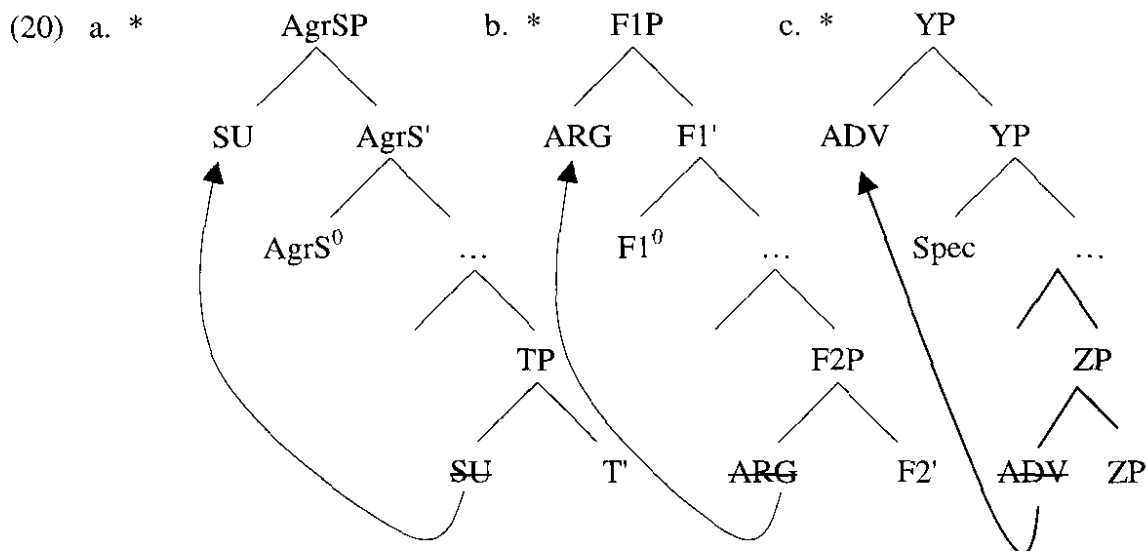
We could envision a split position for the SUbject, such as AgrSP and TP (as proposed by, e.g., Bobaljik & Jonas 1996, Bobaljik & Thráinsson 1998, but not as adopted here),

even some languages traditionally viewed SOV are underlyingly SVO (such as Dutch, German); this analysis forces overt movement of all argument DPs and could possibly be motivated by the need to check Case (nominative, accusative, dative etc.). However, if this is the driving force behind A(rgument)-movement in these cases, it should also apply to PPs, which also sit outside VP at Spell Out. Whether PPs can be argued to need Case (cf. Hornstein 1995) or whether some other feature need to be evoked is outside the scope of the paper. For simplicity's sake, let us assume that all DP and PP arguments must raise to some position in the T-domain to receive Case, either overtly as in German or covertly as in English (which is another story altogether).

[8] I employ (19) for expository purposes, as most approaches to functional structure in this part of the clause deal with some version of this assembly. Extensive studies have been conducted since Pollock's (1989) seminal work and before. Independently, I assume TP to be the highest projection in this domain, the border between the T- and the C-layer. The standard argument is that T is the locus of the EPP, the first possible projection being able to license a minimally well-formed, finite clause. As the discussion below indicates, I dispense with Agr-projections altogether, but also with recent attempts to motivate multiple specifiers. Some details will be addressed presently; for the remainder of the paper, I have some version of the structure in (19) minus AgrSP and AgrOP in mind when I refer to the T-domain.

where different features are checked.[9] However, if subjects may target either position, we would expect that if the position of a given XP in this part of the clausal structure is unique also, no subject should be allowed to move to both, as indicated in (20a). Likewise, no other ARGument should move to one functional projection F1P and then to another F2P within the area between CP and vP, as shown in (20b). Moreover, ADVerbs, arguably maximal projections, are not expected to move from one position to another within the T-domain, neither from adjoined to adjoined position (illustrated in (20c)), nor from a specifier to another (on a par with (20b)) – in other words, adverbs do not move at all (within any given prolific domain).

(20c) is immediately ruled out under the conditions on movement laid out above: if movement is driven by feature-checking and if feature-checking is the result of spec-head configurations only, movement to an adjoined position is ruled out. A number of approaches to grammatical phenomena in terms of adjunction via movement come to mind, and they all call for an alternative approach – to name but one, scrambling in German and Japanese has often been analysed as adjunction (to VP or IP). This view is not tenable anymore, not under the present set of assumptions, but technically, not under any minimalist theory that wants to derive all displacement on the basis of morphological needs. Many more cases can be constructed to illustrate that both (20b) and (20c) should be ruled out. All things being equal, this should thus also apply to the structure (20a), where transitive expletive constructions might pose a problem under either the minimalist version of Chomsky (1993) incorporating AgrSP and TP or Chomsky (1995) which employs multiple specifiers (see also note 9).[10]

As alluded to above, a unified account of XP-uniqueness of the sort witnessed so far is not readily available in current minimalist state of the art. While the uniqueness effects inside the V-domain we have seen above could plausibly be accounted for by the Theta Criterion, it is unlikely that something similar could take care of similar effects in the T-domain – unless we want to evoke a (possibly large) number of unrelated conditions, such as the Case Filter to rule out certain instances of (20b) and semantic restrictions banning others, for example.

Moreover, it is not quite clear that we should want to stick to a (strict) manifestation of such principles in the first place: recent work argues convincingly against the Theta Criterion, which we will come back to presently; likewise, for a derivational system, any

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[9] The authors just mentioned, alongside others, argue not only for two subject positions (for certain languages), but also suggest that Case- and ϕ-features be dissociated, i.e. checked in different positions. While I am sympathetic to the view that θ- and ϕ-features should be licensed in different positions (Chomsky 1993, Haeberli 1995), I am not so sure that the same should apply here. Arising complications for the present view involve analyses of quantificational structures of Beghelli & Stowell (1997), transitive expletive constructions of Chomsky (1995), Bobaljik & Jonas (1996) and others, or French passives with participle agreement (as pointed out to me by Susi Wurmbrand). The obvious route to go here is to extend Chomsky's (1998a, 1999) notion of „Agree," possibly even further than Castillo et al. (1999) or Grohmann et al. (2000) do; one can thus imagine that rather than moving through intermediate positions, certain scopal relations could be the result of long-distance feature-checking in some instances. I have to leave out a discussion of these and ask the reader to suspend disbelief for the time being. (Alternatively, one could make the case that the rather T-domain itself consists of two domains, such as a quantificational one, as suggested by Anoop Mahajan, p.c.)

[10] Transitive expletive constructions (such as witnessed in Icelandic or Dutch), and multiple subject constructions in general (Japanese, Korean, Chinese, Hebrew etc.), have been Ura's (1996) and Chomsky's (1995) main motivation to postulate multiple specifiers in the T-domain, specifically for SpecTP. I find the explanation there to be little convincing, as it does not only need additional assumptions on feature-checking to derive multiple specifiers (see note 4), it also needs to say something else that results in the correct ordering between expletive, subject, possibly adverbs, and verb (see Zwart 1997b for detailed criticism). Richards' (1997) condition that additional specifiers „tuck in" runs into independent difficulties both in cases of A-movement as well as A'-movement, which I cannot treat here (see Grohmann 2000c, Hornstein, in press).

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stipulated *filter* or *criterion* based on structural representations is an unwelcome result. Furthermore, should we want to apply (some form of) „Fewest Steps" to account for derivational economy and locality (cf. Zwart 1997b), domain-internal movements are not welcome. While I leave open a finer analysis of problematic cases, I consider the idea of XP-uniqueness in the T-domain agreeable, at least conceptually, which can potentially be justified empirically.

3.3. Concerning the C-domain

Extending the foregoing discussion, the obvious question to ask now is, of course: if we adopt a more articulated structure of COMP, do we find the same restrictions (seen above, at least in spirit)? In other words, given that the behaviour of XPs can possibly construed to involve only one occurrence per domain, can we make the case for this being so in the C-domain also?

Let us start with something like (21) as our structure of the C-layer, slightly modified from Rizzi (1997:297), and set the stage for the remainder (see Grohmann 2000c for more):[11]

(21) CP > TopP* > FocP > TopP* > FP

On analogy with the illicit moves depicted in (17) and (20), (22) contains a sample of movements that would violate the uniqueness condition:

(22) a. * CP b. * TopP c. * FocP

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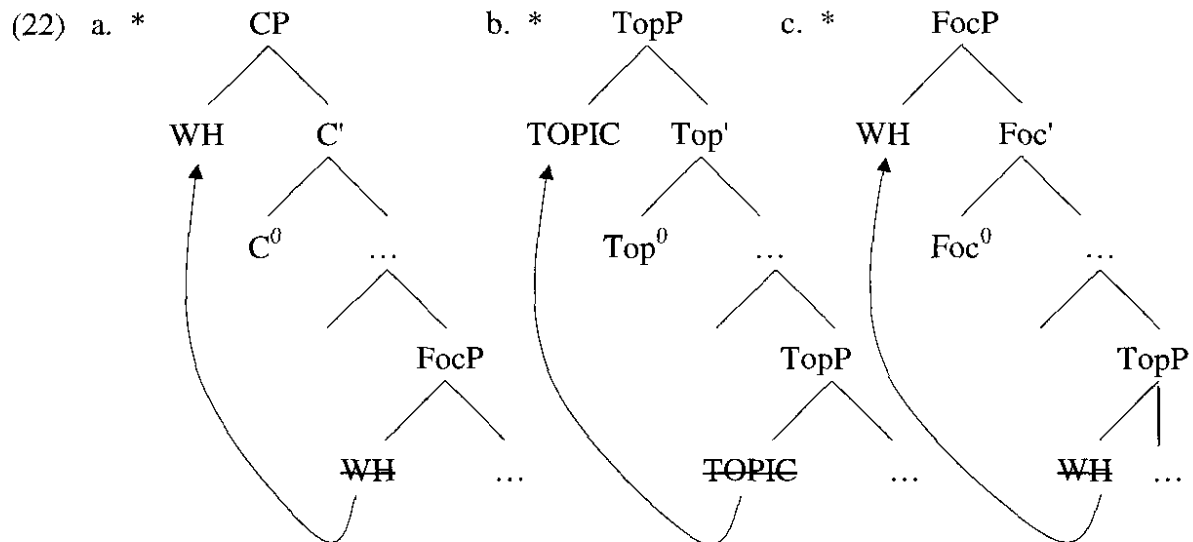
[11] Without further discussion, I take Rizzi's ForceP to be CP, the ultimate landing site of complementizers and clause-typing elements. We will see below that certain instances of left dislocation are best understood as involving SpecCP (and AdjCP)—and in these instances, we can barely speak of „illocutionary force" to be the trigger for movement (or licensing condition for adjunction). Here, I also do not follow Rizzi in assuming that finiteness must be anchored in the C-domain. This has also been argued for by Platzack (1998, in press) and others, following to some extent Enç (1991). If it turns out that Fin(iteness)P is needed after all, so be it; for the empirical coverage considered here, it plays no major role. I assume, however, FP, of fame from Uriagereka's (1995a,b) treatment of clitics in some Romance dialects and quasi-topic/focus constituents; see also Grohmann (in press) on the role of FP in West Germanic pronominal systems and Grohmann & Etxepare (to appear) on its presence in root infinitival constructions across languages. And as hinted above, Top(ic)P should ideally be understood to be parameterized, whether it follows Foc(us)P or precedes it. An alternative, or additional path to follow, would be to identify two semantically distinct types of topic that occur in this domain. Again, the exact details shall not concern us here further.

As with the T-domain, the empirical proof of the illegitimate moves within the C-domain shown in (22) does not come that easily as it does for the V-domain, given that we have room for more variables. However, if there is anything to XP-uniqueness applying over certain parts of the clause, and if the domains constituted by the „core functional heads" v, T and C (Chomsky 1999) behave alike in certain respects, the prediction is that the steps portrayed in (22a-c) should all be ill-formed.

Regarding (22a), the move from SpecFocP to SpecCP could possibly be envisioned under the following set of assumptions regarding Wh-questions: Wh-phrases, being inherently focused, target SpecFocP, if they move at all (i.e. not in Wh-in situ languages). CP serves as the locus of clause-typing (Cheng 1991) and could plausibly held to be responsible to host all Wh-elements at the relevant level of interpretation, i.e. LF.

However, these assumptions are not shared here. Rather, Wh-phrases indeed target FocP but need not, hence must not, move further; neither do non-moved Wh-phrases undergo LF-movement. Clause-typing is done in C, by movement of a Q-morpheme from some lower position (viz. Hagstrom 1998, and also Boskovic 1998, Grohmann 1999, Citko & Grohmann 2000; see Boeckx 1999a for empirical arguments against Cheng's typology). It is [Q] that universally moves to C, and Wh-phrases may (English) or may not (Chinese) move to FocP, or anywhere below (Serbo-Croatian). SpecCP is thus not a possible landing site.[12]

Hence, only (24b) is an admissible representation for the relevant part of (23):

(23)   Who did Mary kiss?

(24)   a. * [$_{CP}$ who C^0 [$_{FocP}$ ~~who~~...]]
        b.   [$_{CP}$ [Q]-C^0 [$_{FocP}$ who ... ~~[Q]~~ ...]]

An instance of (22b) can be envisioned if we followed Rizzi (1997) to the dot and assume that FocP is couched in between two topic projections. Assume that (25a) and (25b) are both well-formed Italian sentences (Rizzi 1997:295-296), and that *domani* 'tomorrow' is a topic in both cases, with *questo* 'this' being the focused constituent:

(25)   a.   Credo   che a Gianni,   QUESTO, **domani**,   gli dovremmo dire.
             believe.1SG that to Gianni   this.FOC tomorrow   him should.1PL say
             'I believe that to Gianni, we should say THIS tomorrow.'
        b.   Credo   che **domani**,   a   Gianni, QUESTO, gli dovremmo dire.

If XP-uniqueness can be shown to apply across the board and also to be a desirable empirical observation, *domani* must move to TopP in one step from wherever it originates, and not pass through a lower TopP inside the C-domain, as illustrated in (26):[13]

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[12]   In fact, I argue that SpecCP serves a very limited function with respect to hosting possible elements; left dislocated phrases are one type that may appear here. Apart from that, this position is largely confined to being an escape hatch for extraction.

[13]   Independently of the notion „XP-uniqueness," if TopP may occur to both sides of FocP in one language, any element targeting the higher TopP should have moved through the lower one, given that locality on movement is subject to „Shortest Move," as is commonly assumed (cf. Chomsky 1995). This is not so if we adopt Zwart's (1997b) „Fewest Steps." In any case, from a semantic point of view, it does not make much sense to say that a language may split information structure into something like background – focus – background; it thus seems to be desirable to tease apart different notions of 'topic' and consider the elements to the left and to the right of the focused constituent in the Italian C-domain illustrated in (25) to be intrinsically different, something that exceeds the focus of this paper by far.

(26) ... *che* [$_{TopP}$ *domani* [$_{TopP}$ a Gianni [$_{FocP}$ QUESTO [$_{TopP}$ *~~domani~~ gli* [$_{TP}$ ...]]]]]

A technical implementation of XP-uniqueness would not only rule out (22c) in theory (for so-called 'Wh-topics'; see Wu 1996, Grohmann 1998), but also empirically. As the paradigm in (27) suggests, a Wh-phrase in English that possibly occupies a structural topic position – regardless of whether it moved to TopP first or last – is ruled out (adapted from Rizzi 1996:96; cf. Lasnik & Saito 1992).[14] Given that English Foc is verbal, at least in Wh-questions (cf. (27b)), and that Top is not (cf. (27a)), (27c) cannot feature the Wh-phrase in FocP; on the other hand, Wh-elements in English move to FocP overtly, so that we could not say that *whom* in (27c) sits in SpecTopP at Spell Out.

(27) a. Who believes that **Mickey Mouse**, the Americans *will* elect for president?
     b. Who believes that **whom** *will* the Americans elect for president?
     c. *Who believes that **whom**, the Americans *will* elect for president?

Naturally, the constructions presented here could also be ruled out by conditions other than XP-uniqueness. A number of operator criteria come to mind (such as the Wh-Criterion, Focus Criterion or Topic Criterion), and so do a number of semantic restrictions and conditions (such as the ill-formedness of an element to be focus and topic of a sentence at the same time). Again, however, we would have to enforce further, different principles on top of the Theta Criterion, Case Filter, and others.

4. Tripartite clause structure

In the following I lay out a rough formal partitioning of clausal tripartition, referring to these three areas as prolific domains, where the term „prolific" alludes to the fact that each domain is made up of more articulate structure; I also address „XP-uniqueness" in more detail.

4.1. Prolific domains

Capitalizing on the uniqueness observations for XPs across the clausal domain seen above, the core functional heads *v*, T and C could mark the boundaries for separate prolific domains:

(28) a. **V-domain** *($\theta\Delta$)*: part of the derivation where thematic relations are licensed
     b. **T-domain** *($\phi\Delta$)*: part of the derivation where grammatical relations are licensed
     c. **C-domain** *($\omega\Delta$)*: part of the derivation where discoursal relations are licensed

The layer responsible for selection requirements, call it „thematic relations," encompasses the lexical verbal head V, the functional verbal head *v* and their respective complement and specifier positions; this part allows for up to three arguments, the internal

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[14] Notice that this seems to disarm my own previous analysis (Grohmann 1998), where it was argued that Wh-phrases in German all undergo movement to TopP ('topic' understood in a liberal sense to license „discourse-restricted quantification," the fact that even bare Wh-phrases seem to be discourse-dependent), before the higher Wh-phrase then moves on to FocP (to type the clause). This blow in the face is only apparent, as that approach followed Cheng's (1991) analysis of clause-typing. By having the Q-morpheme do this part of information licensing, nothing forces „double movement" of any Wh-phrase anymore, neither overtly nor covertly. A more refined analysis can be found in Grohmann 1999, 2000c, and Citko & Grohmann 2000.

arguments (commonly understood as 'goal' and 'theme'; cf. note 5) and the external one ('agent'). Given that up to the point of completion of vP (by merging the external argument into Spec$v$P, glossing over possible adverbial modification or other adjuncts) – but *not beyond* – each XP is limited to one occurrence, this layer pertains to the thematic domain, or θ-domain. (As a shorthand, I often refer to this part as the V-domain or simply θΔ.)

Beyond vP, a layer of functional projections emerges that licenses verbal morphology and agreement, from aspectual, negative and certain modal properties up to tense; TP, thus, *is the projection that ultimately dominates the articulated INFL/S*. The projections shown in (19) serve the main purpose to license verbal morphology (overtly or covertly). (See Baker 1988 on the Mirror Principle and cross-linguistic evidence for a hierarchy of verbal morphology.) This licensing is arguably achieved by checking through successive-cyclic head movement. Moreover, the subject is licensed in SpecTP in spec-head configuration; *dispensing with separate Agr-projections*, all properties pertaining to Case-, agreement- and φ-features would thus ideally be checked somewhere in this domain. Let us call the need of (argument) XPs to move into the T-domain grammatical or φ-licensing, making this part the φ-domain.

Running through further projections, and following the standard notion of successive head-movement, we reach the C-layer next. Initially conceived of as COMP or S', empirical evidence forces a more intricate technical analysis, such as the finer articulation of CP proposed by Rizzi (1997). I assume a structure such as (21), making available positions that express discoursal properties (such as point-of-view, topic, focus or illocutionary force). On analogy with the other two prolific domains, this part represents the ω- or C-domain.

So far, the concept of prolific domains presents a stipulation: clauses come in three layers with different properties over which a specific condition holds. But we can find possible support for this particular split in verbal morphology. Natural language possesses a myriad of verbal inflection through overt morphological marking, such as tense, aspect, voice or agreement of sorts (with subject, object or both) – all of which are construed with what I call the T- or φ-domain; interestingly, though, there are no unique morphological markers defined over the θ-domain (such as agent-, goal- or theme-inflection) or the ω-domain (such as Wh-, topic- or focus-inflection).[15] In the following I aim at fleshing out this stipulation so as to make the concept of prolific domains to be real, well-motivated and derived. I further modify the concept of XP-uniqueness to capture dynamic derivations more adequately.

In sum, we can recreate (1) in slightly different form below, explicitly enough to capture the foregoing discussion and sketching out the framework I propose here:

(29) A prolific domain ΠΔ is a part of the derivation („dimension") which identifies certain super-categories of information and provides the interfaces with it; each ΠΔ consists of articulate internal structure, interweaving with derivational operations, namely at least:
a.   V-/θ-domain: VP, vP
b.   T-/φ-domain: VoiceP, AspP, NegP, ModP, TP
c.   C-/ω-domain: FP, TopP, FocP, CP

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[15] Except, possibly mood; this concept is directly linked to other properties, however, which we can abstract away from for now. It does not really matter whether this state of affairs indeed holds. The reasoning is not meant to constitute an argument for anything, but can be simply viewed as another indication of the three-way split along the lines suggested here.

The two levels of representation, PF and LF, are mapped cyclically: each time a prolific domain is established, it gets spelled out, i.e. shipped to the interfaces.

4.2. Dynamic syntax

Now that we have observed that a tripartition of clause structure into three domains seems at least plausible, we should ask ourselves what we are doing this for. If each of these prolific domains serves to license different properties, and if some form of XP-uniqueness within a domain is real, what do prolific domains do then?

The intuitive answer I would like to give here is that a prolific domain ΠΔ establishes local licensing of properties that, as different as they are, can be subsumed under a common header for each ΠΔ, roughly as sketched out in (29) and the preceding discussion. Moreover, we can build on the implicit relation between the (syntactic) derivation and the (interpretive) interfaces, much as implied by the diagram in (1) and the prose in (29) above. One of the major results of minimalist inquiries into natural languages, I take it, is the abandonment of superfluous levels of representation – regardless of whether the system is derivational or representational. Thus, what was believed to be indispensable components of syntactic structure, the levels of D- and S-structure, can safely be dispensed with under a different, reduced set of assumptions (such as Checking Theory, regardless of imperfections in design and implementation). The derived T-model of the minimalist era links the lexicon (or a relevant subpart, the numeration) to the output (what we pronounce) through syntactic processes; basically, Merge, Copy, Move and Delete (see Chomsky 1995, Nunes 1995, Hornstein, in press). The indispensable levels of representation, LF (feeding the conceptual-intentional interface) and PF (feeding the articulatory-perceptual interface) are mapped from the derivation, after the point of Spell Out.

As has been argued recently, there is nothing in the minimalist framework that forces us to view LF and PF as levels of representation that are fed uniquely at one specific point. Remember, the standard conception is that the derivation unfolds, where Merge and Move apply (as well as Copy and Delete, presumably), up to the point of Spell Out. This is where the material gets pronounced, which may be affected by PF-movement. That is to say, at the point of Spell Out, the level of PF kicks in, allowing for further operations which have no effect on the interpretation. At that point, the structure is also sent to LF, where further operations apply to compute the semantic interpretation. If, as Aristotle remarked over two millennia ago, language is the pairing of sound and meaning, the split between the LF- and the PF-component is intuitive and desirable.

However, it is not so clear that they are both derived independently of the derivation. Uriagereka (1999), for example, suggests that the operation Spell Out, under standard conceptions a curiously unique operation, should be iterative just as other operations are. All instances of Merge and Move apply up to convergence, as needed; so why not assume that Spell Out also applies multiply, as needed?

One way to make this work is to designate specific points in the derivation that force spelling out – just as we have specific points in the derivation where we merge from the lexicon (numeration) or the derivation (workspace). For Uriagereka, every time a left branch is created, this sub-part is spelled out. Spelling out applies cyclically, just as other operations. The operation Spell Out freezes the phonological material of the relevant string. It ships its information to the interfaces (PF and LF). One advantage of spelling out left branches is an explanation for so-called „left-branch effects" found in many lan-

guage (cf. Huang 1982). However, it is not so clear that all languages forbid such extraction.[16]

I take the idea of multiple Spell Out to be advantageous but relocate the point of Spell Out. Every time a ΠΔ is established, relevant phonological and semantic information gets shipped to the interfaces. The levels of LF and PF are as dynamic as the derivation itself: they are fed successive-cyclically and hence force spelling out of partial derivations. There is a mapping from the derivation to the PF- and LF-interfaces as the derivation unfolds (cf. (1)).

As mentioned in note 16, Chomsky (1998a, 1999) also adopts some version of multiple Spell Out. In this extension, certain sub-parts of the derivation are relevant for the interfaces, which he calls 'phases'. The two functional heads v and C induce a phase, much as they formed a barrier in earlier GB-frameworks (Chomsky 1986), but T does not. A phase spelled out bans any material from inside it to move out – unless it finds a local escape hatch, which basically boils down to moving to the edge of a phase and raise further. It is easy to see that this assumption crucially builds on the existence of multiple specifiers, which I, along with many others, find neither empirically nor theoretically well motivated (see discussion above and note 4). If multiple specifiers do not exist, moving to the „edge of a phase" cannot mean much either. The idea, however, is as intuitive and welcome as Uriagereka's: as the derivation unfolds, conditions apply to sub-parts and need to be encoded. I thus take the concept of both multiple Spell Out and phases well-grounded and extend them here.

I see three possible points in the derivation which could be mapped to the interfaces:

(30) a. spell out left branches
      b. spell out phases
      c. spell out prolific domains

(30a) arguably overgeneralizes, as Stepanov (2000) argues. (30b) cannot be derived, as the previous paragraph shows; strictly speaking, it might also be too weak, given recent criticism of limiting phases to v and C (Uriagereka & Martin 1999, for example, make the point that T should also induce a phase). This leaves us with (30c). Note that nowhere is it implied that all three possibilities are mutually exclusive, or to be more specific, the concept of 'phase' and 'prolific domain' may well go hand in hand. Nothing hinges on the uniqueness of either one. This shall be material for future endeavours, however.

If one consequence of a prolific domain is that its information is shipped to PF and LF (and the two levels of representation are thus dynamically derived), we can finally say something salient about „XP-uniqueness," that is why certain elements may not move within a ΠΔ. Given that each domain arches over separate pieces of information (roughly, thematic, grammatical and discoursal information, respectively) – although a multitude of features may be checked (such as different types of theta-features, Case- and

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[16] This presentation is, of course, a simplification of Uriagereka's framework. However, it is a fact that not all languages are as sensitive to left branches as English. Stepanov (2000) finds a systematic spit between SOV and SVO languages in that the former allow extraction out of subjects, whereas both groups disallow extraction out of adjuncts, which seems to be the real generalization. Stepanov accounts for the impossibility of extraction out of adjuncts by merging adjuncts post-cyclically (see also Stepanov 1999). This is not the time and place to criticize the empirical difficulty of his findings (which languages like Dutch or German pose), nor to investigate the theoretical basis of post-cyclic merging. In short, it is not clear that Uriagereka's desired effects can really be derived in an empirically adequate fashion without further assumption, nor is it obvious that Stepanov's proposal really fixes any shortcomings. Admittedly, the idea that only prolific domains are spelled out is even vaguer. Suffice it to say, questions arise and remain, but so they do other implementations of multiple Spell Out (such as spelling out phases as in Chomsky 1998a, 1999).

agreement-features, topic- and focus-features etc.) – we can conceive of XP-uniqueness as the requirement that a given element may only bear the relevant specifications, or provide an „address,“ for one domain.

However, we have already seen an apparent exception to this condition, namely the case of spelling out the topic copy in CLD. In the next section, we will see that this is not a unique occurrence of spelling out copies, and that we need to further modify XP-uniqueness.

4.3. Domains, dynamics and derivations

Thus far, I have suggested that clausal structure, beyond its intricacies of functional projections and feature-checking, can be divided into three parts, or prolific domains. It should be obvious that this is simply an attempt to capture old ideas – there is nothing new or revolutionary about the concept of a tripartite structure. However, I try to go beyond and derive some interesting observations, namely that XPs are unique within a given domain. In this section, we will see some exceptions and implement these to redefine this condition, which in the ideal case would be derived rather than stipulated. Further on along the road, there is the claim that interpretation is derivational also, mapped successive-cyclically as the syntactic derivation unfolds. This might have strong consequences for future endeavours of the syntax-discourse interface, a larger issue of possible interest that I can only touch on tangentially.[17]

Things need not work this way. Platzack (in press), for example, also argues for a tripartition of clause structure, interestingly along the same lines pursued here.[18] The framework he develops differs from the present one in one important aspect, however. While the model laid out here is dynamic and derivational, Platzack's is representational. Again, it is not quite clear how much longer this split among generativist syntacticians should be continued, but conceptually, there is one major difference between our two frameworks: Platzack treats each spelling out of a domain (though he does not use these terms) as establishing a separate level of LF-representation, while my derivation reaches a single LF through cyclical feeding of spelled-out material. Thus, he maps the syntactic derivation (or representation) of the clause not only to three domains – which he also takes to be „levels“ in the formal sense – but also each domain to a separate LF, while mapping the three domains, in turn, to a single PF-level. More needs to be said regarding the difference of levels vs. components of representation (see e.g., Uriagereka 1999, Uriagereka & Martin 1999), but for the time being we can take the advantage of the present framework over this representational alternative in holding fast to two levels of representation which yield the desired pairing of sound and meaning.

To come back to derivations and the status of XP-uniqueness, let us consider one further case where it seems to be violated, in addition to CLD. This time, the violation takes place in what we can now characterize as the V-domain. If there is anything to the idea behind unique addresses of maximal phrases for interface reasons, we would have good reason to assimilate both cases of copy-spell outs and modify XP-uniqueness in a possibly unified way.

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[17] The idea of feeding the interpretive components from the syntax is not necessarily shared by all researchers. Boeckx (1999b), for example, argues for opportunistic interfaces where the syntax does not feed the interfaces, but the interfaces feed on the syntax and take what they need for interpretation.

[18] Christer Platzack and I have developed our frameworks completely independent of each other. What is striking, then, is that not only do we pursue the three-way cut, which is nothing new as already mentioned, but also assign the same properties to the three domains (in addition to calling the sub-parts „domains“ of sorts).

Hornstein (in press), reviving the original proposal by Lees & Klima (1963), argues for a derivational account of reflexivization. The idea behind this is clear: given that antecedent and reflexive denote the same entity, and that there seem to be strict locality conditions, it should be possible to derive the identity between the two syntactically, not solely semantically (also Lidz & Idsardi 1998). As we have seen in section 3.1, the derivational analysis cannot work on purely syntactic grounds – otherwise, *John likes* should be a well-formed structure allowing for the interpretation *John likes himself* which could be syntactically saturated (by copying the relevant features of *John* in theme position and re-merging them into the agent position). Hornstein proposes a derivational procedure such as the following:

(31) a.   [ᵥ· likes **John**-self]
      b.   [ᵥₚ **John** likes [ᵥₚ tᵥ ~~**John**~~-self]]
      c.   [ᵥₚ **John** likes [ᵥₚ tᵥ **himself**]]]

John is indeed merged into theme position, but comes with the reflexive morpheme *self* which, as a bound morpheme, needs phonological material to be attached to. *John* then raises to agent position and spells out its trace, giving *self* a PF-matrix to be satisfied.

Syntactically, this part of the derivation is well-formed. *John* first checks its theta-feature 'theme', then its second theta-feature 'agent'. Hornstein builds on his earlier arguments that the Theta Criterion should not exist and that thematic properties constitute the same morphosyntactic reflex as any other formal features.[19] Spelling out the copy is not only necessary for the reflexive morpheme to combine with, it is also driven by Case-needs. Crucially, it is *self* that bears a Case-feature, and this needs to be checked. By copying the lower instance of *John*, all other features are transmitted to the higher copy. The result of spelling out is that *himself* can then undergo Case-movement.

Under our set of assumptions here, the movement from one position to another within the same prolific domain should be ruled out by „XP-uniqueness," the very observation that led us to consider a formal tripartition in terms of prolific domains. The easy way out would be to reject the derivational analysis of reflexives. However, as we have seen in section 2, something very similar seems to be going on in certain cases of left dislocation in German.

We could then capture both the framework laid out here and the derivational approach to reflexivization by understanding XP-uniqueness as follows. Movement of one XP within the same domain seems to be legitimate if it results in spelling out the copy. Note further that the spelled out copy looks different from the original, i.e. we do not say *John likes John* (similarly, we spell out the copy of the topic as a pronominal in CLD). In other words:

(32)   *Condition on Domain-Exclusivity (CDE)*
     No maximal phrase XP may have more than one address identification AI per prolific domain ΠΔ, unless it has a drastic effect on the output, i.e. the relevant copy of XP has a different form at PF – which is the result of spelling out the copy.

It is clear that it is the PF-matrix that is at stake, not the LF-features, given that the two copies are otherwise identical. This captures the Case Filter of GB-times, namely that only overtly realized material can check Case. I will thus assume the CDE to look as in

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[19]   Relevant literature includes Boskovic (1994), Lasnik (1995, 1999), Boskovic & Takahashi (1998), Hornstein (1998, 1999), Manzini & Roussou (2000); see Hornstein (in press: chapter 5) for a more accurate discussion of the details of his approach to reflexivization.

(32), and assume further that is falls out of the framework presented here and need not necessarily be a stipulated condition over derivations (or even representations).

The PF-relevance of spelling out copies also follows from Hornstein's account. As Juan Uriagereka (p.c.) points out to me, however, his analysis might be challenged by the following. Given that spelling out is forced for Case-reasons, we would expect that if the relevant position would not necessitate subsequent Case-checking, that element should be able to freely move to the higher position; all it would do is check an additional theta-feature.

(33)   The fish ate.

A relevant example is (33). The verb *eat* is usually a transitive predicate (cf. (34a)). The internal argument can, however, be left out, as in (33) which would be understood maximally as (34b), with the restriction that the eaten material be something that is generally considered to be edible and hence a possible candidate for default food by the eater. Given that some fish can eat other fish, and some fish even eat other fish of the same type, (33) should be possible to be interpreted as either (34c) or (34d). The former interpretation is possible, but the latter is not: *the fish ate* cannot mean that it ate itself (or they ate themselves).

(34) a.   The fish ate algae.
      b.   The fish ate something or other.
      c.   The fish ate the fish.
      d.   The fish ate itself/themselves.

As Hornstein's approach solely considers properties and extensions of formal feature-checking mechanisms (theta- and Case-features in this case), with spelling out of copies being driven purely by the need to have overt material that can later on check Case, this state of affairs is not expected. The only way I can think of – suggested by Norbert Hornstein (p.c.) himself – is to assume that the two instances of *eat* in (33) vs. (34) are different. In one case, it is a regular transitive verb, and in the other it is a detransitivized verb. It is not clear that we want to go that route – if we do, fine. But if we want to maintain that there is only one lexical entry *eat*, with the caveat of optionally deleting a highly restricted type of internal argument, we would have to find a different solution.

Interestingly, we can adopt Hornstein's analysis pretty much as is, with the additional pay-off that this puzzle is taken care of. If spelling out of copies is not necessarily driven by further formal features only, to be checked at a later point in the derivation, but rather by a repair strategy to rule in an otherwise illegitimate move, the lack of interpretation of (33) in terms of (34d) falls out: an XP would move within a prolific domain without spelling out is copy with a different PF-matrix. I thus adopt the most important ingredients of Hornstein's analysis;[20] coupled with the discussion so far and the analysis of CLD, this serves as empirical support to for the CDE in (32) and a unified account for spelling out copies.[21]

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[20] I leave open an adequate, cross-linguistic analysis of reflexivization, as it would drift us too far away. Naturally, not all languages work like English. Obvious differences can be found in Finnish and Kannada, for example. Both languages mark the verb with a special reflexivizer, and Kannada also employs a reflexive XP. One can make sense of these variations in terms of a domain-driven view of syntax by incorporation of the spelled out copy into the verb (Finnish) or of only a relevant feature in, with the spelled out copy itself remaining PF-visible (Kannada). Other possible solutions exist, none too far removed from the basic premises of this framework, but a wider range of languages would have to be subjected to investigation to go into more detail. I thank Jonathan Bobaljik, Jeff Lidz and Malte Zimmermann for discussion.

[21] Note that technical details regarding economy of movement and locality conditions are left out. The picture painted so far strongly suggests to favour Fewest Steps (Zwart 1997b) over Move/Attract Clos-

5. Left-peripheral phenomena

Lastly, I consider the left periphery again, looking at some cross-linguistic variation regarding the structure of the C-domain, especially syntactic instantiations of topic and focus.

5.1. Topic constructions

For English topicalization, as illustrated in (35), we need to assume a specific topic position, following the assumptions made throughout. If the subject typically sits in SpecTP at Spell Out and if TP marks the boundary from T- to C-domain, there are only two possible positions for topics: adjoined to TP or somewhere higher. However, given that argument topics are theta-marked in the V-domain and Case-marked in the T-domain, they have to derive from movement – and movement can only target specifier positions, with adjoined positions reserved solely for base-generated elements only. This has been argued for a number of languages already (e.g., Müller & Sternefeld 1993, Rizzi 1997, and many others), and thus refutes the traditional analysis of Chomsky (1977) under which the topicalized constituent is adjoined to COMP, identified with its gap through movement of a null operator; the same should hold for fronted, arguably topicalized, adverbs for which a null operator-movement analysis sounds even less plausible.[22] As a consequence, English topics are neither adjoined to TP, nor to some higher projection, but move to some specifier position above TP.

(35) a. **Mary**, John kissed./John kissed **Mary**.
      b. **His mother**, everyone likes./Everyone likes **his mother**.
      c. **Carefully**, the dog opened the food bag./The dog opened the food bag **carefully**.

I take the landing site for moved topics to be SpecTopP. Leaving aside a discussion of different types of 'topic' – where not all elements interpreted as topics have to be derived by movement – , TopP is a suitable candidate as it doubtlessly feeds the interpretive component directly. Given our discussion of prolific domains, in particular the C-

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est (Chomsky 1995). Moreover, given a remarkable account of puzzles from GB-times, such as parasitic gaps or control into adjuncts, as explored by Hornstein (1998, in press), there are indications that Attract F does not fare as well as Move F, the original concept of displacement in minimalism (Chomsky 1993). We can thus understand the need of an XP to move higher as the need to license its relevant feature-information (concerning thematic, grammatical and discoursal properties). Economy forces one step per domain, leaving aside the caveat of spelling out copies along the way. These issues are only tangential to our present interests.

As a side remark to the reader who might still be stunned by the absence of discussion of (transitive) expletive constructions; the standard raising analysis of the associate is not the only approach on the market (see Moro 1989, 1997, and others). In either case, the CDE is able to take care of such apparent violations, should it turn out that associate raising is correct: it simply is the reverse effect at LF, namely movement of an element to another, within the same domain, to establish interpretive identity. I will leave it at that for now.

[22] Further discussion of adjoined elements needs to be postponed; see Stepanov (1999, 2000) for an idea that could do without movement of adjuncts. (Cinque (1999) does this too, but remember that for him, all adverbs are specifiers, an assumption not assumed here—and neither do I assume close to 40 projections in the T-domain to derive positions.) I can only think of either (optionally) higher adjunction, or movement from the base-generated site—which would then have to target a position in the C-domain, and this position must be a specifier, taken all assumptions so far into consideration (which also can leave out non-cyclic adjunction).

domain, it thus seems very plausible to locate TopP inside the topmost layer, the discoursal domain.

In German, under the view of prolific domains, dynamic derivations, and the syntax-discourse interface drafted here, we arguably deal with many instances of *topicalization*, in matrix as well as in embedded clauses. Holding fast to the assumption that subjects target SpecTP (unless further specified, be it through focus-, topic- or other features), and given that both TP is typically the highest projection of the T-domain and intra-domain movement is ruled out, the subject serves as a good indicator of domain-relation: roughly, every (moved) element preceding the subject must have raised into the C-domain:[23]

(36) a. [$_{TopP}$ Der   Frau   hat   [$_{TP}$ Martin ~~der Frau~~ das   Buch   gegeben]
       the-DAT woman has   Martin   the-ACC book   given
       'The woman, Martin gave the book to.'

    b.   [$_{TopP}$ Das Buch hat [$_{TP}$ der Martin der Frau ~~das Buch~~ gegeben]

The structural differences between these two prototypical (syntactic) topic-constructions in English and German allow for a first *parameterization* between the two languages: rather than saying that one language employs movement and the other base-generation of the topic, the English topic-head is *not endowed with verbal features*, while the German one is. In other words, the verb raises overtly to Top only in German (see also section 3.3).

While the rough structural representations in (36) are quite uncontroversial for German matrix clauses (cf. Müller & Sternefeld 1993), the identification of material in pre-subject position as topic in embedded clauses is not (see Haider 1990 and many others). The current framework does not allow for any other option, a state of affairs I have independently argued for in previous work (cf. Grohmann 1996). Note that this account extends to cases of *multiple fronting* over the subject, also claimed to be topicalization in earlier work.

(37) a.   ... daß [$_{TopP}$ der Frau [$_{TP}$ der Martin ~~der Frau~~ das Buch gegeben hat]
      '... that the woman, Martin gave the book to.'

    b.   ... daß [$_{TopP}$ das Buch [$_{TP}$ der Martin der Frau ~~das Buch~~ gegeben hat]
      '... that the book, Martin gave to the woman.'

(38) a.   [$_{TopP}$ Der Frau hat [$_{TopP}$ das Buch [$_{TP}$ der Martin ~~der Frau~~ ~~das Buch~~ gegeben]
    b.   [$_{TopP}$ Das Buch hat [$_{TopP}$ der Frau [$_{TP}$ der Martin ~~der Frau~~ ~~das Buch~~ gegeben]

Traditionally, the relevant parts of (37) and (38) are the result of „scrambling" (Ross 1967; see Haider 1993, Müller & Sternefeld 1993, Corver & van Riemsdijk 1994, Müller 1995, and references for some recent approaches). We now have fair support for the distinction between pre-subject scrambling and post-subject scrambling. The main problem with the phenomenon of „scrambling" that should have emerged by now, of course, is the

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[23] For ease of exposition, I only illustrate with arguments. I take it that the issue of integrating adverbial modifiers is not yet solved, even within the framework of prolific domains (see also notes 16 and 22). More needs to be said regarding the linearization of left branches in general, both with respect to each other and with respect to heads. It is thus not clear whether the temporal adverb *gestern* 'yesterday' in (i) is adjoined to TP, as it should (roughly following the adverb literature), or derived some other way.

   (i) a.   Gestern hat Peter den Hund gefüttert.
        'Yesterday, Peter fed the dog.'
      b.   Peter hat gestern den Hund gefüttert.
        'Peter fed the dog yesterday.'

difficulty of implementing the standard adjunction-analysis into any (minimalist) framework. By understanding pre-subject material to have raised into the C-domain, we can circumvent at least part of the problem (see also Grabski & Frey 2000 for interesting tests). While more than one element may move to TopP, locality constraints seem to exist which I cannot discuss here.[24]

This brief discussion illustrates one possible consequence of the framework sketched here. While arguably every sentence expresses discoursal notions (such as 'topic' or 'focus'), not every languages needs to do this syntactically. One major difference between a language that allows for word order variation like German, and one that does as not readily, such as English, is thus whether discourse-relevant properties have an impact on the syntax. While much of current syntactic thinking clings to the autonomy of syntax and denies pragmatic traits to enter syntax proper, one can scent some form of „autocracy of syntax" where such notions are shoved off to other parts of the grammar altogether. What might look nice on paper has actually serious consequences for the empirical adequacy of the theory. It appears to me to be the case that by excluding such properties, the range of phenomena that can safely be accounted for shrinks to a bare minimum of (some) instances of A-movement and Wh-movement; it has been argued at one time or another that phenomena such as verb second (or second position phenomena in general), scrambling, object shift, and others best be excluded from formal syntax and explained away by „PF-effects," while notions such as a topic and focus might be relevant to semantics and pragmatics, but not syntax.

If we turn around our picture of the grammar and pursue some version of what I have suggested here, there is another way of thinking, one that does away with such a radical view without losing view of an independent syntactic component. What if languages differ in that some allow discoursal identification on surface structures only, while others allow feeding the syntactic component with this type of information? Then languages like German would make more use of the C-domain than languages like English, a tendency that is generally acknowledged and even further expressed in this article. Other empirical domains where an articulated inclusion of the C-domain could possibly make a difference are weak pronominal elements (as argued for by Grohmann, in press) and multiple Wh-questions (under the approach of Grohmann 1998, 1999, Citko & Grohmann 2000).

A more salient discussion warrants for a formal mapping from syntax to discourse, extending models on information structure presently available (e.g., Vallduví 1992, Lambrecht 1994, Büring 1997, Erteschik-Shir 1998 and others). But we can easily envision an elaboration of the diagram in (1) that integrates the syntax-discourse interface even further, possibly parameterized (recapturing the old division of configurational vs. non-configurational languages from Hale 1983, for example).

5.2. Focus constructions

I finally want to consider some cross-linguistic data regarding focus constructions and basically show how structural focus positions are different from structural topic positions; moreover, this section serves to show that nothing should be odd about having multiple C-related projections, but rather that an articulated structure of the C-domain such as proposed by Rizzi (1997) and others may bear fruitful results.

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[24] It should be pointed out that I do not necessarily identify all pre-subject positions as topic positions; other factors might play a role also. What is crucial is that part of the analysis that (a) moves the fronted elements into specifier positions and (b) identifies the broad area of location as the C-domain, both falling out straightforwardly of the program sketched here so far.

First, we can distinguish (at least) two instances of focalization (cf. É. Kiss 1998, Zubizaretta 1998, and ample references cited): (purely) prosodically marked focus on the one hand which is rather low in the clause structure, roughly corresponding to the default argument position, and syntactically marked focus which is derived by movement and presumably targets a high position. While the former strategy can be found in most, if not all, languages, the latter does not necessarily apply to all languages – and for many, it is simply an option. Thus, languages like Hungarian or Basque typically mark their focused constituents by some fronting operations, while English and German apparently tend to not do so.

In the latter, we can distinguish focus-in situ from non-focused in situ elements (where „in situ" refers to the default position at Spell Out, presumably in the T-domain, or Case-position, for German and in the V-domain, or theta-position, for English). Consider (39):

(39) a.　Martin　hat das Buch　komplettgelesen.
　　　　　Martin　has the book　completely　read
　　　　　'Martin read the book completely.'

　　b. *　Martin hat komplett das Buch gelesen.
　　　　　*'Martin read completely the book.'

A prosodically unmarked argument may not appear to the right of manner adverbs. If these modifiers are adjoined to vP, we have a straightforward argument for overt argument movement in German, and the fact that the landing site must precede such adverbials. Abstracting away from the adverbial position, it is unlikely that the stress pattern which marks the argument as focus directly affects syntactic movement, given that the focused element may appear in a number of positions, each arguably expressing the same truth-conditions:

(40) a.　Martin　hat komplett　DAS BUCH　gelesen, nicht　die Zeitung.
　　　　　Martin　has completely the　book　read　not　the newspaper
　　　　　'Martin read THE BOOK completely, not the newspaper.'

　　b.　Martin hat DAS BUCH komplett gelesen, nicht die Zeitung.
　　c.　DAS BUCH hat Martin komplett gelesen, nicht die Zeitung.

Another way of capturing the facts is to say that focus may appear in default argument position in the T-domain, in some left-peripheral position in the C-domain, or in a position where it could not appear otherwise (i.e. were it unstressed, a case I cannot discuss further).

Interestingly, under a simple-COMP approach, there would be no easy (syntactic) way to distinguish the following contrast:

(41) a. *　Kein Buch/　Wenige Bücher/ Kaum　ein Buch　hat Peter　gelesen.
　　　　　　no　book　few　books　barely　a　book　has Peter　read
　　　　　　*'No book/Few books/Barely a book, Peter read.'

　　b.　Jedes Buch/　Viele　Bücher/ Die meisten Bücher hat Peter　gelesen.
　　　　　every book/　many　books/　the most　books　has Peter　read
　　　　　'Every book/Many books/Most books, Peter read.'

(42) a. KEIN BUCH/WENIGE BÜCHER/KAUM EIN BUCH hat Peter gelesen.
'Peter read NO BOOK/FEW BOOKS/BARELY A BOOK.'
'It was no book/few books/barely a book that Peter read.'

b. JEDES BUCH/VIELE BÜCHER/DIE MEISTEN BÜCHER hat Peter gelesen.
'Peter read EVERY BOOK/MANY BOOKS/MOST BOOKS.'
'It was every book/many books/most books that Peter read.'

We can see that some quantified expressions can be topicalized, while others cannot. In particular, decreasing quantifiers *resist topicalization in both English and German, as shown in (41a), while increasing quantifiers may be topicalized, as in (41b). Naturally, this makes a lot of sense semantically, but syntactically COMP could be there in both cases. We can now capture this difference and ban TopP as a possible landing site for some elements. This has interesting consequences in other areas, which I explored in detail for multiple Wh-questions (Grohmann 1998, 1999, reanalysing a set of data first discussed by Beck 1996). Moreover, the fact that the option of fronting is not readily available to English focus, as the translations suggest, might be related to the verbal character of Foc: while it attracts the verb in German, it does not so in English, at least not in declarative contexts. By understanding the different C-heads to be verbal or not (in the sense used here), we might also be able to say more about the verb second nature, namely that it is really movement to the highest possible head, given that both Top and Foc are verbal. Naturally, we have already seen one C-head that does not seem to attract the verb in German: C (or Force in Rizzi 1997) in left dislocation. Further discussion must be postponed, but as the following suggests, this line of reasoning might help us further in left-peripheral constructions in other languages.

Hungarian, for example, marks focus in a special position, obviously inside the discourse-prominent C-domain (data from É. Kiss 1995:16):

(43) a. János (és Mari) jelest kapott.
John (and Mary) A+ got
'Janos and Mari got A+.'

b. JÁNOS *<kapott> (ÉS MARI) <kapott> jelest *<kapott>.
'It was John and Mary who got A+.'

(43) shows us that focus fronting and verb raising go hand in hand: focusing the subject from the unmarked structure (43a) forces the inflected verb to move high up, too. The fact that it cannot split up the focused constituent, as in the coordinated variation indicated, suggests that this fronting is not PF-induced (attaching to the first word or something like that), but targets a syntactic head position. It lies near to understand this head position as the head that licenses the specifier for the fronted focus. In other words, we can (43b) to mean that focus targets SpecFocP whose head is filled by the finite verb (as in (42) in German).

If the finite verb raises in one case of focusing – and it raises high, as the contrast in (43) shows – , we expect that it always raises in focus constructions. Thus, we can assume that the verb and the focused constituent in (44) are in FocP. FocP seems to be rather high in the structure, given (43); as we can see from (44), focus is not the highest projection, though (É. Kiss 1995:17):

(44)   A   Háború és békét   TOLSZTOJ írta.
        the   War   and Peace Tolstoy   wrote
        'It was Tolstoy who wrote *War and Peace.*'

In Hungarian, background information ('topic') may precede new information ('focus'). This can be accommodated by the structure that Rizzi (1997) assigns to the C-domain; under our set of assumptions we would say that TopP is parameterized to precede FocP in Hungarian (but not German, for example, as we will se shortly). This, then, also means that Hungarian is not a verb second language, and we might get some mileage out of parameterizing the verbal nature of C-related heads.

Basque is another language that moves focused constituents, preferably high up. Etxepare (1997) distinguishes „emphatic focus" from „contrastive focus." In the former type of construction, no material may intervene between focused element and the verb-auxiliary sequence; in the latter, material may be fronted in between the two (by an operation that need not concern us here). Compare the following (adapted from Etxepare 1997:115-116):

(45) a.   PATATAK   **maite** **ditu**   Jonek.
            potatoes   love   AUX   Jon
            'It is potatoes that Jon loves.'
      b. * PATATAK   Jonek   **maite** **ditu.**

(46) a.   MIKELI, ardoa   **ekarri** **diote.**
            for-Mikel wine   bring   AUX
            'It is for Mikel that they brought wine.'

      b.   JONEK, ardoa   **ekarri** **du.**
            Jon   wine   bring   AUX
            'It is Jon that brought the wine.'

Etxepare suggests that Emphatic Focus, such as in (45), is related to illocutionary force and shows operator properties; here, we have raising from INFL (the T-domain) to COMP (the C-domain). Contrastive Focus, on the other hand, as illustrated in (46) is interpreted internal to the T-domain and shows no operator properties. While the characterization seems to be correct, the names for the two types of focus seem to be mixed up, where contrastive focus commonly refers to the type of focus that moves into the C-domain (see É. Kiss 1998 for recent discussion). In any case, under the current approach we could integrate both moved constituents in the C-domain, one targeting a verbal projection, also correlating with Wh-movement, the other not. (Thus, Foc is verb-related in Basque, the other projection is not; it does not play a role whether this is TopP, as tacitly assumed by Etxepare (1997), or some other FP, perhaps the one argued for by Uriagereka (1995a,b) and many other authors since.)

If the CDE from (32), and the current framework in general, is on the right track, the accounts sketched here follow immediately: the focused element in Hungarian or Basque cannot move into the T-domain to check agreement features and then move on to a focus-prominent position in the same domain, but must move into the next higher C-domain.

Vice versa, if the C-domain relates discoursal properties to the syntactic computation in some languages, movement for that purpose is expected to target this domain. As a case in hand, consider the following (from Horvath 1995:31).

(47) a.   Eldobtam   az   újságot.
           away-threw-I the newspaper
           'I threw the newspaper away.'

    b.   AZ ÚJSÁGOT dobtam el.
         the newspaper threw-I away

    c. * AZ ÚJSÁGOT eldobtam.
    d. * Eldobtam AZ ÚJSÁGOT.

(47a) is a possible word order of subject noun phrase and verb plus particle without focusing. When the subject is focused, the finite verb must follow immediately, leaving the particle in situ, as in (47b). The contrast with (47c) shows that the particle cannot move along, or alternatively, the focused constituent must move to a specific focus position, not some possible intermediate projection allowing the verbal complex to occupy the same position as in (47a). (47d) shows clearly that the focused element has to move syntactically. In other words, if focus is marked syntactically, it must target the C-domain.

Interestingly, both Hungarian and Basque have been characterized as „non-configurational" at some point (see É. Kiss 1995 and papers therein). All other things being equal, the approach laid out here could give us new clues as to how the notion of configurationality might be best understood. This section has argued for a parameterized understanding of the verbal character of some C-related heads, and the tendency has emerged that languages either place the finite verb in Foc or they do not, and the same applies to Top, independently from Foc.

6.   Conclusion

In this article, I presented a programmatic sketch of a framework that combines earlier conceptions of clause structure (VP, INFL, COMP) with recent developments regarding finer articulated, functional structure internally (cf. Pollock 1989, Hale & Keyser 1993, Rizzi 1997). It was necessary to abstract away from certain details (see Grohmann 2000c).

It was suggested that clauses be split into three prolific domains, areas of clause structure that are themselves made up of elaborate structure: the V-domain, licensing thematic relations, the T-domain, licensing grammatical dependencies, and the C-domain, licensing discoursal properties. A dynamic approach to derivations outlined here assumes the operation Spell Out to apply more than once (cf. Uriagereka 1999), modified here for each prolific domain. The articulatory-perceptual interface and the conceptual-intentional interface, our pairing of sound and meaning, are mapped from the levels of PF and LF, respectively. These levels, in turn, are also dynamic in that they are fed cyclically each time a part of the syntactic derivation is spelled out.

All things being equal (and they need to be, given the lack of sufficient discussion), every XP may only occur once per prolific domain, at which point it constitutes the address for interpretation in each domain. A caveat was introduced, empirically motivated by derivational accounts of reflexivization and a variety of left dislocation, namely that an XP may move from one position to another within the same domain, just in case it spells out its copy (as a pronominal element, in general: PF-distinct from the original). I also discussed some issues relating this framework and left-peripheral phenomena across languages, noting that languages may employ discourse-relevant information to feed syntactic movement.

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Some Remarks on Word Order and Information Structure in Romance and Greek

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Abstract

This paper is a preliminary comparative study of the relation between word order and information structure in three Null Subject Languages ((NSLs) Spanish, Italian and Greek). The aim is twofold: first I seek to examine the differences and the similarities among these languages in this domain of their syntax. Secon, I investigate the possible derivations of the various patterns and attempt to localize the differences among these languages in different underlying syntactic structures.

1. Introduction

In the literature on Romance (see e.g. the references in Zubizarreta 1998, Costa 1998) and on Greek (see the references in Alexiadou & Anagnostopoulou to appear) it has been noted that the information structure of a given sentence is reflected in the manner in which phrases are structured in the sentence, and moreover that it is crucially related to its intonational structure. Thus languages such as Spanish, Italian, Portuguese and Greek have been argued to bear a certain resemblance to so called discourse configurational languages, as the different word order patterns convey different information.[1] I turn to a brief demonstration of this property below.

A basic fact about Romance and Greek is that postverbal subjects in these languages are not equivalent to preverbal subjects from the point of view of information structure, i.e. they tend to constitute 'new' information. Consider the Greek sentences in (1). Once the DP 'a letter' has been introduced in the discourse, i.e. it conveys 'old' information, it can no longer occupy a postverbal position:

(1)　a. i Maria　mu estile ena grama. to grama　　irthe　simera
　　　　　Mary-nom me sent a letter-acc. the letter-nom arrived today

　　　b. i Maria　mu estile ena grama.　%irthe to grama　　　simera
　　　　　Mary-nom me sent　a letter-acc. arrived the letter-nom today

On the other hand, tests diagnosing the 'new' information status of a certain DP show that preverbal subjects are not acceptable in contexts where they convey 'new' information. For instance, standard answers to the question 'what happened?' in Greek involve inverted orders (see Alexiadou 1999 and references therein). In this case all information is new:

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[1]　In this literature there are a number of discourse related notions that have been brought into the discussion: topic/comment, categorical/thetic judgements, old information/new information.

- what happened?

(2) a. espase   o Janis   ti lampa
       broke-3sg John-nom the lamp-acc
       'John broke the lamp'
   b. *o Janis espase ti lampa
   c. eftase ena grama   apo to Parisi
      arrived a letter-nom from Paris

If one considers that notions such as 'old' and 'new information' can be articulated with the grammatical notions of topic and focus which are grammatically encoded in sentence grammar, then preverbal subjects behave like topics, while postverbal subjects are part of the focus. On this view, VSO orders in Greek and Spanish can be referred to as *all focused* (see for instance the contributions in Kiss (1995) and the discussion in Zubizarreta (1998)).

With respect to the term focus, note that Rochemont (1986) and Kiss (1995) distinguish between two types of foci: *contrastive focus* which contrasts the subset of a set of alternatives with the complement subset and *presentational/information focus* which conveys only new information, as in (2) above. Others assimilate the two notions. It has been argued that phrases linked with contrastive focus generally involve exhaustivity readings and their special status is the result of an operator movement to a designated position. On the other hand, phrases associated with information focus remain in situ. As we will see in detail, word order in Greek crucially distinguishes between the two types in the sense that the example in (2a) above is associated with presentational focus only.

Interestingly, this difference in information structure briefly described above correlates with specific and different syntactic structures. Thus preverbal subjects in Greek and Spanish can be shown to occur in a sentence peripheral A'-position (see Contreras 1991, Barbosa 1994, Dobrovie-Sorin 1987, Alexiadou 1999, Alexiadou & Anagnostopoulou 1998 among many others). They behave like Clitic Left Dislocated (CLLDed) elements directly merged in an A'-position. The reader is referred to the work of the aforementioned authors for discussion with respect to the A'-status of preverbal subjects and to Cardinaletti (1997) for arguments against this view. On the other hand, as has been argued in detail in Alexiadou (1999), Alexiadou & Anagnostopoulou (1998) among others, postverbal subjects in languages such as Greek and Spanish remain VP internal, as opposed to VSO orders in Irish (see for instance McCloskey 1996). In other words, postverbal, i.e. focused, subjects remain in situ, while preverbal, i.e. topic, subjects occupy an A'-position. This in turn means that 'new' information subjects are located inside the VP, while 'old' information subjects are located outside the IP. This roughly corresponds to the positions often argued for in the literature to be occupied by 'new' and 'old' information DPs (see Diesing 1992, and Meinunger 1999 for references and extensive discussion).

However, it turns out that there are important differences with respect to the placement of subjects in the various NSLs both in the left periphery and in the postverbal domain, crucially interfering with information structure, which must be looked at more closely.

The paper is structured as follows. In section 2 I examine in detail the differences that exist among these three NSLs both in the preverbal and the postverbal domain. In section 3 I investigate the sensitivity of the word order patterns to the information structure pointing out again some differences among these languages, by paying special attention to the VOS order, the one inverted order shared by all the languages. Finally, in section 4 I turn to the syntactic analysis of VOS orders. In my discussion of the Greek facts I leave

out examples involving clitic doubled objects for reasons of space (but see Alexiadou & Anagnostopoulou 1999, 2000 for a preliminary discussion). Clearly, a detailed investigation of these phenomena should include these patterns as well.

2. Differences in the Word Order Patterns of Spanish, Italian and Greek

2.1. Preverbal Domain

While in Greek and Spanish, preverbal subjects can be shown to occupy an A'-position, the preverbal position in Spanish can contain phrases other than the subject, i.e. the subject competes with other elements for the preverbal position. Moreover, the verb is adjacent to the XP that precedes it (see Zubizarreta 1998):

(3) a. María presentó   su renuncia   ayer
         Mary presented her resignation yesterday

     b. ayer   presentó María su renuncia
         yesterday presented Mary her resignation

     c. *Temprano Julia salia de casa
         early   Julia left home

(4) a. *LAS ESPINACAS Pedro trajo
         the spinach   Pedro brought

     b. *algo   donde encontraste?
         something where you found
         'Where did you find something'

As shown in (3c) and (4), the preverbal subject in Spanish competes with focus, emphatic, topic and wh-phrases for this fronted position. In this respect, Spanish resembles the Germanic languages, especially Icelandic and Yiddish. Thus the preverbal position in Spanish is not uniquely for CLLDed material.

In Greek, there is no such competition in the sense that the language permits multiple dislocations (cf. 5).

(5) a. O Petros htes   meta apo poles prospathies sinandise ti Maria.
         Peter-nom yesterday after from many efforts   met   Mary-acc
         'After many efforts, Peter met Mary yesterday'.

     b. ti Maria kthes   meta apo polles prospathies ti sinandise o Petros.
         Mary-acc yesterday after from many efforts cl-acc met Peter-nom
         'After many efforts, Peter met Mary yesterday'.

Likewise, Italian permits multiple CLLDs (cf. Cinque 1990).

Moreover, focused consituents in Greek do not need to be adjacent to the verb, but may precede Topics (cf. (6a); Giannakidou 1997, contra Tsimpli 1995). Furthermore,

preverbal subjects interfere with wh-movement in the following sense:[2] subjects/CLLDed objects are not allowed to intervene between the wh-phrase and the Verb when the fronted element is a non D-linked argument (6d). Torrego (1984) and Canac Marquis (1991) analyse this as a Subjacency effect that Anagnostopoulou (1994) attributes to the status of preverbal subjects as CLLDed:

(6) a. STON PAVLO ktes   edose   i Maria   ta lefta
         to Paul   yesterday gave-3sg Mary-nom the money- acc
         'It was to Paul that Mary gave the money yesterday'

     b. pjon   apo tus fitites   o Janis   sinandise ktes
        who-acc from the students John-nom met-3sg   yesterday
        'Which one of the students did John meet yesterday'

     c. Pjos apo tus fitites   tin askisi   tin   elise
        who from the students the excersice-acc cl-acc solved-3sg
        amesos?
        immediately?
        'Which one of the students solved the excersice immediately?'

     d. Pjon (*o Petros) ide (o Petros)?
        whom Peter-nom   saw Peter

Italian patterns like Greek with respect to focus, but not with respect to wh-movement. As shown in (7), a focus phrase can precede a topic phrase in Italian, but a wh-phrase, irrespectively of its D-linked character, cannot precede a topic phrase:

(7) a. QUESTO Gianni ti dira
        this   John to you will tell

     b. che cosa (*a Gianni) gli dovremmo dire
        what   to John   we should   say   (Rizzi 1997)

This perhaps may be attributed to the fact that the wh-criterion is operative in Italian, thus requiring strict verb-wh-phrase adjacency, but not in Greek (see Anagnostopoulou 1994 for detailed argumentation). On the other hand, Spanish seems to have a generalised A'-criterion, i.e. a well formedness condition which requires A'-elements to be in a specifier-head configuration with a head independently marked for this feature (along the lines suggested in Ortiz de Urbina 1995 for Basque).

Preverbal focus is always contrastive in all these languages. That is preverbal focused material is acceptable in a situation in which the presupposition is explicitly negated, as illustrated in (8) for Greek. Arguably such a configuration is derived by A'-movement to a focus projection, as argued for in detail in Tsimpli (1995):

(8)   O JANIS tha erthi (ohi o Kostas)
         John   will come not Kostas

---

[2] Note here that a similar restriction holds in Spanish. That is (6b-c) would be grammatical in Spanish as well.

While in Greek and Spanish, the arguments for the A'-status of the preverbal subject seem to be rather convincing, in Italian there is no clear evidence that the preverbal subject is CLLDed (see the discussion in Cardinaletti 1997). For instance, Aux-to-Comp contexts, which disallow CLLDed material (9b), admit full subjects (9a):

(9) a. Avendo Gianni telefonato a Maria
         Having John called Mary
     b. *avendo a Roma vissuto per venti anni
         having in Rome lived for twent years

Presumably the differences that exist between Italian and Greek are due to the different properties of left dislocation in the two languages (see Cinque 1990), namely bare quantified objects under a non-specific reading can be fronted in Italian, but not in Greek (see Anagnostopoulou 1999). As discussed in Cinque (1990:15), CLLD of bare quantifiers in Italian does not require a resumptive clitic:
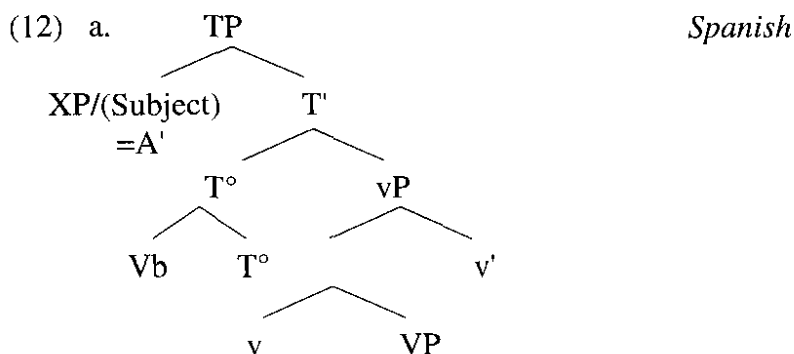
(10)   Qualcuno, (lo) troveremo
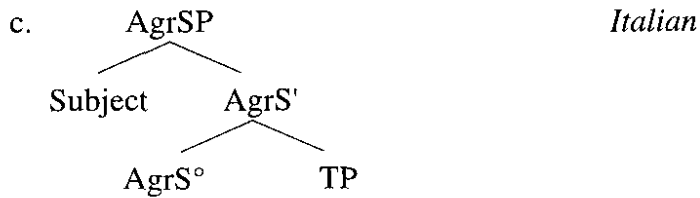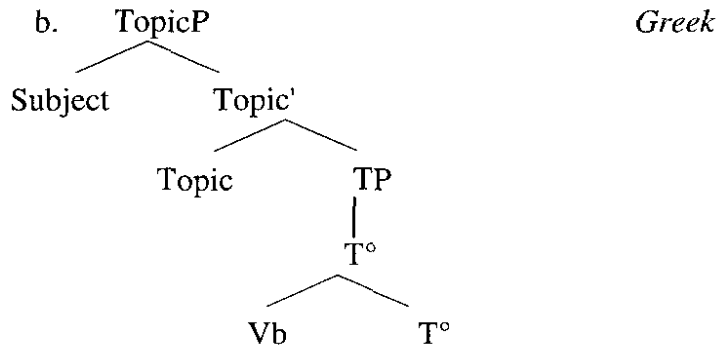   *someone we (him) will find*

When the clitic is present the quantifier is interpreted as specific, when the clitic is absent the quantifier is interpreted as non-specific (see also Dobrovie-Sorin 1990 for Romanian).

These facts do not seem to hold in Greek. Bare quantifiers either undergo CLLD, in which case a clitic is required and the quantifiers are generally interpreted as specific, or they undergo focus-movement, in which case the clitic is necessarily absent (this is always the case with focus-movement in Greek, cf. Tsimpli 1995 for discussion and references):

(11) a. Kapjon i Maria   *(ton) epjase   na antighrafi
         Someone, the Mary *(him) found-3sg to cheat
         'Mary found somebody cheating'

     b. *Kapjon tha   vrume (alla den kserume pjon)
         Someone will find-we (but we don't know whom)
         'We'll find someone (but we don't know who)'

     c. KAPJON tha vroume (alla den kseroume pjon)
         someone fut find-1pl but neg know whom

Leaving focussed preverbal subjects aside, the structures below depict the positions preverbal subjects have been argued to occupy in the languages under consideration.

(12) a.   TP   *Spanish*
           /   \
    XP/(Subject)   T'
        =A'   /   \
                 T°   vP
               /   \   /   \
             Vb   T°   v'
                    /   \
                   v   VP

```
b.    TopicP                          Greek
     /\
Subject   Topic'
         /\
     Topic    TP
              |
              T°
             /\
          Vb    T°


c.      AgrSP                         Italian
       /\
Subject    AgrS'
          /\
      AgrS°    TP
```

From the above structures it is clear that in Greek preverbal subjects occupy a CLLDed position. On the other hand, the preverbal position in Spanish seems to behave as a mixed category, given that other elements seem to be able to occupy it as well. Italian differs from both Spanish and Greek. Under Cardinaletti's analysis, the preverbal position in Italian can be but need not be CLLDed unlike in Greek. The essence of Cardinalett's proposal is that Italian behaves more like an SVO language of the English type. In other words, realised Subjects and Null Subjects (or perhaps null locatives see below) seem to be in competition. As we will see, this seems to correlate with the information structure associated with SVO orders in Italian.

In the next section I turn to the placement of subjects in the postverbal domain.

2.2. Postverbal Domain

As shown in (13) and (14), in Greek and Spanish postverbal subjects occur with all types of intransitives predicates:[3]

(13) a. efige   o Petros.   *unaccusative*
        left   Peter-nom
        Peter left.

     b. epekse   o Petros.   *unergative*
        played Peter-nom
        Peter played.

(14) a. se rio Juan   *Spanish*
        laughed Juan

     b. han estornudado tres leones
        have sneezed three lions

---

[3]   As noted in Alexiadou (1996), with unergatives postverbal subjects are fully acceptable when the verb inflects for perfective Aspect. Imperfective marking gives less acceptable results.

Both languages also permit postverbal subjects with all types of transitive predicates. Moreover, they both allow VSO and VOS orders:

(15) a. ektise i Maria   to spiti   *accomplishment*
          built the Mary-nom the-house-acc
          'Mary built the house'

      b. kerdise i Maria   ton agona   *achievement*
          won the-Mary-nom the-race-acc
          'Mary won the race'

      c. egrafe   i Maria   to grama   olo to proi *process*
          wrote-imp:3sg the-Mary-nom the-letter-acc all the morning
          'Mary was writing the letter the whole morning'

(16) a. ektise to spiti   i Maria
          built the house-acc Mary-nom

      b. kerdise   ton agona   i Maria
          won- 3sg the race-acc Mary-nom

      c. egrafe   to grama   i Maria   olo to proi
          wrot-imp:3sg the letter-acc Mary-nom all the morning

(17) a. ayer   presentó María su renuncia
          yesterday presented Mary her resignation

      b. me   regaló la botella de vino María
          to me gave   the bottle of wine Mary   (Zubizarreta 1998)

The difference between Spanish and Greek VSO orders is that the former are licit, only when another XP occupies first position:

(18)   ??(ayer)   presentó María su renuncia
          yesterday presented Mary her resignation

(19)   (ktes)   ipevale   i Maria   tin peretisi tis
          yesterday submitted Mary-nom her resignation

On the other hand, Italian does not permit VSO orders at all:

(20)   *Ieri   ha dato Gianni un libro a Maria
          yesterday has given John a book to Mary (Zubizarreta 1998)

In Italian only VS and VOS orders are allowed, both, however, being subject to a number of restrictions (see below):

(21) a. e arrivato Gianni
          is arrived John

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b. ?ha mangiato la mela Gianni
    has eaten   the apple John

Let us now consider in some detail how these word orders, especially the inverted ones, reflect discourse information and whether the type of information associated with the various word order patterns is equivalent in the languages under consideration.[4]

3. Word Order Patterns and their Sensitivity to Information Structure

3.1. SVO in Italian does not constitute aTtopic-Comment structure

A survey of the literature reveals that there are important differences among the various word patterns in these three NSLs. Importantly, Italian SVO orders seem to have the information structure properties of Greek and Spanish VSO orders. That is, in Italian SVO orders can function as replies to the question 'what happened?' (see (22) from Calabrese 1992).

- what happened?

(22)   Carlo ha presentato Sandro a Maria
          Carlo has presented introduced to Mary
          'Carlo introduced Sandro to Mary'

(22) clearly shows that preverbal subjects in Italian do not constitute 'old' information. This correlates with the syntax of preverbal subjects in this language, according to which these do not necessarily behave as A'-elements (see (12) above).

    This is not the case for Greek and Spanish. Only VSO orders can be understood as answers to the question "what happened" in these two languages (see Comorovski 1991, Anagnostopoulou 1994, Zubizarreta 1994). SVO orders are unacceptable in these contexts (cf. 2, repeated below).

- what happened?

(23) a. molis espase o Janis   tin kristalini lamba
          just broke the-John-NOM the crystal   lamp
          'John just broke the crystal lamp'

      b. *molis o Janis espase tin kristalini lamba

An interesting fact about Italian inverted orders is that in this language postverbal subjects with intransitive verbs are also restricted. Consider the examples in (24). Inverted orders are licit with unaccusative predicates, while they are impossible with unergative ones (24b):

-what happened?

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[4]   Sources: for Italian: Belletti (1998), Calabrese (1992), Pinto (1997), Zubizarreta (1998). For Spanish: Zubizarreta (1998).

(24) a. e arrivato Gigi
           is arrived Gigi

      b. *ha riso Gigi
           has laughed Gigi   (Zubizarreta 1998)

Pinto (1997) has argued that constructions of the type in (24a) involve a covert or an overt locative. The locative remains implicit if it is interpreted deictically. Thus a sentences like (24a) means that Gigi arrived here. Evidence for the presence of a covert locative in these contexts comes from a range of facts discussed in Manzini and Savoia (in preparation). Manzini & Savoia provide data from northern Italian dialects in which VS constructions include both an expletive nominative clitic and a locative clitic, as illustrated in (25) below:

(25)   u   ie mwera y galinne.   *Montaldo* (cited in Zubizarreta 1998: 192)
        expl loc dies chickens
        'Chickens die'

The constraint on VS orders in Italian under the presentational focus interpretation seems to be similar to the constraint encountered in the English locative inversion construction, as shown in (26) (from Levin and Rappaport 1995: 222):

(26) a. In the distance appeared the towers..
      b. *In the nursery smile half a dozen newborn babies

Both Italian VS and English locative inversion constructions are grammatical with unaccusative, but not with unergative predicates.

3.2. The Influence of Aspect

Horvath (1985) has observed that preverbal or postverbal placement of arguments has an influence on the aspectual interpretation of the sentence. This is particularly clear in Hungarian where sentences are vague with respect to progressive vs. perfective aspect, the actual interpretation depending on the context. Clauses with a V-complement occurring in the pre-V node are interpreted as having perfective Aspect, while clauses in which a complement has been postposed are interpreted as having progressive Aspect. This is illustrated in the examples below:

(27) a. Mari az asztalra rakta az edényeket   *Perfective*
          Mary the table-onto piled the dishes
          'Mary has piled the dishes on the table'

      b. Mari rakta az asztalra az edényeket   *Progressive*
          Mary piled the table-onto the dishes
          'Mary was piling the dishes on the table'

To account for this state of affairs Horvath proposes a set of template like interpretive rules for the specification of Aspect in Hungarian. Although Horvath assumed that this a phenomenon particular to Hungarian, it turns out that word order is very sensitive to the aspectual properties of verbs across languages and that it crucially interferes with information structure. In what follows I turn to certain aspectual restrictions with the

VSO/VOS orders in Spanish and Greek, which will actually further support the view that SVO in these languages constitutes a topic-comment structure.

As the data in (28) show, inverted orders in Greek are not acceptable with stative predicates, unless either perfective Aspect is used on the verb (29a) or the verb itself is focussed (29b). On the other hand, inverted orders are grammatical with eventive predicates, as has been illustrated throughout this paper:

(28) a. *misi/agapai/fovate/kseri i Maria   ton Petro
       hates/loves/fears/knows the-Mary-nom the-Peter-acc

    b. *misi ton Petro   i Maria
       hates the Peter-acc the Mary-nom

vs. c. pandreftike o Petros   tin Ilekrta
       married   the-Peter-nom the-Ilektra-acc
       'Peter married Ilekrta'

    d. i Maria   misi/agapai/fovate/kseri ton Petro
       the-Mary-nom hates/loves/fears/knows the-Peter-acc

(29) a. misise/agapise   i Maria   ton Petro
       hated-perf-3sg/loved-perf-3sg the-Mary-nom the-Peter-acc

    b. KSERI   o Janis   Germanika
       knows-3sg John-nom German-acc

Note that in (29a), however, the meaning of the verb changes: "loved" is understood as "fell in love" (episodic reading).

On the basis of the above data, we can formulate the following generalization (see also Zubizarreta 1994):

(30)   *Generalization*:
    Only non-stative stage level-predicates can appear in inverted orders in Greek and Spanish.

(30) expresses the intuition that the tense/aspect properties of the predicate interact with the discourse function of the construction which is related to presentational focus in an important way. Recall that inverted orders are associated with presentational focus. Statives cannot appear as answers to the question "what happened", as they are inherently incompatible with these contexts. Generic sentences are also expected to be excluded: they correspond to categorical judgements, they are non-stage level (cf. Kuroda 1972, Ladusaw 1993). In fact, this prediction is borne out, as the following examples show. Generic readings are suppressed under VSO (cf. 31a vs. 31b from Alexiadou & Anagnostopoulou 1995):

(31) a. I gata   kinigai pondikia   *generic*
       the-cat-nom chases mice-acc
       'Cats chase mice' or 'The cat chases mice'

    b. kinigai i gata   pondikia   *cannot be generic*
       chases the-cat-nom mice-acc
       'The cat chases mice'

The Greek examples in (31) are strongly reminiscent of Japanese generic sentences which always have the topic marker *wa* as shown in (32). The presence of a different marker (i.e. the nominative marker *ga*) forces a non-generic interpretation. Greek differs from Japanese in that it expresses the same distinction with the choice of a specific word order:

(32) a. Inu **wa** hasiru   *Japanese*
          Dogs TOP run
          'Dogs run'

      b. Inu **wa**   neko o oikakeru
          Dogs TOP cats   chase
          'Dogs chase cats'
      c. Inu ga neko o oikakete iru
          'The dog is chasing a cat'   (Kuroda 1972)

As Alexiadou & Anagnostopoulou (1995) point out, (28d) above could be analysed as Left Dislocation which is an obligatory process with statives due to the special discourse function associated with VSO orders and the inherent incompatibility of statives with this function. This instance of LD is a process of de-focusing in the sense of Reinhart (1995), necessary to avoid the clash that is produced from the fact that in a language like Greek no DP movement is necessary for reasons of feature checking (see Alexiadou & Anagnostopoulou 1998) and the discourse function associated with the VSO string. From this point of view, whenever morphologically trigerred movements, such as V-movement which obligatorily applies in NSLs, give rise to "inappropriate" information structures, LD of the subject or the object are expected to apply. Consider further the following example (from Alexiadou & Anagnostopoulou 1995):

(33)   ton Petro   ton   misi/agapai/fovate i Maria
         the-Peter-acc cl-acc hates/loves/fears   the-Mary-nom
         'Peter Mary hates/loves/fears'

In (33), left dislocation of the object has applied. The structure is as acceptable as (27d) is and they both contrast with (28a).

The examples in (29) showed another interesting property of inverted orders. Whenever a stative predicate surfaces with perfective Aspect or it is focussed, the ungrammatical VSO orders become grammatical again. Kiss (1987) observes that in Hungarian Focus and Aspect marking are in complementary distribution, i.e. if a Hungarian sentence is syntactically marked for Aspect, for instance by containing the adverbial *fel* 'up', which triggers a perfective interpretation, then it cannot contain a Focus. If it contains a Focus, then it cannot be syntactically marked for Aspect. The fact that the two elements are mutually exclusive suggests that they share some common grammatical property. That there is a link between Aspect and Focus has also been suggested elsewhere in the literature (see for instance Zubizarreta 1994 and references therein) and the facts discussed here also point to the same direction.

Turning to Italian, Calabrese (1992) points out that VOS orders are acceptable only if they have a telic interpretation, i.e exactly like the Greek VSO and VOS patterns the Italian inverted contruction is sensitive to aspect. This is illustrated in the examples below. As (34) shows, stative predicates are not acceptable in VOS orders (34b), and neither are eventive predicates bearing imperfective morphology. Given that it has been

argued that imperfective aspect creates stativity readings, it is not unexpected that eventive predicates inflected for imperfective aspect, are unacceptable in the VOS order, exactly like stative predicates.

(34) a. *scriveva una lettera Maria   *Imperfective Aspect*
          was writing a letter Mary

      b. *ama un cavallo Caligola   *Stative Predicates*
          loves a horse   C.

      c. *conosce una lingua straniera Sandro
          knows a language foreign Sandro

Note that Italian VOS sentences seem to be sensitive to a heaviness constraint (35a),[5] which diseappears, together with the aspectual restrictions, once the object has been topicalized (35b) or the subject carries heavy pitch or is metrically branching, as shown in (35c&d):[6]

(35) a. ?ha mangiato la mela Gianni
          has eaten   the apple John

      b. la mela, l'ha mangiata Gianni
          the apple it has eaten John   (Zubizarreta 1998)

      c. ha mangiato la mela solo Gianni
          has eaten the apple only John

      d. ha mangiato la mela GIANNI
          has eaten the apple John

The pattern in (35) is very similar to the Greek cases discussed earlier on. (35b) can be interpreted as a process of de-focusing in the sense of Reinhart (1995). A similar function is obtained with the focussing of the predicate or of the subject. In other words, the presence of a focus operator in the sentence creates a contrastive focus domain, which necesserily involves movement at LF to an A'-position.

There is, however, a difference between VOS orders in Italian and inverted orders in Greek. For most Italian speakers VOS orders have a contrastive focus interpretation on the subject (cf. Belletti 1998), which is not the case for the Greek VOS orders. The latter ones tend to involve new information on the subject. This is illustrated in the examples below. While in (36) the subject is interpreted as contrastively focussed, as signalled by the fact that it can be contrasted with a set of alternatives, this is not the interpretation the subject receives in the Greek VOS order. For the subject to receive a contrastive interpretation in Greek, it has to be fronted (38):

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[5] Reminiscent of:

    (i)   a. there hits the stand a new journal
            b. there entered the room a man from England
                                            (Chomsky 1995 citing Kayne)

[6] According to Calabrese, this offers an explanation for the fact that a postverbal subject must be always focalized unless there is a special telic interpretation that provides a spatio-temporal argument that can qualify as the subject of predication. In this sense Italian VOS are similar to the English examples presented in the previous footnote.

(36)   ha capito il problema GIANNI (non tutta la classe)
        has understood the problem John not the whole class

(37)   *agorase to isitirio   mono i Maria;
        bought   the ticket-acc only Mar-nom
        dil. den agorase   to isitirio o Janis
        that is neg bought the ticket-acc John-nom

(38)   (mono o Janis) agorase to isitirio
        only John   bought the ticket

(39) provides further evidence for the link between subjects in the VOS order in Greek and presentational focus. As the contrast in the sentences below shows, in a context where only the subject 'a boy' is introduced as 'new' information, then the (39a) may be followed by (39b), but (39c) or (39d) seem very odd. According to my intuitions, (39b) is even better when the object is clitic-doubled. As Anagnostopoulou (1994) has extensively argued, clitic-doubling in Greek is linked to the notion of familiarity in the sense that clitic-doubled objects are 'strong'/'presuppositional'. And indeed the object has already been introduced in the discourse in (39a).

(39) a. O Petros agorase ena vivlio.   ke meta
          Peter-nom bought-3sg a book. and then
          'Peter bought a book. And then

      b. (to)   katestrepse   to vivlio   ena agori
          cl-acc destroyed-3sg the book-acc a boy-nom
          'A boy destroyed the book

      c. %(to)   katestrepse ena agori to vivlio
          cl-acc destroyed-3sg a boy-nom the book-acc

      d. %ena agori   katestrepse to vivlio
          a   boy-nom destroyed the book-acc

Spanish VOS orders can also involve contrastively focused subjects, but not exclusively as Zubizarreta points out:

(40)   solo ha terminado el trabajo MARIA;
        only has finished the work Mary;
        os sea no ha terminado el trabajo Juan
          that is, has not finished the job Juan

Summarizing, in this section the following points have been discussed. Inverted orders (VS/VSO) are in principle presentational contexts. As such they are sensitive to the aspectual properties of the predicate. The aspectual properties are overriden, once one of the elements receives contrastive focus (and exhaustivity readings) or LD of one of the arguments applies. VOS orders in Italian and Spanish, but not in Greek can involve contrastive focus on the subject.
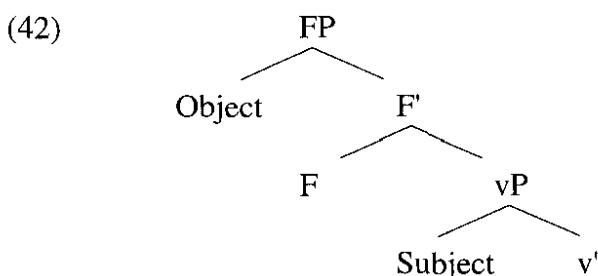
    In the next section I show that these differences reflect a difference in the structure of the inverted orders in these three languages.

4. Interaction of Information Structure, Prosody and Syntactic Movement

As has been mentioned in sections 1 and 2, presentational contexts involve arguments in their base position (Greek and Spanish VSO, Italian VS) or maximally as high as TP/AgrSP (Italian SVO). In section 3 it was pointed out that LD of arguments standardly involves movement to or base generation in a position higher than TP/AgrSP, in case an A'-position. The resulting structures are not presentational. The intuition I will pursue here is that generally movement above T°/TP, which destroys the presentational information structure, takes different shapes in the languages under discussion.

Let us first consider the derivation of VOS in Spanish and Greek (cf. Ordoñez 1994, Alexiadou 1997, Zubizarreta 1994). On the basis of data such as the ones presented in (41), where a quantifier contained within the object can bind into the pronominal included within the postverbal subject, Alexiadou (1999) for Greek and Ordoñez (1994), Zubizarreta (1994) for Spanish have argued that the object is located in a specifier position higher than the subject. The object is found in this position as the result of leftward movement over the subject that remains in situ, as shown in (42):

(41) a. sinodepse   to kathe pedi   i mitera tu
        accompanied the every child-acc the mother-nom his
        'Its mother accompanied every child to school'

    b. *sinodepse   to pedi tis   i kathe mitera
        accompanied the child-acc hers the every mother-nom

(42)

```
                    FP
                  /    \
           Object        F'
                        /   \
                      F       vP
                            /    \
                      Subject      v'
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Both Alexiadou (1999) and Zubizarreta (1998) note that this type of scrambling is different from the Germanic type, as it is not restricted to specific DPs.[7]

(43) a. no trajo   nada   Juan   *Spanish*
        not brought anything John

    b. diavase kati   o Janis   *Greek*
        read   something-acc John-nom

Given that the grammaticality judgements with respect to the aspectual restrictions are not amended in Greek VOS orders (see the discussion in the previous section), this type of movement is not an instance of LD, but rather an instance of A-movement, as is also manifested by the binding facts in (41). Rather Greek VOS orders behave as presentational in the broad sense: they introduce less familiar information in the context of more familiar information (cf. Levin & Rappaport 1995).

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[7] As Costa (1999) points out this does not hold for Portuguese VOS orders, which are sensitive to the definiteness of the object.

For Spanish, Zubizarreta has extesively argued that this movement is an instance of prosodically motivated movement. That is it applies in cases where the nuclear stress rule and the focus prominence rule give rise to a prosodically contradictory output. In this case, the subject is marked as [+focused]. However, the nuclear stress rule would assign prominence to the object, since this is the most deeply embedded constituent in the VP. As a result, material that is marked [-focused] must leave the VP, so that the most deeply embedded constitent can receive nuclear stress.[8] In Greek, however, the VOS order is not interpreted with contrastive focus on the subject. But presentational focus receives stress as well. If this is so, then the movement of the object in Greek could be argued to be prosodically motivated too, although the resulting information structures differ in the two languages.

On the other hand, a different derivation must be assumed for VOS in Italian on the contrastive reading.[9] Recall that there is a crucial difference between Italian and Greek. Italian behaves like an SVO language with the implication that SpecTP (or the EPP position in general) needs to be filled necessarily, either by a locative or by a DP subject (see also Zubizarreta 1998: 123). If subjects generally A-move to Spec,TP, then a contrastive focus interpretation in this language cannot be the result of an in-situ interpretation. As Samek-Lodovici (1998) points out, contrastive focus in Italian occurs always aligned with the right edge of the sentence. Samek-Lodovici (1995) brings a number of arguments suggesting the subject has A'-properties under the contrastive focus interpretation. These arguments come form an examination of binding properties and Weak Crossover (WCO) effects. Consider the examples in (44a) below. The subject is a quantifier phrase raised into Spec,IP from the embedded clause. Since Spec,IP is an A-position and it c-commands the matrix VP, it can bind the pronoun in the indirect argument of the matrix when this reconstructs at LF. The sentence therefore allows for an operator-variable reading where the pronoun is bound by the subject quantified phrase. Compare now (44a) to (44b). According to Samek-Lodovice, if the focus position were an A-position, (44b) should be indistinguishable from (44a) binding-wise and should be grammatical under

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[8] According to Zubizarreta (1998: 142f.) p-movement does not affect quantifier binding relations. She points out that in Spanish the same quantifier binding relations are found in VSO and VOS orders. Consider the following examples:

(i)   a. el primer día de escueala acompañara su MADRE a cada niño
         the first day of school will-accompany his mother acc every child
    b. el primer día de escueala acompañara a cada niño su madre
         the first day of scholl will-accompany acc every child his mother

In Greek (ia) is ungrammatical, unless the object is clitic-doubled:

(ii)   tha *(to)   sinodepsi i mitera   tu to kathe pedi
       fut cl-acc accompany his mother the every child

As Alexiadou & Anagnostopoulou (2000) point out doubling of object affects binding possibilities, and has the immediate effect that the object is interpreted in a higher position than its base one. Note, however, that there is a crucial difference between (ia) and (ii). The VSO order in Spanish involves constrastive focus on the subject, something which is not possible in Greek, at least according to my intuitions. Thus presumably the structure representation of the two examples differs.

[9] According to Cardinaletti (1997), who builds on Ordoñez (1994, 1997), there is evidence that in VOS orders the object undergoes leftward movement to a position higher than the subject. As (i) below shows in Italian a quantificational object can bind a pronoun contained within the subject in the VOS orders:

(i)   ha visitato [ogni soldati]ᵢ suaᵢ madre
      has visited every soldier his mother
      '*His mother has visited every soldier'

However, these judgements are not shared by all speakers. In fact as Cecilia Poletto (personal communication) points there is strong variability depending on the type of quantifier.

the same operator-variable interpretation. Instead (44b) is ungrammatical. Its ungrammaticality follows from the A'-status of the focus position. In fact, being an A'-position, the quantified subject cannot bind the pronoun at S-structure. Its A'-status forces it to reconstruct at LF before quantifier raising. When it quantifier raises at LF, it raises past the reconstructed indirect object, creating a WCO violation.

(44) a. ai suoi genitori, ogni bambino e sembrano mangiar poco
          [ai suoi$_i$ genitori]$_k$, [$_{IP}$[ogni bambino]$_i$ e [$_{VP}$sembrato t$_k$ [t$_i$ mangiare poco]]]
          to his parents,   each child   is seemed   to eat little

      b. *ai suoi genitori, e sembrano mangiar poco ogni bambino
          [ai suoi$_i$ genitori]$_k$, [$_{IP}$ e [$_{VP}$[$_{VP}$sembrato t$_k$ [$_{IP}$ t$_i$ mangiare poco]] [ogni bambino]$_i$]
          'EACH child seemed to eat little to his parents' Samek-Lodovici 1995: 15

There are a number of ways to arrive at such a configuration. According to Samek-Lodovici, the position in question is not the base position of the subject, but a position right adjoined to the IP. Recently Ordoñez (1997), Belletti (1998), Zubizarreta (1998) among others propose that VOS orders in Italian are best analysed as involving movement in several steps (see 45). The first step involves movement of the subject to TP. The second step involves movement of the subject to a focus position. Subsequent steps involve movement of the remnant VP/TP to a position higher than FocusP.

(45)   [XP [TP ha mangiato la mela] X° [FP Gianni TP]]]

Note that the presentational reading, if present at all in the VOS order, could be seen as involving an empty locative in TP, V movement to T and Obj movement above the subject to a domain below T, the subject remaining in situ (similarly to the few cases of English Transitive expletive constructions presented in footnote 4). Alternatively, it could be argued that the subject moves to TP and the whole remnant vP, the verb together with the object adjoins to TP, and thus the structure still remains sensitive to the aspectual restrictions, as it is not situated above TP (see 46).

(46)   [TP [vP ha mangiato la mela] [TP Gianni vP]]

Note here that a number of constructions indicate that such a derivation is not possible for the Greek VOS orders (diagnostics based on Costa 1999 who makes this point for Portuguese VOS orders). As Costa points out, if VOS orders involved movement of the subject and remnant movement of the VP to its left, it would be predicted that floating quantifiers should appear inside the moved constituent, assuming that floating quantifiers are possible after subject movement to Spec,IP (see Sportiche 1988). In fact they don't. This suggests that the analysis of VOS in terms of scrambling is superior; given that the subject remains in situ, floating quantifiers are not predicted to be grammatical in such examples:

(47) a. *ehun diavasi ola to vivlio ta pedia
          have read   all the book the children
      b. *ehun ola diavasi to vivlio ta pedia
          have all read   the book the children
      c. ehun diavasi to vivlio ola ta pedia
          have read the book all the children

Interestingly the equivalent of (46)-(47) in Italian also gives deviant results (Paola Monachesi personal communication), although perhaps the ungrammaticality is not as sharp as in Greek:

(48)   a.   ??hanno letto tutti il libro i ragazzi
        b.   ??hanno tutti letto il libro i ragazzi
        c.   tutti i ragazzi hanno letto il libro

If it turns out that the Italian data are much better than the Portuguese and Greek ones, then this strongly suggests that VOS in Italian truly involves TP movement to a position in the left periphery. The topic awaits further research.

5.   Conclusion

In this paper I examined certain aspects of word order in three NSLs and how these interact with information structure. I pointed out that although the languages under consideration are thought of as being very similar, one can observe important differences among them both in the preverbal and the postverbal domain. I have argued that these patterns follow from differences in the clausal structure of these languages and the different derivations that underlie them.

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Über die syntaktische Position der Satztopiks im Deutschen[*]

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Inhalt

Das Papier argumentiert anhand einer Reihe von Phänomenen für die Existenz einer ausgezeichneten Topikdomäne im Mittelfeld des deutschen Satzes. Deutsch ist somit Diskurs-konfigurational hinsichtlich Topiks. Die Beobachtung erlaubt die Beantwortung einiger grundlegender Fragen wie die nach der möglichen Anzahl von Satztopiks, nach der Möglichkeit von Satztopiks in eingebetteten Sätzen oder nach dem Zusammenhang von Scrambling und Topikstatus. Die These, die 'starke' Interpretation einer indefiniten Phrase impliziere deren Topikstatus, wird zurückgewiesen. Syntaktische Eigenschaften der Topik-Voranstellung im Mittelfeld werden herausgearbeitet und ihre Implikationen für die Theoriebildung werden erörtert.

1. Das Satztopik

Die berühmte Charakterisierung des Konzepts 'Satztopik'[1] durch Hockett (1958:201) lautet:

(1)   "the most general characteristic of predicative constructions is suggested by the terms 'topic' and 'comment' for their ICs: the speaker announces a topic and then *says something about it*"

Die folgenden Beispiele können diese Beschreibung illustrieren[2]:

(2)   a.   /Peter forderte Maria zum \TANzen auf
       b.   Peter forderte Maria zum \TANzen auf
       c.   Die Poli\ZEI kommt

(2a) wird so verstanden, daß einem informationsstrukturell hervorgehobenen Referenten eine bestimmte Eigenschaft zugewiesen wird. Dabei muß dieser Referent nicht als im Kontrast zu anderen stehend aufgefaßt werden. Der Referent des Ausdrucks 'Peter' ist der Ausgangspunkt des Satzes. Über ihn wird prädiziert.[3] Der Ausdruck 'Peter' in (2a)

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[1]   Der Terminus 'Satztopik' wird in der Literatur mehrdeutig verwandt. Mit ihm wird sowohl eine Konstituente im Satz bezeichnet, als auch auf ein Objekt der Welt referiert. Im Zitat von Hockett treten beide Verwendungsweisen sogar in einer Äußerung auf. Im folgenden Text verweist der Terminus auf eine Satzkonstituente.

[2]   Großbuchstaben markieren betonte Silben: /: steigend, \: fallend.

[3]   (2a) muß daher unterscheiden werden von der sog. I-Topikalisierung, wie man sie im folgenden Beispiel findet:

piks benannt werden. Reinhart (1981) vergleicht dies mit dem Ordnungsprinzip des thematischen Katalogs einer Bibliothek. Ein Topik funktioniert hiernach wie ein Thema, dem Einträge zugeordnet werden.

Der Aufsatz ist wie folgt gegliedert: Im Abschnitt 2 wird die Frage nach der syntaktischen Auszeichnung der Topiks im Deutschen aufgeworfen. Es wird dafür argumentiert, daß im deutschen Mittelfeld eine Domäne für die strukturelle Auszeichnung der Topiks existiert. Abschnitt 3 zieht Folgerungen aus diesem Befund, u.a. wird die Frage diskutiert, für welche der beiden Explikationen (4i) oder (ii) die strukturell ausgezeichneten Topiks des Deutschen sprechen. Abschnitt 4 wirft einen Blick auf Pronomina. In Abschnitt 5 wird die These des Zusammenhangs der sog. starken Interpretation indefiniter NPs und deren Topikstatus zuückgewiesen. In Abschitt 6 wird diskutiert, welche Elemente neben NPs als Satztopiks möglich sind. Abschnitt 7 enthält eine Auseindersetzung mit alternativen Vorschlägen zur Syntax der Topiks im Deutschen. In Abschnitt 8 wird die Topikauszeichnug mit sonstiger Mittelfeldumstellung und mit der Vorfeldbesetzung verglichen. Schließlich werden in Abschnitt 9 Überlegungen angestellt, wie sich die Mittelfeldauszeichnung der Topiks in die Syntax des deutschen Satzes eingliedern läßt.

2. Der Topikbereich im Mittelfeld des deutschen Satzes

Die meisten Autoren gehen davon aus, daß es im Deutschen keine speziell für Topiks reservierte Position gibt (z.B. Molnár (1991, 1998), Lambrecht (1994), Vallduví & Engdahl (1996), Jacobs (1999)). Bei Sätzen ohne Herausstellung ist der Blick auf das Vorfeld gerichtet. Molnár (1991, 1998) nimmt an, daß Topiks im Deutschen notwendigerweise im Vorfeld plaziert werden. Die obligatorische Initialstellung wird aber nicht nachgewiesen. Auch Jacobs (1999) nennt als eine prototypische Eigenschaft des Topiks, daß es auf der S-Struktur von keinem anderen Argument des Satzes k-kommandiert wird.[4] Da man aber auch feststellt, daß im Vorfeld nicht nur Topiks positioniert werden, ergibt sich, daß Deutsch bezüglich Topiks nicht Diskurs-konfigurational ist[5].

Im vorliegenden Papier wird für eine andere These argumentiert. Für diese wird die Position der Satzadverbiale eine wichtige Rolle spielen. Daher seien sie zunächst charakterisiert.

Die *Grundzüge* (1981) definieren die Satzadverbiale (= Modalwörter) als jene Adverbiale, die eine Einschätzung des im Satz beschriebenen Sachverhalts durch den Sprecher bezeichnen. Diese Verwendungsweise des Terminus 'Satzadverbial' wird hier ebenfalls zugrundegelegt. Daraus folgt, daß z.B. Temporal- oder Kausaladverbiale nicht zu den Satzadverbialen gezählt werden. Beispiele für Satzadverbiale sind: Evaluative Adverbiale ('erstaunlicherweise'), Evidenzadverbiale ('offensichtlich'), Epistemische Adverbiale ('wahrscheinlich').

Satzadverbiale besitzen neben ihrer kanonischen Verwendung mit Satzbezug auch eine Verwendung als fokussierende Elemente. Sie nehmen dabei wie in (5a) Bezug auf eine

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[4] Die Annahme einer obligatorischen Initalstellung hat eine lange Tradition: Halliday (1967) definiert das Satztopik als den ersten Ausdruck in einem Satz. Aber bereits Reinhart (1981) weist diesen Ansatz als für das Englische nicht haltbar zurück.

[5] Da Topiks im Deutschen auch nicht intonatorisch markiert zu werden brauchen (s. (2b)), scheint Deutsch hiernach zu jenen Sprachen zu gehören, auf die sich T. Reinhart (1995, 105) bezieht: "One of the factors that make topics a harder subject for research than, say, foci, is that in most languages they are not marked either intonationally or syntactically."

einzelne Konstituente des Satzes. In dieser Verwendung können sie sogar gemeinsam mit ihrem Bezugselement im Vorfeld auftreten, s. (5b).

(5) a. Jemand hat die Frau vermutlich im PARK bestohlen
     b. Unglücklicherweise dem OTto hat sich Maria anvertraut

In dieser Verwendungsweise der Satzadverbiale präsupponiert der Satz jene Proposition, die aus der Proposition ohne Satzadverbial dadurch entsteht, daß der fokussierte Teil durch eine existentiell gebundene Variable ersetzt wird. Diese Verwendung der Satzadverbiale spielt im folgenden keine Rolle. Die Satzadverbiale der Beispiele sollen stets mit Satzbezug verstanden werden. In der Verwendung mit Satzbezug induzieren die Satzadverbiale keine Präsupposition.

Nach Frey & Pittner (1998) haben die verschiedenen Adverbialklassen unterschiedliche Grundpositionen im deutschen Mittelfeld des deutschen Satzes. Die Satzadverbiale sind hiernach sehr hoch in der Struktur positioniert. Ihre Grundposition ist höher als die Grundpositionen der Argumente und der anderen Adverbialklassen.

Ich möchte nun die folgende zentrale These aufstellen, die einen Hinweis aus Frey & Pittner (1998) und Pittner (1999) aufgreift:

(6) Direkt den Satzadverbialen vorangehend gibt es im Mittelfeld des deutschen Satzes einen ausgezeichneten Bereich für Topiks: Alle topikalen Phrasen des Mittelfelds und nur diese werden in diesem Bereich positioniert.

Wir nennen im folgenden diesen Bereich den Topikbereich des Satzes. Die These in (6) soll nun durch eine Reihe empirischer Beobachtungen und Tests belegt werden.

(I) 'aboutness'-Kontext
Betrachten wir das folgende Beispiel:

(7) Ich erzähl dir mal was von Otto.
     a. Nächstes Jahr wird Otto wahrscheinlich seine Kollegin heiraten
     b. #Nächstes Jahr wird wahrscheinlich Otto seine Kollegin heiraten

(7b) ist im gegebenen Kontext nicht möglich. Dies wird durch (6) erfaßt. Durch den Vorsatz wird 'Otto' als Topik der folgenden Aussage festgesetzt. Nach (6) muß aber ein Satztopik vor einem Satzadverbial auftreten.

Es ist wichtig zu beachten, daß es nicht der Definitheit-Status einer Phrase ist, welcher für die Voranstellung verantwortlich ist. Ein definites Subjekt muß nicht vor dem Satzadverbial stehen:

(8) Heute wird wahrscheinlich Fredi Bobic im Dortmunder Sturm spielen

Erst dadurch, daß das Denotat einer Phrase zum Topik gemacht wird, wird die Voranstellung der Phrase erzwungen.

(7) zeigt, daß ein topikalisches Subjekt im Mittelfeld vor einem Satzadverbial auftreten muß. Dies gilt genauso für Objekte:

(9) Ich erzähl dir mal was von Otto.

    a.   Nächsten Monat wird den Otto erfreulicherweise die Botschafterin von Norwegen heiraten

    b.   #Nächsten Monat wird erfreulicherweise den Otto die Botschafterin von Norwegen heiraten

(9a) zeigt darüber hinaus, daß ein Objekt auch bei Präsenz eines definiten Subjekts durchaus (alleiniges) Topik sein kann.

(II) nicht-referentielle Ausdrücke

Das nächste Datum betrifft quantifizierte Elemente wie 'keiner' oder 'fast jeder'. Sie kommen aufgrund ihrer Semantik nicht als Topik in Frage. Topiks als Repräsentanten der Kategorie des 'Worüber' müssen eindeutig identifizierbare Diskursreferenten bereitstellen, über die prädiziert wird. In der Metaphorik der Adressen von Reinhart müssen Topiks eindeutige Adressen abgeben, denen Information zugeordnet werden kann. Dies können Elemente wie 'keiner' oder 'fast jeder' nicht. Aber auch nach der 'familiarity'-Konzeption sind dies offensichtlich keine möglichen Topiks.

Als Elemente, die nicht Topik-fähig sind, können sie nicht im Topikbereich des Satzes auftreten:

(10) a.   *Während des Vortrags hat keiner anscheinend geschlafen

       b.   ??Im Stadion hat fast jeder wahrscheinlich das Handspiel gesehen

(III) Das Bezugselement kataphorischer Pronomen

Nach Reinhart (1981, 1995) (aufbauend auf Kuno (1972)) ist ein kataphorisches Pronomen nur mit Bezug auf ein Topik möglich.

(11) a.   Da er$_1$ gut vorbereitet ist, wird Fred$_1$ wahrscheinlich einen interessanten Vortrag halten

       b.   *Da er$_1$ gut vorbereitet ist, wird wahrscheinlich Fred$_1$ einen interessanten Vortrag halten

       c.   Sein$_1$ Vater wird dem Otto$_1$ glücklicherweise das Auto ausleihen

       d.   *Sein$_1$ Vater wird glücklicherweise dem Otto$_1$ das Auto ausleihen

       e.   Da er betrunken ist, wird den Felix wahrscheinlich der Max beschimpfen

       f.   Da er betrunken ist, wird der Max wahrscheinlich den Felix beschimpfen

       g.   Da er betrunken ist, wird der Max den Felix wahrscheinlich beschimpfen

Nur wenn das potentielle Bezugselement nach (6) durch die syntaktische Struktur als Topik ausgewiesen wird, ist das kataphorische Pronomen möglich, s. (11a, c).[6] Man beachte, daß sich damit auch die Interpretationen für (11e-g) erklären. (11e) wird so verstanden, daß Felix betrunken ist, (f) hingegen so, daß dies auf Max zutrifft. Im Beispiel (11g) sind beide Interpretationen möglich.

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[6]   Diese Daten haben nichts mit Rekonstruktion der Phrasen im Vorfeld für Bindungszwecke zu tun. Es handelt sich in diesen Beispielen um Koreferenz, nicht um Bindung. Bindung der Pronomen in der Vorfeldphrase wäre in allen Fällen in (11) nicht möglich.

(IV) 'Topik-sensitive' Demonstrativpronomen

Ein weiteres Testinstrument für den Topikstatus eines Elementes stellen im Holländischen nach Reinhart (1995) bestimmte Demonstrativpronomen dar. Diese meiden Antezedenten mit einer hohen Zugänglichkeit (Reinhart (1995, 102)). Topiks haben eine hohe Zugänglichkeit.

Die folgenden Daten des Deutschen sind allerdings nur von eingeschränkter Aussagekraft. Es gibt Sprecher, die generell das Pronomen 'derselbige' als merkwürdig empfinden. Für mich jedoch besteht ein deutlicher Kontrast zwischen den folgenden Beispielen:

(12) a.   Heute hat Hans$_1$ erfreulicherweise einen Job bekommen. *Derselbige$_1$ hat es wirklich verdient.

     b.   Heute hat erfreulicherweise Hans$_1$ einen Job bekommen. Derselbige$_1$ hat es wirklich verdient.

(V) Phrasen mit steigendem Akzent

Das Beispiel (2a) hat gezeigt, daß es eine Akzentuierung einer vorangehenden Phrase gibt, die in einem Satz mit einem zweiten prominenten Akzent zu ihrer Auszeichnung als Satzgegenstand führt. Dabei liegt keine kontrastierende Lesart vor. Betrachten wir nun derart betonte Phrasen im Mittelfeld:

(13) a.   Heute abend wird /PEter vermutlich ins Schloßcafé zum \TANzen gehen

     b.   Heute abend wird vermutlich /PEter ins Schloßcafé zum \TANzen gehen

Man stellt fest, daß in (13a) der Referent von 'Peter' als Gegenstand der Aussage ausgezeichnet wird. (13b) hingegen kann nur so verstanden werden, daß Peter in Kontrast zu anderen Individuen gesetzt wird. Hier liegt nicht die neutrale Auszeichnung als Satztopik vor.

(VI) Thetische Sätze, Präsentativkonstruktionen

Thetische Sätze gelten als Paradebeispiele einer topikfreien Konstruktion[7]:

(14) Was passiert gerade?

     a.   Gerade wird vermutlich der neue Präsi\DENT gewählt

     b.   *Gerade wird der neue Präsi\DENT vermutlich gewählt

     c.   Im Moment kommt hoffentlich die Poli\ZEI

     d.   *Im Moment kommt die Poli\ZEI hoffentlich

(14) zeigt, daß das Subjekt eines thetischen Satzes nicht in dem Bereich auftreten kann, der nach (6) den Topikbereich darstellt.

Von den sog. Präsentativkonstruktionen wird angenommen, daß sie kein topikales Subjekt aufweisen (Kuno (1972)). Beispiele für Präsentativkonstruktionen im Deutschen sind:

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[7]   Als thetisch sollen hier die Sätze bezeichnet werden, bei denen auf das Subjekt ein fallender Hauptakzent fällt, wobei der gesamte Satz focal ist. In einem sochen Fall wird durch die formale Markierung erzwungen, daß ein Satz ein Ereignis ungegliedert, d.h. Topik-frei, präsentiert (vgl. Drubig (1992)). Teilweise wird in der Literatur allerdings 'thetischer Satz' generell als synonym mit 'beliebiger Satz ohne Topik' verwandt.

(15) a.   Es spielt Erwin Lehn die ganze Nacht hindurch
           ('V2-Satz mit Expletiv im Vorfeld')

      b.   Kam Hans *zur Tür herein und ...*
           ('Narrativer V1-Satz')

Man beachte, daß in dieser Konstruktion durchaus definite, referentielle Subjekte vor-
kommen können. Aber diese sind eben nach Kuno keine möglichen Satztopiks. Wir er-
warten daher, daß die Subjekte von (15) *nicht vor Satzadverbialen auftreten können*. Die-
se Erwartung bestätigt sich:

(16) a.   *Es spielt Erwin Lehn erfreulicherweise die ganze Nacht hindurch
      b.   Es spielt erfreulicherweise Erwin Lehn die ganze Nacht hindurch
      c.   *Kam Hans überraschenderweise zur Tür herein und ...
      d.   Kam überraschenderweise Hans zur Tür herein und ...

Interessanterweise können *in einer Präsentativkonstruktion* zwar Subjekte nicht Topik
sein und deshalb nicht im Topikbereich auftreten, andere Elemente sind jedoch als Topik
möglich und daher im Topikberreich situierbar[8]:

(17) a.   Es spielt für sie erfreulicherweise Erwin Lehn die ganze Nacht hindurch
      b.   Es hat den Otto leider jemand heftig beschimpft

(VII) Topiksensitive Adverbien

Es gibt Adverbien, deren Bezugselement bei Normalbetonung des Satzes Topikstatus
aufweist. Zu ihnen gehört 'jedenfalls':

(18) a.   weil [Peter jedenfalls] zum Glück morgen mithelfen wird
      b.   *weil zum Glück [Peter jedenfalls] morgen mithelfen wird
      c.   Maria wird [dem Peter jedenfalls] zum Glück die Unterlagen geben
      d.   *Maria wird zum Glück [dem Peter jedenfalls] die Unterlagen geben

(18) zeigt, daß unabhängig von der grammatischen Funktion eine durch das Adverb er-
weiterte NP vor dem Satzadverbial stehen muß[9].

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[8]   Dies gilt auch für andere Präsentativkonstruktionen:
      (i) a. Hier wird (dem Gast) erfreulicherweise frisches Gemüse angeboten
          b. *Hier wird frisches Gemüse erfreulicherweise (dem Gast) angeboten

[9]   Diesen Test für die Behauptung (6) verdanke ich Marga Reis (p.M.). Ein entsprechendes Verhalten
      zeigt auch 'aber', wenn es mit einer NP assoziert ist:
      (i) a. weil [Peter aber] leider nicht mithelfen wird
          b. *weil leider [Peter aber] nicht mithelfen wird
      Unter Kontrastfokus der assozierten NP ist es jedoch möglich, die Phrasen nach einem Satzadverbial zu
      stellen:
      (ii) a. weil glücklicherweise [PETer jedenfalls] morgen mithelfen wird (wenn auch nicht OTto)
           b. weil morgen leider [PETer aber] nicht mithelfen wird (jedoch wenigstens OTto)

(VIII) Die Konstruktion mit einer gespaltenen NP

In der Regel werden bei gespaltenenen NPs Beispiele betrachtet, in denen der Teil, der das Nomen enthält, im Vorfeld auftritt. Man hat dabei die Intuition, daß die Vorfeldkonstituente Topikstatus hat[10]:

(19) Volvos$_1$ hat er nur blaue t_1 gekauft

Aber die Spaltung kann auch im Mittelfeld erfolgen. Wir können dabei die These (6) überprüfen. Die Beispiele sind eindeutig:

(20) a.   weil Hans Volvos$_1$ leider nur blaue t_1 gekauft hat
       b.   *weil Hans leider Volvos$_1$ nur blaue t_1 gekauft hat
       c.   *weil Hans Volvos$_1$ nur blaue t_1 leider gekauft hat
       d.   Otto wird Bücher$_1$ wahrscheinlich keine t_1 verschenken
       e.   *Otto wird wahrscheinlich Bücher$_1$ keine t_1 verschenken

Der Teil mit dem Nomen muß im Topikbereich auftreten (s. (20b,e)), der Rest der aufgespaltenen NP darf dort nicht stehen (s. (20c)).

Zusammenfassend können wir feststellen, daß die Daten in (I)-(VIII) die These (6) belegen: Es gibt im Mittelfeld des deutschen Satzes eine syntaktische Auszeichnung der Topiks. Die Annahme, Topiks müßten im Deutschen notwendigerweise im Vorfeld plaziert werden, ist nicht richtig.

Deutsch gehört somit (hinsichtlich Topiks) zu den Diskurs-konfigurationalen Sprachen in der Terminologie von Kiss (1995): Es gibt eine syntaktische Position, in der Topiks ausgezeichnet werden.

3.   Folgerungen aus (6)

In diesem Abschnitt sollen einige Konsequenzen erörtert werden, die sich aus (6) ergeben. Dabei wird mit den Punkten (III)-(VII) auch zu Fragen Stellung bezogen, die in der Topikforschung seit langem kontrovers diskutiert werden.

(I)   Es sind die Satzadverbiale und keine anderen Adverbialtypen, die die Grenze zum Topikbereich bilden.

Man vergleiche (10) mit:

(21) a.   weil keiner heute zu spät gekommen ist
       b.   da fast jeder in diesem Zimmer gearbeitet hat

Eine nicht-referentielle Phrase kann einem Temporaladverbial wie in (21a) oder einem Lokaladverbial wie in (21b) vorangehen. Dies zeigt, daß vor diesen Adverbialen nicht nur Topiks stehen.

Nach Frey & Pittner (1998) gehören Temporaladverbiale zu der Klasse von Adverbialen, die zwar unterhalb der Satzadverbiale aber ansonsten sehr weit oben in der Struktur positioniert sind. Temporaladverbiale werden hiernach z.B. strukturell höher

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[10] Auf die Relevanz der gespaltenenen NPs für Fragen der Topikalität hat mich Karin Pittner aufmerksam gemacht.

basisgeneriert als Lokaladverbiale. Es genügt demnach, bei der Anwendung weiterer Tests die Satzadverbiale mit den Temporaladverbialen zu vergleichen. Die anderen Tests aus Abschnitt 2 führen nun ebenfalls zum Resultat, daß eine Phrase, die einem Temporaladverbial vorangeht, dadurch noch nicht als Topik ausgezeichnet wird. Für Test (VII) zeigen dies bereits die Beispiele (18b, d). Für Test (VI) aus Abschnitt 2 vergleiche man den folgenden Satz mit (16a):

(22) Es spielt Erwin Lehn heute abend für Sie

Auch Test (III) z.B. führt zum selben Ergebnis:

(23) a.   *$Sein_1$ Chef hat leider den $Otto_1$ heute beleidigt
      b. $Sein_1$ Chef hat den $Otto_1$ leider heute beleidigt

Beobachtungen wie diese unterstreichen auch die Wichtigkeit der systematischen Unterscheidung der verschiedenen Adverbialklassen.

(II) Ob im Vorfeld ein Topik steht oder nicht, ist unabhängig von der Topik-Auszeichnung im Mittelfeld.

Wie allgemein angenommen, kann im Vorfeld ein Topik positioniert sein[11], aber es muß dort kein Topik stehen. Letzteres erkennt man bereits daran, daß nicht-referentielle Ausdrücke, welche ja ungeeignet sind als Topiks, Vorfeld-fähig sind. Ob im Vorfeld ein Topik steht oder nicht, ist, wie man sich leicht klar macht, unabhängig von einer etwaigen Topik-Auszeichnung im Mittelfeld.

(III) Es kann mehrere Satztopiks im einfachen Satz geben.

Mehrere Konstituenten können einem Satzadverbial vorangehen. Dies ist etwa der Fall in (11g). Wenn mehrere Elemente im Topikbereich auftreten, können sie, wie erwartet, alle Bezugselemente kataphorischer Pronomen sein:

(24) Da er_1 sie_2 so liebt wird $Hans_1$ $Maria_2$ wahrscheinlich bald einen Antrag machen.

Einige Autoren vertreten allerdings die Ansicht, ein Satz könne maximal ein Satztopik aufweisen (Reinhart (1981, 1995), Haftka (1995), Zimmermann (1999), Molnár (1991, 1998), Jacobs (1999) für das Deutsche), dies geschieht jedoch oft ohne weitere Diskussion. Innerhalb der *aboutness*-Ansätze scheint die stillschweigende Annahme zu sein, daß sich die Relation des 'Worüber' nur auf ein Element beziehen kann. Dies aber ist nicht selbstverständlich. Es ist plausibel, anzunehmen, daß eine Proposition durchaus über mehrere Elemente ausgesagt werden kann. Um Reinharts Vergleich mit dem thematischen Katalog einer Bibliothek aufzunehmen: Ein Buch kann ebenfalls mehreren Themen zugeordnet werden. Man beachte, daß z.B. Rizzi (1997:290) für das Italienische, Lasnik & Saito (1992:78) für das Englische oder É. Kiss (1995a:211) für das Ungarische die Möglichkeit mehrerer Topiks pro Satz vorsehen. Für das Türkische ist es ebenfalls eine Standardannahme, daß mehrere Elemente im einfachen Satz Topiks sein können (Kornfilt (1997:205)).

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[11] Dies erkennt man z.B. an den folgenden Beipielen mit den Anwendungen der Tests (III), (V) und (VII):

  (i) a. Er_1 ist gut vorbeitet. $Fred_1$ wird daher einen interessanten Vortrag halten.
      b. /Peter wird heute ins Schloßcafé zum \TANzen gehen
      c. Peter jedenfalls wird morgen mithelfen

(IV) Es gibt Satztopiks in eingebetteten Sätzen.

Im folgenden Beispiel wird nach (6) im Komplementsatz ein Satztopik ausgezeichnet[12]:

(25) Maria denkt, daß Hans glücklicherweise den Auftrag bekommen wird

Auch in Infinitivsätzen sind Topiks möglich[13]:

(26) a. Er hat angekündigt, Maria wahrscheinlich zu wählen
      b. Er beabsichtigt, Volvos$_1$ in Zukunft nur blaue t$_1$ zu kaufen

Interessanterweise kann der Satztopikstatus einer Konstituente eines eingebetteten Satzes im Diskurs verfügbar sein:

(27) [A:] Erzähl mal etwas von Hans.
      [B:] a. Maria denkt, daß Hans glücklicherweise den Auftrag bekommen wird
            b. #Maria denkt, daß glücklicherweise Hans den Auftrag bekommen wird

Ein Sprecher kann sich die durch Verben wie 'denken' charakterisierte propositionale Einstellung einer anderen Person implizit zu eigen machen. Dabei kann er, wie (27a) zeigt, der eingebetteten Proposition die für die Diskursebene adäquate Informationsgliederung zuweisen.

Andere Verben der propositionalen Einstellung erlauben dieses Verfahren nicht:

(28) [A:] Erzähl mal etwas von Hans.
      [B:] #Maria bedauert, daß Hans anscheinend den Auftrag bekommen wird

(29) [A:] Erzähl mal, was Maria über Hans denkt.
      [B:] a. Maria bedauert, daß Hans anscheinend den Auftrag bekommen wird
            b. #Maria bedauert, daß anscheinend Hans den Auftrag bekommen wird

Bei Verben wie 'bedauern' dient der Gehalt und die Informationsgliederung des eingebetteten Satzes ausschließlich der Charakterisierung der propositionalen Einstellung des Matrixsubjektes.

(V) Anaphorische definite Phrasen sind im Deutschen nicht generell Topiks.

Definite Phrasen, die auf im Text bereits eingeführte Referenten bezogen werden, sind nicht per se Satztopiks. Man betrachte die Positionierung von *den Vater* bzw. *die Dame* jeweils im zweiten Satz:

(30) a. Hans wird den Eltern von Maria vorgestellt. Er hat gestern die Mutter getroffen und heute wird er wahrscheinlich den Vater kennenlernen.
      b. Gestern hat Otto eine elegante Geschäftsfrau kennengelernt. Er wird hoffentlich die Dame wiedersehen.

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[12] Die Möglichkeit von Topiks in eingebetteten Sätzen wird auch für andere Sprachen vorgesehen. Lasnik & Saito (1992:76) z.B. diskutieren folgendes Beispiel:

(i) I believe that this book$_1$, you should read t$_1$

Rizzi (1997:Fn. 15) gibt ein italienisches Beispiel mit einem Satztopik im eingebetteten Satz.

[13] Zum Topikstatus des abgespaltenen Nomens s. oben in Abchnitt 3 unter (VIII).

Natürlich können diese Konstituenten auch Topiks sein:

(31) a.   Hans wird den Eltern von Maria vorgestellt. Gestern hat er die Mutter getrof-
fen und heute wird er den Vater wahrscheinlich kennenlernen.

b.   Gestern hat Otto eine elegante Geschäftsfrau kennengelernt. Er wird die Da-
me hoffentlich wiedersehen.

Eine Theorie wie die von Jäger (1996), in welcher folgt, daß eine anaphorische definite
NP notwendigerweise Topik sein muß, ist somit mit (6) nicht verträglich.

Die Daten in (30) zeigen, daß mit (6) ein 'familiarity'-Konzept von Satztopiks nicht
vereinbar ist, welches annimmt, daß Topiks genau die Konstituenten des Satzes sind, die
auf im Diskurs bereits eingeführte bzw. durch 'bridging' verfügbare Referenten verwei-
sen. Wäre 'familiarity' des Referenten einer Konstituente eine hinreichende Bedingung
für den Topikstatus der Konstituente, so müßten die anaphorischen Phrasen in (30) To-
piks sein.[14]

(VI)   (6) spricht für das 'aboutness'-Konzept für Satztopiks.

Reinhart (1981) sieht diverse Schwierigkeiten, die sich mit dem in (4i) benannten 'fami-
liarity'-Konzept für Satztopiks ergeben. Das folgende Beispiel illustriert einen ihrer
Punkte.

(32)   Der FC geht voller Hoffnung in die neue Saison. Karl /MAIer soll die nötigen
\TOre schießen. Der neue Stürmer konnte vom Lokalrivalen abgeworben werden
und gilt als großes Talent.

Im zweiten Satz wird 'Karl Maier' als Topik verstanden. Dem Rezipienten muß aber der
Referent des Ausdrucks vorher nicht gegenwärtig sein. Dies wird durch den Folgesatz
sogar explizit gemacht, der erst die einführenden Informationen gibt.

Entsprechendes kann mit den durch (6) charakterisierten 'Mittelfeldtopiks' illustriert
werden. Der erste Satz eines Textes kann durchaus eine solche Topikphrase aufweisen.
Ein Zeitungsartikel könnte z.B. wie folgt beginnen:

(33)   Heute wird Karl /MAIer wahrscheinlich sein erstes \SPIEL bestreiten. Der neue
Stürmer vom FC ...

Im Topikbereich des Mittelfeldes kann auch eine indefinite NP auftreten, wie (34a) zeigt:

(34) a.   da Hans zwei Artikel erfreulicherweise beabsichtigt zu lesen
b.   da Hans erfreulicherweise zwei Artikel beabsichtigt zu lesen

Eine indefinite NP kann demnach Topik sein. Sie wird dann notwendigerweise 'stark'
interpretiert, d.h. im vorliegenden Fall spezifisch oder partitiv. (34a) hat nur die Lesart,
bei der der Sprecher sich auf zwei bestimmte Artikel bezieht oder auf eine bestimmte
Menge von Artikeln, zu denen die fraglichen zwei gehören. Man vergleiche dies mit
(34b), in dem die indefinite NP nicht topikal ist. Dieses Beispiel hat eine Lesart, bei der

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[14]   Man beachte, daß sogar thetische Sätze mit anaphorischen Konstituenten möglich sind. Das folgende
Beispiel findet sich in Jörke (1997):

(i) [A:]   Warum trägst du deine Uhr nicht?

[B:]   Die Batter\IE ist leer

Hans *zwei beliebige Kapitel lesen will. In dieser Lesart muß der Sprecher keinerlei Wissen bezüglich der Artikel besitzen.*

Eine indefinite NP führt einen neuen Diskursreferenten ein. Der Referent einer indefiniten NP ist somit für den Hörer nicht 'familiar'. 'Stark' gebrauchte indefinite NPs sind aber als Topik geeignet, da sich der Sprecher bei Verwendung 'starker' Indefinita auf bestimmte Individuen bezieht. Diese Verankerung des Ausdrucks wird vom Hörer akkomodiert.

Da eine 'stark' interpretierte indefinite NP Topik-fähig ist, vermag sie eine Katapher zu lizenzieren. Dies zeigt (35a):

(35) a.   Damit er$_i$ auf ein Fußballinternat gehen kann, will Maria einen jungen Spieler$_i$ unterstützen

b.   Maria will einen jungen Spieler$_i$ unterstützen, damit er$_i$ auf ein Fußballinternat gehen kann

Der Satz (35a) hat nur die Lesart, bei der Maria einen bestimmten Spieler unterstützen will. Man vergleiche hiermit (35b). Dieses Beispiel kann so verstanden werden, daß Maria irgendeinen beliebigen Spieler unterstützen möchte.[15]

Unsere Beobachtungen zeigen, daß sich (6) mit dem 'aboutness'-Konzept für Satztopiks verbindet und nicht mit dem 'familiarity'-Konzept. Zum einen wurde bezüglich der Beispiele (30) festgestellt, daß 'familiarity' keine hinreichende Bedingung für Topiks im Sinne von (6) sein könnte. Wollte man 'familiarity' wenigstens zur notwendigen Bedingung für Topiks erklären, dann zeigen Daten wie (33)-(35), daß das Konzept auf Sprecher-'familiarity' eingeengt werden müßte. Dies entspräche aber nicht dem gängigen Verständnis, welches 'familiarity' als Präsenz im 'common ground' von Sprecher *und* Hörer ansetzt.

Es ist damit klar, daß sich bei Annahme von (6) die Topik-Kommentar-Gliederung prinzipiell unterscheidet von der Hintergrund-Fokus-Gliederung. Mit der Informationsgliederung 'Hintergrund-Fokus' werden Sätze in einen bekannten, erwarteten Teil (Hintergrund) und einen informativen, neuen Teil (Fokus) aufgespalten. In einem Satz sind jene Konstituenten fokal, deren semantischer Wert sich nicht nach Anwendung bestimmter semantischer Operationen aus gegebenen Elementen ableiten läßt (Schwarzschild (1999)). Betrachten wir ein einfaches Beispiel:

(36) a.   Was wird Maria heute wahrscheinlich mit Otto machen?

b.   [$_{Hintergr.}$ Heute wird Maria wahrscheinlich Otto] [$_{Fokus}$ durch Kreuzberg führen]

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[15] Das Subjektpronomen *im zweiten Satz* von (35b) ist Topik (s. Abschnitt 4). Obwohl also der Antezedent in der fraglichen Interpretation nicht Topik ist, ist es doch das Pronomen, welches sich auf ihn bezieht. *Entsprechendes findet man in folgendem Satz:*

(i) Fast jeder Teilnehmer$_i$ nimmt an, daß er$_i$ wahrscheinlich gewinnen wird

Der Antezedent ist nicht Topik-fähig, das von ihm gebundene Pronomen ist aber (nach Abschnitt 4) ein Topik. Diese Beispiele zeigen, daß die Redeweise 'Topiks sind referentiell' etwas irreführend ist. Sie sollte ersetzt werden durch die Redeweise 'Topiks sind verankert'. Der semantische Wert eines Topiks muß eindeutig bestimmt sein. In einer Lesart von (35b) oder in (i) ist das Pronomen nicht referentiell. Das Pronomen wird aber verankert, da die Variable, die das Pronomen einführt, mit der Variablen, die der Quantor einführt, identifiziert wird.

Der informative Teil von (36b) als Antwort auf (36a) besteht aus der Auskunft 'durch Kreuzberg führen'. Deshalb ist im gegebenen Kontext von (36b) die Konstituente, die das Verb und die PP dominiert, eine fokale Konstituente.

Eine mögliche Topik-Kommentar-Gliederung des Satzes ist die folgende:

(36)' b.   [$_{Kom.}$ Heute wird] [$_{Topik}$ Maria] [$_{Kom.}$ wahrscheinlich Otto durch Kreuzberg führen]

'Otto', 'heute', das Satzadverbial und die Tempusinformation gehören somit in diesem Beispiel zum Hintergrund ohne Topik zu sein.

Wegen der Unabhängigkeit der beiden Gliederungsprinzipien 'Topik-Kommentar' und 'Hintergrund-Fokus' ist es nicht erstaunlich, daß ein Topik Teil des Fokusbereiches sein kann[16], s. (33) oder das folgende Beispiel:

(37) a.   Was ist heute passiert?
     b.   Heute hat [$_{Fokus}$ [$_{Topik}$ der Studentenvertreter] leider heftig protestiert]

(VII)   Die I-Topikalisierung per se ist keine Topik-Kommentar-Konstruktion.

Die sog. I-Topikalisierung zeichnet sich durch ein spezielles Intonationsmuster aus ('Wurzelkontour' nach Jacobs (1996)). Auf der ersten Akzentposition fällt der Ton zunächst etwas ab und steigt dann an. Auf der zweiten Akzentposition fällt er. Die erste Akzentposition befindet sich häufig im Vorfeld, sie ist aber auch im Mittelfeld möglich[17]:

(38) a.   √OTto ist ins \Kino gegangen   (und √MarIA in die \Oper)
     b.   Mindestens √EIn Gemälde hat Maria heute \JEdem Gast gezeigt
     c.   Heute hat Maria mindestens √EIn Gemälde \JEdem Gast gezeigt

Die I-Topikalisierung ist mit bestimmten inhaltlichen Eigenschaften verbunden. Die beiden hervorgehobenen Positionen sind jeweils kontrastiert zu inhaltlichen Alternativen. Bei skopussensitiven Ausdrücken führt die Konstruktion zu einer Skopusbeziehung, die den strukturellen Verhältnissen der Grundpositionen der Ausdrücke entspricht. In (38b, c) resultiert dies in einer Skopusanordnung, die invers ist zu der Oberflächenreihenfolge der Ausdrücke.

In der Diskussion dieser Konstruktion wird hin und wieder suggeriert, daß es sich bei der ersten hervorgehobenen Konstituente notwendigerweise um ein Satztopik handelt (so Büring (1995)). Diese Sichtweise ist mit unseren Überlegungen nicht vereinbar. Zunächst zeigen (38b, c), daß ein Element, welches nicht referentiell ist, mit der für die sog. I-Topikalisierung charakteristischen Betonung versehen werden kann. Ein solches Element kann nun aber auch unter dieser speziellen Betonung nicht in dem für Topiks reservierten Bereich des Satzes auftreten:

(39) a.   Heute hat Maria offenbar mindestens √EIn Gemälde \JEdem Gast gezeigt
     b.   ??Heute hat Maria mindestens √EIn Gemälde offenbar \JEdem Gast gezeigt

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[16]   So auch z.B. Jacobs (1984) und Molnár (1998)

[17]   Der Name I-Topikalisierung stammt von J. Jacobs. Jacobs setzt allerdings als Ziel dieser Bewegung (im Normalfall) das Vorfeld an (Jacobs (1996)).

Dies zeigt, daß die I-topikalisierte Phrase nicht notwendigerweise Topikstatus hat. Natürlich kann die Wurzelkontour auch mit einem Topik-fähigen Element assoziiert werden. Ein solches Element kann dann auch im Topikbereich auftreten, d.h. es kann als Topik ausgezeichnet werden:

(40) Heute wird √OTto wahrscheinlich in die \Oper gehen

Molnár (1998) kommt ebenfalls zu dem Ergebnis, daß die I-Topikalisierung unabhängig ist von der Auszeichnung eines Satztopiks. Sie spricht daher von I-Kontur.

(VIII) Oberhalb des Topikbereichs und unterhalb von C^0 gibt es eine Position für Elemente mit I-Kontur und für kontrastfokusierte Elemente.

Im letzten Punkt wurde darauf hingewiesen, daß die Zuweisung der I-Kontur an eine Phrase nichts mit einer etwaigen Topikauszeichnung zu tun hat. Diese Behauptung wird durch ein weiteres Phänomen bestätigt.

Zwischen der Position des Komplementierers bzw. des finiten Verbs in V2-Sätzen und dem durch (6) charakterisierten Topikbereich befindet sich die Zielposition einer Bewegung, der Elemente mit I-Kontur unterzogen werden können[18]. In diese Position können auch kontrastfokusierte Eemente gestellt werden. Daß diese Zielposition für Elemente mit I-Kontur oder Kontrastfokus nicht zum Topikbereich gehört, erkennt man an einer Reihe von Fakten:

(41) a. Obwohl ver√LIEren$_1$ Otto nie und \NIMmer glaubte, jemals t$_1$ lernen zu müssen

  b. da mindestens √EIn Gemälde heute erfreulicherweise \JEder betrachtete

  c. Weil GRÜN Hans die Tür gestrichen hat (und nicht ROT)

(41a) zeigt, daß diese Position Ziel einer Bewegung ist, die nicht Satz-gebunden ist (Brand et al. (1992)). In Abschnitt 8 wird in Punkt (viii) darauf hingewiesen, daß dies für die Topik-Voranstellung nicht zutrifft. Diese ist strikt Satz-gebunden. (41b) zeigt, daß in die fragliche Position Elemente mit I-Kontur plaziert werden können, die prinzipiell nicht Topik-fähig sind (vgl. (39b)). (41c) zeigt, daß unter Kontrastfokusierung ein Element in diese Position gestellt werden kann, das ohne spezielle Betonung ortsfest ist.

Es ist somit wichtig, den durch (6) benannten Topikbereich von der strukturell höher positionierten Zielposition der Bewegung unter I-Kontur oder Kontrastfokus strikt zu unterscheiden.

4. Pronomen

Wir wollen in diesem Abschnitt einen kurzen Blick auf Pronomen werfen. Dabei werden allerdings nur die für unser Thema unmittelbar relevanten Stellungen betrachtet. Es wird kein Versuch unternommen, die Syntax der Pronomen des Deutschen zu thematisieren. Die kanonische Position eines unbetonten Pronomens im Mittelfeld ist vor einem Satzadverbial:

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[18] Haider & Rosengren (1998) setzten ebenfalls eine solche Position nach der C-Position an. Sie nennen die Bewegung unter I-Kontur mit Zielposition im Mittelfeld 'T-Scrambling'. Diese Bezeichnung ist jedoch ebenso wie die Bezeichnung I-Topikalisierung nach den vorliegenden Überlegungen nicht ideal. Beide suggerieren ja, daß es sich hierbei um die Voranstellung eines Topiks handelt.

(42) weil er ihr wahrscheinlich das Buch gegeben hat

Aber es gibt auch Vorkommen von unbetonten Pronomen nach den Satzadverbialen (Lenerz (1993))[19]:

(43) a. weil wahrscheinlich gestern ein Mädchen es ihm gegeben hat
      b. da Otto leider den Filmstar ihr nicht vorgestellt hat

Es sind nun einige der Tests aus Abschnitt 2 auf Pronomen anwendbar:

(44) Ich erzähl dir mal was von $Otto_1$.
      a. Ich glaube, daß ihn_1 die Botschafterin erfreulicherweise heiraten wird
      b. #Ich glaube, daß erfreulicherweise die Botschafterin ihn_1 heiraten wird

(45) Ich habe etwas Neues über $Hans_1$ gehört.
      a. Gestern hat erfreulicherweise Maria ihn_1 in der Stadt getroffen. $Derselbige_1$ hat sich sehr darüber gefreut
      b. Gestern hat Maria ihn_1 erfreulicherweise in der Stadt getroffen. *$Derselbige_1$ hat sich sehr darüber gefreut

Die Daten zeigen, daß die Pronomen, die vor einem Satzadverbial positioniert sind, als Satztopiks fungieren, während dies für Pronomen nach einem Satzadverbial nicht gilt[20]. Referentielle Pronomen verhalten sich demnach so, wie man es angesichts von (6) erwartet.

   Betrachten wir Pronomen in der Präsentativkonstruktion:

(46) a. *Es hat er den Chef angerufen
      b. Es hat ihn (erstaunlicherweise) der Chef angerufen

Wie in Abschnitt 3 unter Punkt (VI) erwähnt, ist die Präsentativkonstruktion nicht möglich mit einem topikalen Subjekt. Ein topikales Objekt ist in der Konstruktion jedoch möglich. Nach Lenerz (1993) tritt ein Subjektpronomen stets vor dem Satzadverbial auf. Hierfür steht zwar eine Erklärung noch aus, aber für uns ergibt sich daraus, daß ein Subjektpronomen, im Unterschied zu einem Objektpronomen, notwendigerweise topikalisch ist. Dies ergibt die Grammatikalitätsverteilung in (46).

   Es kann nicht unerwähnt bleiben, daß auch nicht-referentielle Pronomen vor einem Satzadverbial positioniert werden:

(47) a. weil es wahrscheinlich schneien wird
      b. weil sich gestern Hans bedauerlicherweise beschwert hat

Kann man für (47a) annehmen, daß sich das Expletiv vor dem Topikbereich adjazent zur C-Projektion befindet, so sind die Stellungsmöglichkeiten des Reflexivs eines inhärent reflexiven Verbs sehr vielfältig:

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[19] Nach Lenerz kann ein unbetontes Personalpronomen nach einem Satzadverbial nur adjazent zu einem Subjekt auftreten. Mir scheint allerdings auch (43b) akzeptabel

[20] Damit widersprechen unsere Befunde der Behauptung von Erteschik-Shir (1997:21), wonach Pronomen notwendigerweise topikal seien.

(48) a. weil Hans sich gestern bedauerlicherweise beschwert hat
     b. weil Hans gestern bedauerlicherweise sich beschwert hat
     c. weil offenbar keiner sich die Ausstellung anschauen will
     d. weil die Ausstellung sich offenbar keiner anschauen will

Das Reflexivpronomen kann sich in vielen syntaktischen Nischen plazieren. Sein Vorkommen zwischen den beiden Topiks in (48a) oder zwischen einem Topik und dem Satzadverbial in (48d) sind daher weitere Belege seiner außerordentlichen syntaktischen Unrestringierheit, welche allerdings noch einer Erklärung harrt.

5. Topiks und Generizität

Mit Diesing (1992) rückten die Interpretationen indefiniter NPs ins Interesse der syntaktischen Diskussion: Abhängig von ihrer Position im Satz erhalten indefinite NPs unterschiedliche Deutungen. Nackte Plurale z.B. werden je nachdem, ob sie im Mittelfeld einem Temporaladverbial vorangehen oder folgen, unterschiedlich interpretiert:

(49) a. weil Väter an Weihnachten mit der Eisenbahn spielen
     b. weil an Weihnachten Väter mit der Eisenbahn spielen

Die indefinite NP in (49a) kann nur generisch verstanden werden: Für Väter gilt typischerweise, daß sie an Weihnachten mit der Eisenbahn spielen. In (49b) hingegen hat diese NP auch eine existentielle Lesart: An Weihnachten gibt es Väter, die mit der Eisenbahn spielen. Daneben gibt es auch die generische Lesart für (49b).

    Nach Diesing (1992) werden indefinite NPs außerhalb der VP 'stark' interpretiert (wobei die VP die Grundposition des Subjekts enthält). Die generische Interpretation ist eine der 'starken' Interpretationen, die existentielle Interpretation ist keine 'starke' Interpretation.[21] Bei Diesing stellt somit die VP den Bereich von 'existential closure' dar, wobei bei ihr jede Art von Adverbial die VP-Grenze markiert. Nach Frey & Pittner (1998) muß dieses Bild modifiziert werden. Es gibt durchaus bestimmte Adverbiale, die unterhalb der Grundposition des ranghöchsten Arguments basisgeneriert werden, z.B. Lokaladverbiale. Betrachten wir daher eine entsprechende Konstruktion mit einem Lokaladverbial:

(50) weil Väter im Park Fußball spielen

Man stellt fest, daß für diesen Satz eine existentielle Lesart des Subjekts möglich ist, d.h. das Subjekt hat den Bereich der 'existential closure' noch nicht verlassen
    Nach Frey & Pittner (1998) wird aber z.B. ein Temporaladverbial oberhalb der Basisposition des ranghöchsten Arguments basisgeneriert. Eine Phrase, die einem Temporaladverbial vorangeht, steht daher nicht mehr im Bereich von 'existential closure'. Dies gilt etwa für das Subjekt von (49a). Es wird deshalb 'stark' interpretiert. Die Subjekte in (49b) und (50) hingegen befinden sich innerhalb der Domäne von 'existential closure'.
    Eine andere Sichtweise der 'starken' Interpretation von indefiniten NPs vertreten Jäger (1996) und Erteschik-Shir (1997). Dieser Erklärungsansatz rekurriert auf das Topik-Konzept. Nach Jäger und Erteschik-Shir ist eine 'starke' Interpretation von indefiniten

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[21] Zu den 'starken' Interpretationen von Indefinita sollen hier neben der generischen die spezifische und die partitive Interpretation gezählt werden.

NPs nur dann möglich, wenn diese NPs Topiks sind. Auch die generische Interpretation eines nackten Plurals ist hiernach nur möglich, wenn dieser Topik ist. Zugrunde liegt diesem Ansatz die Setzung, daß die Deskription einer indefiniten NP nur dann in den Restriktor eines Operators geht, wenn diese NP topikalisch ist. Die generische Interpretation wird geknüpft an die Präsenz eines generischen Operators.

Wir müssen prüfen, ob sich dieser postulierte Zusammenhang zwischen Interpretation und Topikstatus mit unseren davon unabhängig entwickelten Topikkriterien bestätigen läßt. Es zeigt sich, daß dem nicht so ist: Eine indefinite NP kann eine generische Lesart haben, ohne Topik zu sein. Betrachten wir den folgenden Satz:

(51)   weil erfreulicherweise Väter an Weihnachten mit der Eisenbahn spielen

Das Subjekt weist hier die generische Lesart auf. Es ist höher als das Temporaladverbial positioniert und ist daher außerhalb des Bereichs von 'existential closure'. Zugleich steht es aber tiefer als das Satzadverbial, so daß wir mit (6) erwarten, daß es kein Topik ist. Nach (6) ist eine generisch interpretierte NP nur dann Topik, wenn sie vor dem Satzadverbial auftritt:

(52)   weil Väter erfreulicherweise an Weihnachten mit der Eisenbahn spielen

Die folgenden Tests aus Abschnitt 3 bestätigen unsere Vorhersagen:

'aboutness'-Kontext:
(53) Da wir gerade von Vätern sprechen
     a.   #Ich habe gehört, daß erfreulicherweise Väter an Weihnachten mit der Eisen-
            bahn spielen
     b.   Ich habe gehört, daß Väter erfreulicherweise an Weihnachten mit der Eisen-
            bahn spielen

Das Bezugselement kataphorischer Pronomen:
(54) a.   *Weil sie$_i$ ewig Kinder bleiben, spielen seltsamerweise Väter$_i$ an Weihnach-
            ten mit der Eisenbahn
     b.   Weil sie$_i$ ewig Kinder bleiben, spielen Väter$_i$ seltsamerweise an Weihnachten
            mit der Eisenbahn

Demonstrativpronomen:
(55) a.   Die Regierung will alleinerziehende Väter erfreulicherweise im nächsten Jahr
            unterstützen. ??Dieselbigen haben es wirklich verdient.
     b.   Die Regierung will erfreulicherweise alleinerziehende Väter im nächsten Jahr
            unterstützen. Dieselbigen haben es wirklich verdient.

Die Tests zeigen, daß generisch interpretierte nackte Plurale, die vor einem Temporaladverbial, aber nach einem Satzadverbial auftreten, keine Topiks sind. Die generische Interpretation einer indefiniten NP ist somit keine hinreichende Bedingung für ihren Status als Topik.

Der gleiche Befund ergibt sich für andere sogenannte 'starke' Interpretationen indefiniter NPs. Hierzu wird die partitive Interpretation einer indefiniten NP mit einem Numeral gezählt:

(56) a.   Hans hat drei Einhörner heute gefüttert
     b.   Hans hat heute drei Einhörner gefüttert

In (56b) weist das Objekt eine rein existentielle Lesart auf. Dies ist nicht möglich in (56a). Dieser Satz kann aber so verstanden werden, daß von drei Einhörnern aus einer gegebenen Menge die Rede ist.

Jäger (1999) will auch diese Lesart mit dem Topikstatus der indefiniten NP begründen. Wiederum ist dieser Erklärungsansatz mit unseren Überlegungen nicht kompatibel:

(57) Hans hat erfreulicherweise drei Einhörner heute gefüttert

Das Objekt in (57) hat die partitive Lesart, jedoch ist es nicht Topik:

(58) a.   *Ihre$_1$ Pfleger haben glücklicherweise drei Einhörner$_1$ heute gefüttert
     b.   Ihre$_1$ Pfleger haben drei Einhörner$_1$ glücklicherweise heute gefüttert

(59) [A:] Erzähl doch mal was von den Einhörnern.
     [B:] a. #Ich denke, daß Otto glücklicherweise drei Einhörner heute gefüttert hat
           b. Ich denke, daß Otto drei Einhörner glücklicherweise heute gefüttert hat

Wir schließen aus diesen Beobachtungen, daß auch aus dieser 'starken' Interpretation einer indefiniten NP nichts über ihrer etwaigen Topikstatus folgt.[22]

Dieser Befund wird durch ein weiteres Datum bestätigt. Viel diskutiert wurde in den vergangenen Jahren auch der Umstand, daß ein nackter Plural als Subjekt gewisser Prädikate nur generisch und nicht existentiell interpretiert werden kann (s. z.B. Diesing (1992))[23]:

(60) weil Frauen zielstrebig sind

Diesen Tatbestand wollen Jäger (1996), Erteschik-Shir (1997) durch die axiomatische Festsetzung ableiten, daß jeder Satz mindestens ein Satztopik aufweist. Die Überlegung ist die folgende: Das Satztopik kann im Prinzip lexikalisch unrealisiert sein. Dies ist nach Ansicht der Autoren der Fall, wenn das von einem Satz bezeichnete Ereignis als Satztopik fungiert. Die Autoren setzen zudem fest, daß ein Zustand nicht Topik sein könne. Die Prädikate, die die Interpretation wie in (60) zeigen, bezeichnen einen Zustand. Wenn sie kein weiteres Argument haben, muß daher nach Voraussetzung ihr Subjekt notwendigerweise Topik sein. Ist dies ein nackter Plural, muß dieser somit generisch interpretiert werden.

Dies ist eine Argumentationskette, die mit unseren Überlegungen nicht verträglich ist. Zwar wird ein nackter Plural als Subjekt dieser Prädikate notwendigerweise generisch interpretiert, aber ein solches Subjekt ist deshalb nicht notwendigerweise topikal (vgl.

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[22] Da eine NP im Topikbereich den Bereich von 'existential closure' verlassen hat, gilt natürlich die andere 'Richtung': Wenn eine indefinite NP Topik ist, dann kann sie nur 'stark' interpretiert werden (s. z.B. (52)). Eine 'stark' interpretierte indefinite NP erfüllt die Bedingung an Topiks, eindeutig verankerbar zu sein. Auch generisch interpretierte Ausdrücke als referentiell und daher als Topik-fähig in unserem Sinn aufzufassen ist seit Carlson (1978) eine gängige Vorstellung.

[23] Ursprünglich wurde angenommen, daß dies genau für die Prädikate gilt, die permante, essentielle Eigenschaften ausdrücken. Diese wurden von Carlson (1978) 'individual-level'-Prädikate (IL-Prädikats) genannt. Inzwischen ist jedoch bekannt, daß die Korrelation in dieser einfachen Weise nicht zutrifft (s. z.B. Jäger (1999a)).

(61a)). Auch eine definite NP als Subjekt eines solchen Prädikats muß nicht im Topikbereich auftreten (vgl. (61b)).

(61) a. weil glücklicherweise Frauen zielstrebig sind
     b. weil glücklicherweise Maria sehr intelligent ist

Durch diese Beobachtung ergibt sich auch, daß die Interpretation von (60) keine Evidenz ergibt für das Postulat, jeder Satz besitze ein (explizites oder implizites) Satztopik. Wenn man trotzdem die Notwendigkeit eines Satztopiks annehmen möchte[24], dann muß man aufgrund von (61) die Möglichkeit eines impliziten Topiks sowohl für Sätze vorsehen, die ein Ereignis beschreiben, als auch für solche, die einen Zustand beschreiben. Dies erschiene mir auch natürlicher als nur für Ereignisse einen potentiellen Topikstatus anzusetzen.

Seit Diesing wird häufig angenommen, daß die Subjekte jener Prädikate, die eine 'starke' Lesart ihres Subjekts erzwingen, in der Spec-Position von IP basigeneriert werden, während Subjekte anderer Prädikate VP-intern basisgeneriert sind. Wenn man dies annehmen möchte, folgt im Rahmen unsere Befunde, daß die Spec-Position von IP 'unterhalb' der Position der Satzadverbiale, d.h. unterhalb des Topikbereichs, anzusetzen ist. Dies bedeutet somit, daß die Annahme in Drubig (1992:174)), ein VP-externes Subjekt sei generell mit der 'aboutness'-Lesart assoziiert, nicht aufrecht erhalten werden kann.

Zusammenfassend läßt sich feststellen, daß das Vorgehen einiger Autoren, die 'starke' Interpretation einer indefiniten NP als hinreichende Bedingung für ihren Topikstatus anzusetzen, mit unseren Topikkriterien nicht verträglich ist.

6. Welche Elemente kommen als Satztopik in Frage?

Bislang haben wir bei unseren Überlegungen in erster Linie NPs in Argumentfunktion betrachtet. Aber auch andere Elemente kommen im Deutschen als Satztopik in Frage. Betrachten wir PPs als Argumente und als Adjunkte:

(62) a. weil Hans mit Maria sicherlich gut bekannt ist
     b. da heute in der Küche leider jemand gestürzt ist

Die Beispiele zeigen, daß nach (6) sowohl Argument-PPs als auch Adjunkt-PPs als Satztopiks möglich sind.[25]

Adverbien können als Satztopiks auftreten. Natürlich ist dies nur möglich, wenn sie referentiell sind. Man vergleiche (63a) und (b):

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[24] Z.B. um festsetzen zu können, daß jede Aussage die Prädikation eines Kommentars über einen Satzgegenstand darstellt.

[25] Die Präposition eines Arguments wie in (62a) kann als semantisch leer aufgefaßt werden. Jedoch wirft der topikale Status einer PP wie in (62b) ein Problem auf, auf das C. Maienborn hingewiesen hat. Die PP in diesem Satz denotiert die Eigenschaft, im Innern der Küche lokalisiert zu sein. Aber der Aussagegegenstand von (62b) ist nicht diese Eigenschaft, sondern die Innenregion der Küche. Aus diesem Grund nimmt Jacobs (1999) an, daß die semantische Repräsentation einer solchen PP ein referentielles Argument enthält, das diese Innenregion denotiert. Als Evidenz für diese Argumentstelle verweist Jacobs auf Phrasen wie 'überall in der Küche', bei denen auf die fragliche Argumentstelle zugegriffen wird.

(63) a.   Otto muß morgen hier wahrscheinlich eine Rede halten

     b.   *Otto muß oft wahrscheinlich eine Rede halten

Auch Sätze sind mögliche Satztopiks:

(64) Hans hat im letzten Jahr [dieses Buch zu lesen] anscheinend mehrmals versucht

Finite Sätze sind im Mittelfeld schlecht umzustellen. Für sie kann daher (6) nicht direkt zur Anwendung gelangen. Aber Test (III) aus Abschnitt 3 läßt vermuten, daß finite Sätze potentielle Satztopiks sind[26]:

(65) Alle haben es$_1$ behauptet. [Daß Maria unschuldig ist]$_1$ hat daher auch Otto geglaubt.

Wie verhalten sich Elemente in prädikativer Funktion? Sie lassen sich (marginal) vor ein Satzadverbial stellen, s. (66a, b). Die Voranstellung vor ein Satzadverbial ist besser als eine sonstige beliebige Umstellung im Mittelfeld, s. (66c):

(66) a.   (?)da Hans Politiker erstaunlicherweise geworden ist

     b.   (?)da Hans bescheiden erfreulicherweise geblieben ist

     c.   *da Hans erfreulicherweise bescheiden trotz des Ruhms geblieben ist

Eine Konstruktion, die als Paradebeispiel für eine Konstruktion gilt, die ein 'aboutness'-Topik auszeichnet, ist die Linksversetzung (z.B. Jacobs (1999)). Ein prädikatives Element ist in dieser Konstruktion möglich:

(67) Bescheiden, das ist Hans erfreulicherweise immer geblieben

Die Beispiele (66a, b) und (67) legen somit nahe, daß auch prädikative Elemente Topik-fähig sind. Dies weist darauf hin, daß Eigenschaften als Objekte konzeptualisiert werden können[27].

7.   Ein Blick auf einige andere Vorschläge

In diesem Abschnitt soll vergleichend auf einige neuere Arbeiten eingegangen werden, die für unser Thema unmittelbar einschlägig sind.

    Vallduví (1992), Vallduví & Engdahl (1996) schlagen eine dreiteilige hierarchische Informationsgliederung der Sätze vor:

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[26] Sätze können auch in der sogenannten Null-Topik-Konstruktion wegfallen, von der angenommen wird, daß sie nur Topiks betreffen kann:

    (i) [A:]   Der VfB Stuttgart hat wieder verloren

       [B:]   ∅ ist doch jedem schon bekannt

[27] Man beachte, daß ein Adjektiv in der Funktion eines Adverbials der Art & Weise in der Linksversetzung nicht möglich ist (Jacobs (1999)):

(i) *Sorgfältig so hat Otto das Buch gelesen

    Ein solches Adverbial ist nicht Topik-fähig. Dies läßt vermuten, daß ein Adverbial der Art & Weise von einem höheren semantischen Typ ist als Prädikative.

(68)   S = {focus, ground}   ground = {link, tail}

Vallduvís 'link'-Konzept nimmt Reinharts Charakterisierung der Topiks auf. Der 'link' eines Satzes gibt nach Vallduví dem Hörer an, wo er in seinem Informationszustand die Information des Satzes abspeichern soll. Vallduví setzt einen 'link' als Teil des Hintergrunds an. Mit 'tail' wird der Rest des Hintergrunds bezeichnet. Nach Vallduví ist ein 'link' stets Satz-initial. Desweiteren folgert er aus seiner Charakterisierung eines 'links', daß ein solcher nur dann ausgezeichnet wird, wenn ein im Vergleich zum Vorsatz neues Element als Gegenstand der Satzaussage gesetzt wird.

Vallduvís 'link'-Konzept ist mit unseren Beobachtungen zum Satztopiks im Deutschen nicht vereinbar. Zunächst ist festzustellen, daß das Satztopik im Deutschen auch dann strukturell ausgezeichnet wird, wenn der Gegenstand der Satzaussage bezüglich des Vortextes gleich bleibt.

(69)   In unserer Firma ist Hans$_1$ wahrscheinlich der beliebteste Kollege.
    a.   Jedoch wird der nette Kerl$_1$ leider die Firma bald verlassen.
    b.   #Jedoch wird leider der nette Kerl$_1$ die Firma bald verlassen.

Ebenfalls im Widerstreit steht Vallduvís Annahme, daß der 'link' stets Teil des Hintergrundes ist. In Abschnitt 3 wurde unter (VI) darauf hingewiesen, daß ein Satztopik im Fokusbereich eines Satzes auftreten kann. Deshalb ist es nicht möglich, die beiden Zweiteilungen Fokus-Hintergrund und Topik-Kommentar auf eine Dreiteilung zu reduzieren, wie dies Vallduví versucht. Schließlich ist Vallduvís Festlegung, 'links' seien stets Satz-initial, offensichtlich auf die durch (6) charakterisierten Satztopiks nicht übertragbar.

Meinunger (2000) betrachtet in seiner Untersuchung die Positionierung der Argumente im deutschen Mittelfeld. Er deutet jede Form von Scrambling im Deutschen als Voranstellung von Phrasen, die Topikstatus aufweisen. Desweiteren nimmt er an, daß topikale Phrasen gescrambelt werden müssen. Dabei ist Meinunger dem 'familiarity'-Konzept von Topik verpflichtet.

Das erste Problem aus unserer Sicht ist, daß Meinunger annimmt, daß sämtliche Adverbiale oberhalb der Grundpositionen der Argumente positioniert sind. Daraus folgt, daß alle Elemente, die im Mittelfeld irgendeinem Adverbial vorangehen, Topiks sein sollten. Es wurde in Abschnitt 3 unter (I) gezeigt, daß diese Analyse mit unserer Konzeption von Topik unvereinbar ist.

Problematisch für Meinungers Ansatz sind desweiteren Beispiele wie die folgenden:

(70)   a.   Otto wird wohl irgendetwas irgendjemandem zeigen wollen
     b.   In dieser Woche hat Otto mindestens eine Briefmarke jeder Besucherin gezeigt

In (70) stehen die Akkusativ-NPs nicht in ihrer Grundposition. Ihre Umstellung kann aber schwerlich mit Topikalität in Verbindung gebracht werden. Es erscheint daher nicht plausibel, Scrambling generell als Voranstellung von Topiks zu deuten.

Schließlich sind Daten wie in (30) des Abschnitts 3 im Rahmen von Meinungers Annahmen nicht erwartet. Anaphorische Phrasen sind 'familiar'. Als solche sollten sie nach Meinunger topikal sein, und sie sollten bewegt werden. Daß die anaphorischen Phrasen in (30) topikal seien, wurde bereits in Abschnitt 3 bestritten. Der folgende Beispiel zeigen sogar, daß anaphorische Phrasen in ihrer Grundposition verharren können:

(71) a.   Vor einer Woche wurde ein Mann unter Tatverdacht verhaftet. Laut Polizei hat heute wer dem Verdächtigen zur Flucht verholfen.

b.   Hans hat eine Menge Photos von Italien. Heute abend will er nun wieder netten Damen seine Fotos zeigen

W-Indefinita sind ortsfest[28], daher muß auch die nachfolgende Dativ-NP des zweiten Satzes von (71a) in der Grundposition stehen. Die existentielle Interpretation des indirekten Objekts im zweiten Satz von (71b) zeigt, daß die Phrase die Domäne von 'existential closure' nicht verlassen hat. Es ist anzunehmen, daß sie in ihrer Grundposition steht. Damit steht aber auch die nachfolgende anaphorische Phrase in ihrer Grundposition.

Jacobs (1999) gibt vier Eigenschaften an, die er mit prototypischen Topik-Kommentar-Strukturen assoziiert sieht:

(72) (i)   Das Topik ist informationsstrukturell separiert.

(ii)   Das Topik spezifiziert eine Argumentstelle eines Prädikats im Kommentar, und es wird von keinem anderen Element mit dieser Eigenschaft auf der S-Struktur k-kommandiert.

(iii) Das Topik gibt die Adresse an, unter der die Information des Satzes abgelegt wird.

(iv) Das Topik gibt den Bereich an, relativ zu dem der Gültigkeitsanspruch der Proposition eingeschränkt wird.

Bedingung (i) verweist auf die Tatsache, daß ein Satz mit Topik-Kommentar-Gliederung in zwei Schritten prozessiert wird (s. Abschnitt 1), wobei Jacobs annimmt, daß in ikonischer Entsprechung sowohl das Topik als auch der Kommentar einen Hauptakzent aufweisen. Nach der Bedingung (ii) steht ein prototypisches Topik an der Spitze des Satzes, d.h. außerhalb des Mittelfeldes. Bedingung (iii) entspricht der Charakterisierung der 'aboutness'-Topiks durch Reinhart (1981). Die Eigenschaft (iv) betrifft sogenannte Rahmen-setzende Ausdrücke wie in folgenden Beispielen:

(73) a.   weil im Mittelalter Mönche viel Bier tranken

b.   Im Fall eines Sieges wird die Mannschaft eine Belobigung erhalten

c.   Gesundheitlich geht es Peter gut

Diese Phrasen werden in der Literatur unter dem Stichwort 'Frame Topics' diskutiert[29]. Wie die Charakterisierung in (iv) zeigt, sind sie zu unterscheiden von 'aboutness'-Topiks.

Entscheidend für Jacobs Überlegungen ist die Annahme, daß in der Regel in einer bestimmten syntaktischen Konstruktion, die in der Literatur mit der Topik-Kommentar-Gliederung in Verbindung gebracht wird, das Topik nicht sämtliche, sondern nur einige Eigenschaften von (72) erfüllt. Die unterschiedlichen Topik-Konstruktionen sind daher lediglich durch Familienähnlichkeit aufeinander bezogen.[30]

Unsere Beobachtungen zur Auszeichnung der Topiks im Mittelfeld fügen sich nicht unmittelbar ein in die Charakterisierungen von Jacobs. Denn lediglich die Eigenschaft (iii) von (72) trifft für die Topik-Auszeichnung im Mittelfeld nach (6) zu.

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[28] Vgl. z.B. Haider & Rosengren (1998).

[29] Siehe für das Deutsche insbesondere Maienborn (1998).

[30] Jacobs illustriert seine Überlegungen an Hand dreier Konstruktionen: Linksversetzung, I-Topikalisierung und freies Thema.

Beginnen wir mit Eigenschaft (iv). Ein im Topikbereich nach (6) auftretendes Element muß natürlich kein rahmensetzender Ausdruck sein. (iv) ist aber auch keine hinreichende Bedingung für die Positionierung nach (6). Ein rahmensetzender Ausdruck tritt nur fakultativ im Topikbereich auf:

(74) a.   weil im Mittelalter erstaunlicherweise Mönche viel Bier tranken
      b.   weil erstaunlicherweise im Mittelalter Mönche viel Bier tranken

Und auch dies ist nur möglich für einen referentiellen rahmensetzenden Ausdruck:

(75) a.   *weil zu keiner Zeit erfreulicherweise Mönche viel Bier tranken
      b.   weil erfreulicherweise zu keiner Zeit Mönche viel Bier tranken

Dies zeigt nochmals, daß (6) 'aboutness'-Topiks charakterisiert. Ein Rahmen-setzender Ausdruck kann zwar zum Gegenstand der Satzaussage werden, aber nur, wenn er die Forderung an 'aboutness'-Topiks nach Verankerbarkeit erfüllt.

Die Eigenschaft (i) verbindet Jacobs mit einer intonatorischen Separierung. Die intonatorischen Separierung kann bei 'Mittelfeldtopiks' erfüllt sein, aber sie muß es nicht. Daß die Eigenschaft (ii) für die 'Mittelfeldtopiks' nicht erfüllt ist, ist unmittelbar klar.

In Haftka (1995) und Zimmermann (1999) wird angenommen, daß Satzadverbiale im Mittelfeld des deutschen Satzes die Grenze ziehen zwischen gegebenen Einheiten (Hintergrund) und neue Information beinhaltenden Einheiten (Fokus). Satzadverbiale k-kommandieren hiernach im Normalfall minimal den fokalen Bereich des Satzes. Dieser wird mit der VP identifiziert. Gegen diese Annahme spricht zunächst, daß in einem 'all focus'-Satz ein Satzadverbial auftreten kann:

(76) Was ist passiert?
      a.   Heute hat Hans Maria erstaunlicherweise den Ferrari überlassen
      b.   Heute hat ein Fan aus Stuttgart leider einen Fan aus Berlin verprügelt

Ein Satzadverbial muß aber auch nicht an der Grenze einer nur einen Teil des Satzes umfassenden Fokusdomäne stehen, wie (36) zeigt, hier wiederholt:

(36) a.   Was wird Maria heute wahrscheinlich mit Otto machen?
      b.   [Hintergr. Heute wird Maria wahrscheinlich Otto] [Fokus durch Kreuzberg führen]

Ein Problem mit Haftkas Ansatz ist weiterhin, daß sie anaphorische NPs stets aus der VP herausbewegen möchte, da diese 'bewußtseinspräsent' seien. Die oben in (71) angeführten Beispiele stellen daher auch für ihre Annahmen ein Problem dar.

8.   Syntaktische Eigenschaften der Topik-Voranstellung im Vergleich zu Scrambling und Vorfeldbesetzung

Die Positionierung eines Topiks vor ein Satzadverbial im Mittelfeld ist nach Frey & Pittner (1998) Resultat einer Bewegung. Mit dem Terminus Scrambling bezeichnet man gemeinhin beliebige Umstellungen von Satzgliedern im Mittelfeld. Es stellt sich somit die Frage, ob die Topik-Voranstellung eine Instanz von Scrambling ist, d.h., ob die Eigen-

schaften der Topik-Voranstellung die gleichen sind wie die Eigenschaften sonstiger Umstellungen im Mittelfeld. Daher soll nun die Topik-Voranstellung verglichen werden mit Umstellung von Elementen rechts vom Satzadverbial (nur letzteres soll im folgenden unter 'Scrambling' verstanden werden). Parallel dazu soll geprüft werden, ob die Topik-Voranstellung einer Phrase Eigenschaften mit der Bewegung einer solchen Phrase ins Vorfeld teilt.[31]

(i)   Topik-Voranstellung induziert wie Scrambling und Vorfeldbesetzung kein weak-crossover.

Die Voranstellung einer Phrase in den Topikbereich über ein koindiziertes Pronomen hinweg führt zu keiner Grammatikalitätsverletzung, d.h. sie induziert keinen weak-crossover -Effekt, (77a). Das gleiche gilt aber auch für Scrambling, (77b), und für Vorfeldbesetzung, (77c):

(77) a.   weil den $Hans_1$ erfreulicherweise $seine_1$ Vermieterin sehr nett behandelt

      b.   weil erfreulicherweise den $Hans_1$ $seine_1$ Vermieterin sehr nett behandelt

      c.   den $Hans_1$ behandelt $seine_1$ Vermieterin sehr nett

Aus dem fehlenden weak-crossover können also keine weiterreichenden Schlüsse über den Status der Topik-Voranstellung gezogen werden, zumal im Deutschen die Satz-interne Umstellung selbst einer quantifizierten Phrase zu keiner weak-crossover-Verletzung führt:

(78) a.   weil in dieser Stadt jeden $Studenten_1$ $seine_1$ Vermieterin freundlich behandelt

      b. Wen_1 behandelt $seine_1$ Vermieterin sehr freundlich?

(ii)   Topik-Voranstellung wird durch einen bestimmten Trigger ausgelöst. Ein entsprechender einfacher Trigger für Scrambling ist nicht bekannt.

Nach (6) müssen die topikalen Phrase des Mittelfeldes und nur diese der Topik-Voranstellung unterzogen werden. Eine entsprechende eindeutige Auszeichnung der Phrasen, die Scrambling unterzogen werden, ist bislang nicht bekannt.[32] Es wird zwar hin und wieder vorgeschlagen (z.B. von Diesing (1997)), daß die 'starke' Interpretation einer indefiniten NP bzw. die Tatsache, daß eine NP Bekanntes denotiert, der Trigger für Scrambling sei. Die Beispiele in (49b) und in (70) widerlegen jedoch diese Annahme. Es ist natürlich möglich, daß in der Zukunft eine Eigenschaft entdeckt wird, die alle ge-scrambelte Phrasen teilen. Aber diese wird, wenn (6) richtig ist, verschieden sein von der Topikeigenschaft.

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[31] Ein Vergleich mit der unter (VIII) in Abschnitt 3 angesprochenen 'Mittelfeldbewegung' unter I-Kontur bzw. Kontrastfokus in eine Position oberhalb des Topikbereichs wird im folgenden nicht durchgeführt. Zum einen sind deren Eigenschaften noch zu wenig bekannt, zum anderen hat diese Bewegung informationstheoretische Effekte, die von ganz anderer Art sind als die von uns thematisierten.

[32] Allerdings gehen Haider & Rosengren (1998:9) zu weit, wenn sie schreiben: "... the interpretation effect that is induced by Scrambling is found in unscrambled structures as well." Es gibt z.B. Skopusoptionen, die erst aufgrund von Scrambling entstehen:

      (i) da er mindestens ein $Gedicht_1$ fast jeder Dame t_1 vortrug

      Der Satz besitzt eine Lesart mit weitem Skopus der existentiell quantifizierten Phrase. Stünde die Phrase in ihrer Grundposition, wäre diese Lesart nicht gegeben. Daneben besitzt der Satz auch eine Lesart mit weitem Skopus des nicht-bewegten allquantifizierten Objekts.

Wenn im Mittelfeld kein Satzadverbial auftritt, ist u.U. an der Oberfläche nicht erkennbar, ob eine Topik-fähige Phrase im Topikbereich steht oder nicht. In einem solchen Fall liefern unsere Tests Evidenz für beide Analysen:

(79) a.   Da er$_1$ eine vorzügliche Dissertation geschrieben hat, wird Fred$_1$ einen Preis bekommen

     b.   Es wird heute Fred einen Preis bekommen.

In (79a) wird das Subjekt als Topik analysiert (vg. (III) in Abschnitt 2), in (79b) wird es als Nicht-Topik analysiert (vgl. (VI) in Abschnitt 2). Natürlich kann auch bei Fehlen eines Satzadverbials die Struktur informationstrukturelle Eindeutigkeit aufweisen. Eine Phrase kann z.B. nicht Topik sein, wenn ihr eine nicht Topik-fähige Phrase vorangeht, denn dann kann sie selbst nicht im Topikbereich stehen[33]:

(80)   *Sein$_1$ Vater kann an keinem Tag den Peter$_1$ von der Schule abholen

(iii)   <u>Es gibt Elemente, die der Topik-Voranstellung unterzogen werden können, die aber sonst keine Mittelfeldumstellung erlauben.</u>

Im Deutschen gibt es Elemente, die sich der Umstellung im Mittelfeld zu widersetzen scheinen. Dazu gehören verbnahe Dative und Genitive:

(81) a.   *weil Hans bedauerlicherweise dieses Anschlages einen Unschuldigen bezichtigte

     b.   *weil Otto leider dieser Prüfung die Kandidaten ausgesetzt hat

Interessanterweise lassen sich diese Elemente aber in den Topikbereich stellen:

(82) a.   weil Hans dieses Anschlages bedauerlicherweise einen Unschuldigen bezichtigte

     b.   weil Otto dieser Prüfung leider die Kandidaten ausgesetzt hat

Die fraglichen Elemente können auch der Vorfeldbesetzung unterzogen werden.
In Abschnitt 6 wurde darauf hingewiesen, daß prädikative Elemente tendenziell den gleichen Unterschied zwischen der Möglichkeit von Topik-Voranstellung und der Unmöglichkeit von Scrambling zeigen (vgl. (66)).
     Kontraste wie diese sind schwer zu erfassen, wenn man wie Hetland (1992), Laenzlinger (1998) oder Haider & Rosengren (1998) annimmt, daß Satzadverbiale im Mittelfeld überall basisgeneriert werden könnten. Denn es ist nicht klar, warum eine Umstellung dadurch grammatisch werden sollte, daß eine von der Umstellung unabhängige Konstituente zwischen die fraglichen Konstituenten plaziert wird. Nach Frey & Pittner (1998) hingegen haben die Satzadverbiale im Mittelfeld eine bestimmte Grundposition, und diese ist sehr hoch. Wenn die Satzadverbiale eine Grundposition besitzen, eröffnet dies die Möglichkeit, Bewegung in eine Position vor den Satzadverbialen prinzipiell zu unterscheiden von sonstiger Mittelfeldumstellung.

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[33]   Im folgenden Satz soll das Temporaladverbial mit flacher Betonung gesprochen werden. Unter Wurzelbetonung könnte es in der in Abschnitt 3 unter (VIII) identifizierten Position vor dem Topikbereich stehen. In diesem Fall könnte das Objekt im Topikbereich stehen.

(iv) In einer Verb-Projektion im Vorfeld ist kein Topik möglich. Scrambling ist hier möglich.

Die Frage, ob Topiks im komplexen Vorfeld auftreten können, d.h. ob sie dort gemeinsam mit einem verbalen Element stehen können, kann nicht direkt mit Hilfe von (6) beantwortet werden. Der Grund ist, daß Satzadverbiale generell im komplexen Vorfeld nicht möglich sind (Frey & Pittner (1998)):

(83) a.   ihre Theorie erklären wird sie uns hoffentlich heute
     b.   *hoffentlich ihre Theorie erklären wird sie uns heute
     c.   *hoffentlich erklären wird sie uns heute ihre Theorie

Kriterien aus Abschnitt 2 sind jedoch anwendbar:

(84) a.   Ich erzähl dir was von Otto.
          #den Otto/ihn treffen werde ich an Ostern
     b.   *[den Otto jedenfalls]/[ihn jedenfalls] treffen werde ich an Ostern
     c.   *[Volvos$_i$ nur blaue t$_i$ kaufen] wird auch Peter

Weder eine topikale lexikalische Phrase noch ein topikales Pronomen können im komplexen Vorfeld plaziert werden. Topik-Voranstellung innerhalb des komplexen Vorfelds ist somit nicht möglich. Scrambling hingegen ist hier möglich, wie (85b) zeigt:

(85) a.   Kindern den Sternenhimmel erläutert hat er schon oft
     b.   den Sternenhimmel$_i$ Kindern t$_i$ erläutert hat er schon oft

(v) Topik-Voranstellung kann wie Scrambling mehrmals angewandt werden. Dies ist nicht möglich bei Vorfeldbesetzung.

Dies wurde bereits in Abschnitt 3 unter (III) hervorgehoben. Man beachte, daß die Topiks in unterschiedlicher Reihenfolgen auftreten können:

(86) a.   weil heute Peter der Maria erfreulicherweise das Buch ausleihen wird
     b.   weil Peter der Maria heute erfreulicherweise das Buch ausleihen wird

Nach É. Kiss (1995a) gilt für die meisten Sprachen, die Topiks positionell auszeichnen, daß sie mehrere Topiks pro Satz zulassen und daß deren Ordnung frei ist.

Die Iterierbarkeit in unterschiedlicher Reihenfolge gilt auch für Scrambling, aber sie gilt nicht für die Vorfeldbesetzung. Das Vorfeld kann nur durch eine Phrase besetzt werden.

(vi) Topiks im Mittelfeld sind wie gescrambelte Phrasen transparent für Extraktion. Dies gilt nicht für Phrasen im Vorfeld.

Ist eine Phrase für Extraktion durchlässig, so bleibt diese Eigenschaft erhalten, wenn sich die Phrase im Topikbereich des deutschen Mittelfeldes befindet:

(87) a.   Über Linguistik$_i$ hätte Otto [einen solch schönen Artikel t$_i$] leider niemals verfaßt
     b.   Was$_i$ hat Hans heute [t$_i$ zu lösen] leider vergeblich versucht

Aus einem Verbzweit-Satz kann nichts herausbewegt werden. Dies gilt auch für eine Subkonstituente der Phrase im Vorfeld[34]:

(88) *Über Linguistik$_1$ meint Karl [[einen solch schönen Artikel t$_1$]$_2$ hätte Otto t$_2$ niemals verfaßt]

(vii) <u>Topik-Voranstellung induziert wie Scrambling und im Unterschied zu Vorfeldbesetzung keine Barriere.</u>

Die Topik-Voranstellung einer Phrase im Mittelfeld blockiert weder eine darüber hinweggehende Topik-Voranstellung einer anderen Phrase noch irgendeine andere Bewegung. Hingegen ist, wie bereits im letzten Punkt vermerkt, keine Bewegung aus einem Verbzweit-Satz möglich:

(89) a.   Maria wird das Buch$_2$ dem Hans$_1$ erfreulicherweise t$_1$ t$_2$ ausleihen
      b.   *Das Buch$_2$ hoffe ich [dem Hans$_1$ wird Maria t$_1$ t$_2$ ausleihen]

(viii) <u>Topik-Voranstellung ist wie Scrambling und ungleich Vorfeldbesetzung Satzgebunden.</u>

Es ist nicht möglich, eine Phrase aus einem eingebetteten Satz in den Topikbereich des übergeordneten Satzes zu bewegen:

(90) *daß Eva dem Hans$_1$ wahrscheinlich glaubt, [t$_1$ helfen zu müssen]

Dies steht im direkten Gegensatz zur Vorfeldbesetzung, welche nicht Satz-gebunden ist:

(91) a.   Ich erzähl dir mal was von Otto.
            Den Otto$_1$ behauptet Maria, [daß eine Norwegerin t$_1$ heiraten wird]
      b.   Dieses Buch, das$_1$ hat Maria mich überredet [t$_1$ zu kaufen]

In (91a) wird der Test (I) aus Abschnitt 2 durch ein Element, welches lang bewegt wurde, erfüllt. In (91b) ist das resumptive Pronomen der Linksversetzungskonstruktion lang bewegt worden. Es wurde bereits oben darauf hingewiesen, daß die Linksversetzung als Paradebeispiel einer Topikkonstruktion gilt (vg. Jacobs (1999)).

(ix) <u>Topik-Voranstellung und Vorfeldbesetzung unterscheiden sich in den kontextuellen Anforderungen</u>

Die bislang betrachteten Eigenschaften sind hauptsächlich syntaktischer Natur. Daneben gibt es aber einen primär pragmatischen Unterschied, dem wir uns jetzt zuwenden wollen. Betrachten wir die folgenden Beispiele:

(92) a.   Vor zwei Tagen hat einigen Rentnern angeblich die Polizei Handschellen angelegt
      b.   Einigen Rentnern behauptet Maria, daß die Polizei Handschellen angelegt hat

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[34] Diese Beobachtung ist für unsere Gegenüberstellung nur relevant, wenn man der Standardannahme folgt, daß es im Deutschen Verbzweit-Sätze mit Komplementstatus gibt und daß Extraktion aus ihnen syntaktisch blockiert wird. Gewichtige Argumente gegen diese Annahmen finden sich in Reis (1997). Derselbe Vorbehalt gilt gegenüber der Beobachtung bezüglich Vorfeldbesetzung im folgenden Punkt (vii).

c. Heute hat im Eisbärbecken erstaunlicherweise ein Zoobesucher ein Bad genommen

d. Im Eisbärbecken behauptet Karl, daß ein Zoobesucher ein Bad genommen hat

Die Sätze (92a) und (c) sind zwar markiert, da die Satzglieder im Mittelfeld in nicht-kanonischer Reihenfolge auftreten. Aber die Sätze verlangen nicht notwendigerweise einen speziellen textlichen oder situativen Bezug. Dies ist anders für (92b) und (d). Damit diese Sätze angemessen sind, müssen die Phrasen im Vorfeld von (92b, d) auf Gegebenes bezogen werden können[35]. Passende Kontexte könnten z.B. sein:

(93) a. Die älteren Herrschaften wurden ganz wild. Einigen Rentnern behauptet Maria, daß die Polizei Handschellen angelegt hat

b. Im Berliner Zoo passiert doch immer wieder verblüffendes. Im Eisbärbecken behauptet Otto, daß ein Zoobesucher ein Bad genommen hat

In (93a, b) wird durch die Vorfeldphrase des zweiten Satzes jeweils ein Objekt bezeichnet, das Element einer Menge ist, welche im ersten Satz eingeführt wird[36]. Die Element-Menge-Beziehung ist eine der Möglichkeiten der kontextuellen Bezugnahme, die Identitätsbeziehung eine weitere. Es soll hier nicht der Versuch gemacht werden, zu bestimmen, welche verschiedenen Möglichkeiten der kontextuellen Bezugnahme bestehen. Wichtig für unsere Überlegungen ist, daß das Dativ-Objekt und die Lokalangabe im Vorfeld von (92b) bzw. (d) spezielle Forderungen an den Kontext stellen, während die Mittelfeldauszeichnung dieser Elemente als Satztopiks in (92a) bzw. (c) keine kontextuellen Anforderungen nach sich zieht. Man macht sich leicht klar, daß letzteres auch für Scrambling gilt.

Im folgenden sind die Unterschiede zwischen den drei betrachteten Bewegungen nochmals aufgeführt[37]:

(94)

	Topik-Voranstellung	Scrambling	Bewegung ins Vorfeld
(ii) Einfacher Trigger	√	*	
(iii) Bewegt spezielle Genitive/ Dative	√	*	√
(iv) mögl. in V-Projektion im Vorfeld	*	√	
(v) Iterierbar	√	√	*
(vi) Bewegte Phrase ist transparent	√	√	*
(vii) Induziert Barriere	*	*	√
(viii) Satz-gebunden	√	√	*
(ix) notw. Kontextbezug der Phrase	*	*	√

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[35] Natürlich haben die Sätze auch Verwendungen, bei denen die Phrasen im Vorfeld den minimalen Fokus darstellen, d.h. bei denen diese Sätze z.B. Antworten auf entsprechende W-Fragen sind. Diese Vewendung spielt für unsere Überlegungen keine Rolle.

[36] Für (93b) gilt dies natürlich nur unter Berücksichtigung der Überlegung, auf die Fn. 25 verweist.

[37] Für die Eigenschaft (ii) bei 'Vorfeldbesetzung' siehe Abschnitt 9, die Eigenschaft (iv) ist für Vorfeldbesetzung nicht einschlägig.

9.　Einige Schlußfolgerungen

In diesem abschließenden Kapitel sollen einige Schlußfolgerungen aus der Matrix (94) gezogen werden.

Die Eigenschaft (ii) von (94) betrifft die Tatsache, daß die durch (6) charakterisierte Voranstellung im Mittelfeld genau die Elemente mit Topikstatus betrifft. Im Unterschied hierzu hat nach unseren Kriterien die Umstellung von Phrasen unterhalb der Satzadverbiale (Scrambling) nichts mit Topikalität zu tun. Da die Topik-Voranstellung an eine bestimmte Eigenschaft geknüpft ist, fügt sie sich in die heute bevorzugte Sichtweise von Bewegung, wonach Bewegung genau dann stattfindet, wenn eine Eigenschaft bzw. ein Merkmal lizenziert wird. Insbesondere Rizzi (1997) hat dafür argumentiert, daß auch pragmatische Eigenschaften durch Merkmale kodiert werden, die zu lizenzieren sind. Hiernach werden etwa fokale oder topikale Phrasen in die Spec-Positionen entsprechender funktionaler Projektionen bewegt (FocP bzw. TopP), wo die Lizenzierung stattfindet ('Fokus-' bzw. 'Topik-Kriterium').

Wenn wir uns dieser Überlegung anschließen, folgt aus (6), daß im Mittelfeld des deutschen Satzes direkt oberhalb der Grundposition der Satzadverbiale eine TopP bzw. eine Folge von TopPs anzusetzen ist. Zwei der im letzten Abschnitt genannten Eigenschaften geben der Annahme von TopPs im Mittelfeld zusätzlich eine gewisse empirische Plausibilität. Durch die Topik-Voranstellung können Elemente bewegt werden, die nicht zu scrambeln sind (Eigenschaft (iii)). Was immer der Grund für Scrambling sein mag, Topik-Voranstellung dient dazu, das Topik-Kriterium zu erfüllen. Dieser Bewegung können somit alle Phrasen unterzogen werden, die das Topik-Merkmal tragen können. Durch die Annahme von TopPs (und dem Topik-Kriterium) kann solchen prinzipiellen Unterschieden zwischen Topik-Voranstellung und Scrambling Rechnung getragen werden. Die zweite Eigenschaft, die durch das Postulat strukturell ausgezeichneter Topikpositionen leichter zu erfassen ist, ist die Eigenschaft (iv). Daß keine Topiks im komplexen Vorfeld auftreten können, kann dann durch die Annahme erfaßt werden, daß nur Segmente unterhalb der ausgezeichneten Topikprojektion Teil der verbalen Projektion im Vorfeld sein können.

Rizzi (1997) schlägt vor, die CP-Projektion der Satzstruktur durch die folgende Kaskade funktionaler Projektionen zu ersetzen:

(95)　ForceP　　TopP*　　FocP　　TopP*　　FinP

Die verschiedenen Projektionen, die die A'-Projektion CP ersetzen, sind nach Rizzi ebenfalls A'-Projektionen. Da die Projektionen in (95) als Auffächerung der C-Domäne gedacht sind, stellt sich in Anbetracht unserer Beobachtungen unmittelbar das folgende Problem. Unter der C-Domäne eines deutschen Satzes versteht man gemeinhin den Bereich, der das Vorfeld und die linke Satzklammer umfaßt. Bereiche des Mittelfeldes wurden bislang nicht darunter subsumiert, so daß sich die durch (6) bestimmte Domäne nicht unmittelbar einer Projektion von (95) zuordnen läßt.

Da aber topikale Phrasen auch im Vorfeld auftreten können, könnte man versucht sein vorzuschlagen, daß die Kaskade funktionaler Projektionen in (95) nicht nur das Vorfeld 'abdeckt', sondern in das Mittelfeld 'hineinreicht'. Der von (6) identifizierte Topikbereich wäre unter dieser Annahme durch TopPs im Sinne von (95) aufgespannt. Ein Topik im Vorfeld stünde ebenfalls im Spec einer TopP. Der Unterschied zwischen 'äußerem Top' (d.h. einer Top-Projektion, die das Vorfeld konstituiert) und 'innerem Top' (d.h. einer Top-Projektion, die den Topikbereich des Mittelfeldes mitkonstituiert) wäre lediglich das Resultat der Oberflächenposition des finiten Verbs:

(96) [$_{TopP}$ dem Hans$_1$ [hat [$_{TopP}$ die Maria$_2$ [SADV t$_2$ t$_1$ geholfen]]]]

Es ist jedoch unmittelbar deutlich, daß dieser Ansatz nicht durchführbar ist. Dies ergibt sich insbesondere aus dem im letzten Abschnitt angeführten Unterschied zwischen der Vorfeldbesetzung und der Topik-Voranstellung bezüglich Lokalität (Eigenschaft (viii)). Wenn 'äußeres Top' identisch wäre mit 'innerem Top', könnte nicht erklärt werden, warum ein 'inneres Top' nur von Phrasen desselben Satzes angesteuert werden kann, während ein 'äußeres Top' auch mögliche Zielposition von Elementen aus eingebetteten Sätzen ist. Desweiteren induziert ein 'inneres Top' keine Barriere für andere Mittelfeldtopiks oder für die Bewegung ins Vorfeld, während, wenn man Verbzweit-Komplementsätze annimmt (s. jedoch Fn. 34), zu erfassen ist, daß ein 'äußeres Top' jede weitere Bewegung blockiert.

Die Eigenschaft (ix) aus Abschnitt 8 zeigt jedoch, daß sich 'Vorfeldtopiks' und 'Mittelfeldtopiks' nicht nur in ihren syntaktischen Eigenschaften unterscheiden. Die Daten (92b, d) zeigen, daß Topiks im Vorfeld eine Diskursabhängigkeit aufweisen, die bei Mittelfeldtopiks nicht zu finden ist. Diese Eigenschaft der 'Vorfeldtopiks' erinnert an Vallduvís 'link'-Konzept (vgl. Abschnitt 7), welches wir für 'Mittelfeldtopiks' zurückgewiesen haben. In einem Theorierahmen, welcher pragmatische Eigenschaften wie Topikalität, fokaler Status oder Diskursgebundenheit in der Syntax kodieren will, sollten daher 'Vorfeldtopiks' nicht in derselben funktionalen Projektion 'geprüft' werden wie 'Mittelfeldtopiks'.

Ich werde daher nicht dem Vorschlag Rizzis in (95) folgen, sondern an der traditionellen Vorstellung festhalten, daß die Vorfeldposition des deutschen Satzes durch die Spec-Position von CP konstituiert wird. Ebenfalls der Tradition folgend nehme ich an, daß der C-Kopf mit unterschiedlichen Merkmalen ausgestattet sein kann. Für alle (nichtdefektiven) Merkmale, die in einem C-Kopf auftreten können, gilt, daß sie eine Konstituente mit demselben Merkmal im Vorfeld lizenzieren. Zu diesen Merkmalen gehören z.B. das wh-Merkmal für Fragesätze und das Fokus-Merkmal für Sätze mit vorangestelltem fokalem Element. Desweiteren soll das 'link'-Merkmal dazugehören. Dies dient dazu, die Vorfeldbesetzung in Sätzen wie (92b) und (d) zu lizenzieren. Die Phrasen im Vorfeld dieser Beispiele stellen an den Kontext eine 'familiarity'-Bedingung. Die durch das 'link'-Merkmal lizenzierten 'familiarity'-Topiks sind zu unterscheiden von den durch (6) ausgezeichneten 'aboutness'-Topiks des Mittelfeldes. Für diese sollen TopPs angesetzt werden.

Das Bild wird dadurch komplizierter, daß bekanntermaßen nicht jede Vorfeldbesetzung zu kontextuellen Anforderungen führt. Betrachten wir zunächst die folgenden Beispiele, die Lesarten mit vollkommen unmarkierter Vorfeldbesetzung aufweisen:

(97) a.   Keiner konnte die Aufgabe lösen
     b.   Hans schaut sich jedes Fußballspiel an
     c.   Einem Mitbewohner wurde im Park die Geldbörse entwendet
     d.   Vor zwei Tagen konnte Paul das Problem lösen
     e.   Im Mittelalter haben Mönche viel Bier getrunken

Die Sätze in (97) sind neutral, insbesondere sind sie kontextuell neutral. Sie stellen keine Forderungen nach einem Bezug auf Gegebenes. Dabei kann die Phrase im Vorfeld ein 'aboutness'-Topik sein. (97b) z.B. kann so verstanden werden, daß *Hans* als Topik aufgefaßt wird. In (97) befinden sich Subjekte transitiver Verben, das Dativ-Objekt einer Passivkonstruktion, ein Temporaladverbial bzw. ein sog. rahmensetzendes Adverbial im Vorfeld.

Die folgenden Sätze sind zwar nicht unmarkiert, aber auch hier stellen die Vorfeldelemente nicht notwendigerweise kontextuelle Anforderungen:

(98) a.   Einigen Rentnern hat angeblich die Polizei Handschellen angelegt

b.   Im Eisbärbecken hat erstaunlicherweise ein Zoobesucher ein Bad genommen

Betrachten wir zunächst die Daten in (97). Gisbert Fanselow (p.M.) hat vorgeschlagen, Sätze dieser Art als Instanz von sog. 'stylistic fronting' zu analysieren. Mit diesem Namen wird eine Voranstellungskonstruktion im Isländischen und Färöischen bezeichnet, bei der in Sätzen, die kein Satz-internes Subjekt aufweisen, eine andere Kategorie in die Subjekt-Position bewegt wird (vgl. Holmberg (2000)). Eine wichtige Bedingung für 'stylistic fronting' ist, daß jeweils nur jenes Satzglied des gleichen Satzes in die leere Subjektposition bewegt werden kann, welches von der Subjektposition minimal k-kommandiert wird. Nach Holmberg (2000) dient 'stylistic fronting' lediglich dazu, die Forderung der fraglichen Spezifikator-Position nach Füllung mit phonetischem Material zu erfüllen. Homberg zeigt, daß 'stylistic fronting' in bestimmten Konstruktionen mit der Füllung der Position durch ein Expletiv alterniert.

Es kann hier nicht der Versuch gemacht werden, den Vorschlag Fanselows auszuarbeiten. Aber auffallend ist, daß sich die Sätze in (97) gerade dadurch auszeichnen, daß in ihnen jeweils jene Phrase im Vorfeld steht, die die höchste Mittelfeldposition aufweisen würde. Dies gilt in (97a, b) für die transitiven Subjekte. Im Passivsatz (97c) hingegen hat das Dativobjekt eine höhere Basisposition als das Lokaladverbial und als das Subjekt. Ein Temporaladverbial wie in (97d) oder ein rahmensetzendes Adverbial wie in (97e) haben nach Frey & Pittner (1998) eine höhere Basisposition als ein transitives Subjekt.

Die Vorfeldphrasen in (97b-e) können jedoch auch als Topiks aufgefaßt werden. Man beachte aber, daß sie auch dann das Vorfeld durch 'stylistic fronting' erreichen können. Sie haben als Topiks vor der Vorfeldplazierung die höchste Topikposition des Mittelfeldes eingenommen.

Die Annahme, daß die Sätze in (97) in der unmarkierten Lesart durch 'stylistic fronting' des am höchsten positionierten Mittelfeldelementes entstehen, erlaubt die folgende Vorhersage für das Subjekt in (97a). Dieses ist nicht topikfähig. Wenn es durch 'stylistic fronting' in die Vorfeldposition gelangt ist, dann nicht aus einer Topikposition. Daraus folgt, das kein 'stylistic fronting' vorliegen kann, wenn ein Satzadverbial oder gar ein Satztopik auftritt, da diese dem Vorfeld näher sind als eine Mittelfeldposition von 'keiner'[38]:

(99) a.   Keiner konnte bedauerlicherweise die Aufgabe lösen

b.   Keiner konnte die Aufgabe bedauerlicherweise lösen

Im Unterschied zu (97a) besteht bei diesen Beispielen die Tendenz, das Subjekt im Vorfeld zu betonen. Einher geht damit eine fokusierte Lesart des Subjekts. In (99a) kann wegen dem Satzadverbial kein 'stylistic fronting' vorliegen, in (99b) wird dies darüber hinaus von dem topikalen Objekt verhindert.

Betrachten wir nun die Daten in (98). Diese Beispiele weisen eine nicht-kanonische Reihenfolge der Satzglieder auf. In (98a) geht ein Objekt einem Satzadverbial und dem transitivem Subjekt voraus. In (98b) trifft dies auf ein Lokaladverbial zu, welches nach Frey & Pittner (1998) seine Grundposition unterhalb der Grundposition des transitiven

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[38] Nur unter I-contor oder Kontrastfokus könnte 'keiner' in den folgenden Beispielen zugrundeliegend eine Spitzenstellung im Mittelfeld einnehmen (vgl. (VIII) von Abschnitt 3.).

Subjekts hat. Die nicht-kanonische Reihenfolge führt dazu, daß die Phrasen im Vorfeld eine hohe Salienz aufweisen. Man beachte aber, daß sich die gesteigerte Salienz gleichermaßen ergibt, wenn die fraglichen Phrasen im Topikbereich am Beginn des Mittelfeldes auftreten:

(100) a.　da einigen Rentnern angeblich die Polizei Handschellen angelegt hat
　　　b.　da im Eisbärbecken erstaunlicherweise ein Zoobesucher ein Bad genommen hat

Diese Beobachtung legt nahe, daß auch für die Sätze in (98) eine Ableitung besteht, bei der die strukturell höchste Phrase des Mittelfeldes durch 'stylistic fronting' in das Vorfeld angehoben wird.

Damit ergibt sich das folgende Bild. Die Spezifikatorposition der CP eines deutschen Verbzweit-Satzes muß durch eine Konstituente besetzt werden. Dies kann auf unterschiedliche Weise geschehen. Eine erste Möglichkeit ist die Einsetzung eines Expletivs in diese Position. Eine andere Möglichkeit ist, die Position durch 'stylistic fronting' mit dem höchsten Mittelfeldelement zu besetzen. Nach Holmberg (2000) dienen die Einsetzung eines Expletivs und 'stylistic fronting' lediglich dazu, die Forderung nach phonologischem Material in der fraglichen Position zu erfüllen. Es wird durch diese Operationen kein zusätzlicher semantischer bzw. pragmatischer Effekt erzielt. Dies ist anders bei der dritten Möglichkeit, die Vorfeldposition zu füllen. In diesem Fall ist der C-Kopf mit semantisch/pragmatisch zu interpretierenden Merkmalen ([wh], [fok] oder [link]) ausgestattet. Es ist somit nur diese letzte Art der Vorfeldbesetzung, bei der qua Vorfeldbesetzung spezifische semantische oder pragmatische Effekte erzielt werden.[39] Unter dieser Art der Vorfeldbesetzung ist für uns im folgenden jene relevant, die einen 'link' betrifft.

Sind diese Behauptungen empirisch zu überprüfen? Schließlich haben die Sätze in (98) auch dann eine spezifische pragmatische Eigenschaft, wenn sie auf eine 'zugrundeliegende' Mittelfeldserialisierung (vgl. (100)) zurückgeführt werden. Man beachte jedoch, daß diese pragmatische Eigenschaft verschieden ist von der eines 'links'. Während es sich in (98) (wie in (100)) um die Salienz der strukturell höchsten Phrase handelt, geht es bei der Vorfeldbesetzung durch einen 'link' um Diskursangebundenheit.

'Stylistic fronting' ist eine Operation, die nur eine Phrase desselben Satzes betreffen kann. Die Vorfeldbesetzung durch einen 'link' hingegen ist nicht Satz-gebunden. Sie kann eine Phrase desselben Satzes betreffen, aber sie muß es nicht. Betrachten wir hierzu das folgende Beispielpaar:

(101)　　　Erstaunliches ist passiert!
　　　a.　Das neue Buch von Rizzi hat Hans Maria zu lesen empfohlen
　　　b.　#Das neue Buch von Rizzi hat Hans Maria zu lesen veranlaßt

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[39] Auch Pronomen können'stylistic fronting' unterzogen werden. Dies ist in (ib) für ein Objektpronomen illustriert:

(i) a. Da ihn Maria lange nicht mehr gesehen hat (wird sie den Hans heute anrufen)
　　b. Ihn hat Maria lange nicht mehr gesehen. (Deshalb wird sie den Hans heute anrufen)

Allerdings sind entsprechende Beispiele mit einem Objekt-*es* nicht möglich. Ein solches kann nicht durch 'stylistic fronting' ins Vorfeld gelangen. Ein Objekt-*es* im Vorfeld scheint stets ein 'link' zu sein, so auch im folgenden Beispiel aus Gärtner & Steinbach (2000):

(ii) [A:]　Wie ist denn das Kind zu dem Buch gekommen?
　　 [B:]　Es hat ihm jemand geschenkt

Die Sätze (101a) und (b) unterscheiden sich in ihrer Angemessenheit im gegebenen Kontext. Dieser pragmatische Unterschied kann mit einem syntaktischen Unterschied der beiden Sätze erklärt werden. Die Infinitivkonstruktion in (101a) erlaubt, kohärent konstruiert zu werden, der Infinitiv in (101b) hingegen ist obligatorisch inkohärent (s. z.B. Haider (1993)). Daraus ergibt sich der folgende Unterscheid:

(102) a.   da das neue Buch von Rizzi Hans Maria zu lesen empfohlen hat
      b.   *da das neue Buch von Rizzi Hans Maria zu lesen veranlaßt hat

In der kohärenten Konstruktion ist die Voranstellung des Infinitiv-Objekts vor das Matrix-Subjekt möglich, nicht aber in der inkoränten. Die kohärente Konstruktion verhält sich wie eine monosententiale Struktur. Aus diesem Grund ergibt sich die Möglichkeit, (101a) aus (102a) via 'stylistic fronting' abzuleiten. Eine entsprechende Option besteht für (101b) nicht. Da die Vorfeldphrase in (101b) nicht durch 'stylistic fronting' vorangestellt wurde, muß sie ein 'link' sein, d.h. sie verlangt eine Anbindung an den Diskurs. Diese ist im Kontext von (101) nicht gegeben, daher ist der Satz nicht angemessen.

Wenn der Kontext den Anforderung eins 'links' genügt, sind beide Sätze möglich:

(103)   Was ist mit dem neuen Buch von Rizzi?
      a.   Das neue Buch von Rizzi hat Hans Maria zu lesen empfohlen
      b.   Das neue Buch von Rizzi hat Hans Maria zu lesen veranlaßt

Der Unterschied zwischen (101a) und (101b) belegt somit den pragmatischen Unterschied zwischen der Vorfeldbesetzung durch ein Mittelfeldtopik mittels 'stylistic fronting' und einer Vorfeldbesetzung, welche an das 'link'-Merkmal des C-Kopfes gebunden ist.

Abschließend sollen die syntaktischen Eigenschaften, die in (94) aufgeführt sind, kurz kommentiert werden. Die Bemerkungen haben allerdings einen vorläufigen Charakter, da hier keine Theorie der Bewegungen entwickelt werden kann. Vergleichen wir zunächst Topik-Voranstellung und Vorfeldbesetzung. Im aktuellen Model der Chomsky-Grammatik (Chomsky (1999)) wird sukzessiv-zyklische Bewegung durch (defektive) Merkmale in den 'Zwischenpositionen' ermöglicht, welche zwar von der bewegten Phrase getilgt werden, welche aber die bewegte Phrase nicht lizenzieren. Der Unterschied bezüglich Lokalität in (94viii) wäre daher wie folgt zu erfassen. C kann mit einem uninterpretierbarem und defektivem Merkmal P_{link} ausgestattet sein, welches die sukzessiv-zyklische Bewegung einer Phrase mit dem 'link'-Merkmal ermöglicht. In seiner Zielposition wird das 'link'-Merkmal der bewegten Phrase durch ein 'link'-Merkmal des Kopfes lizenziert. Für das Satz-interne Topik sind keine entsprechenden Merkmale in C vorhanden. Ein 'aboutness'-Topik kann daher seinen Satz nicht verlassen. Wenn ein Satzinternes Topik im Vorfeld auftritt, dann nur via 'stylistic fronting'. 'Stylistic fronting' dient lediglich dazu, die Forderung nach lexikalischer Füllung von [Spec, CP] eines Verbzweit-Satzes zu erfüllen. Letzteres wird codiert durch ein 'EPP'-Merkmal [phonologisch], wodurch die lexikalische Füllung der Spec-Position erzwungen wird (s. Holmberg (2000)).[40]

Nach Rizzi (2000) induzieren TopPs weder für Phrasen mit einem anderen Merkmal noch für Phrasen, welche ebenfalls das Topik-Merkmal tragen, einen Minimalitätseffekt. Dies entspricht unseren Beobachtungen. Auf der anderen Seite verhindert jede Art von

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[40]   Die anderen C-Merkmale [wh], [fok], [link] oder P_{link} wären im System von Chomsky (1999) auch mit einem EPP-Merkmal zu assoziieren, das die Füllung der Spec-Position erzwingt.

Vorfeldbesetzung die zyklische Bewegung, da ein C-Kopf nicht mehr als ein EPP-Merkmal hat. Dies ergibt (94vii). Für (94vi) gibt es allerdings meines Wissens beim momentanen Stand der Bewegungstheorie keine Erklärung. Dies aber ist unabhängig von unserer Fragestellung. Es ist ein altes Problem für die Standardtheorie, daß beliebige Umstellungen im Mittelfeld zu keinem 'freezing'-Effekt führen. Die Opakheit der Vorfeldphrase hingegen ist einer der klassischen CED-Effekte.[41] Bezüglich der Eigenschaft (94v) ist zu bemerken, daß die Iterierbarkeit der Topik-Voranstellung der Annahme Rizzis in (95) entspricht, daß TopPs rekursiv sein können. CP ist nicht rekursiv im Deutschen, daher kann es keine mehrmalige Vorfeldbesetzung geben.

Betrachten wir schließlich die Eigenschaften (ii) und (iii). Bezüglich (ii) können wir nach den obigen Überlegungen feststellen, daß die für unsere Diskussion relevanten Vorfeldbesetzungen ebenfalls durch eindeutige Trigger ausgelöst werden. Dies ist zum einen das pragmatisch zu interpretierende 'link'-Merkmal, zum anderen das Merkmal [phonologisch], das durch 'stylistic fronting' oder mittels eines Expletivs erfüllt wird. Die Eigenschaft (iii) ist zum jetzigen Zeitpunkt schwer zu interpretieren, da nicht bekannt ist, warum Verb-nahe Dative und Genitive gegen Scrambling resistent sind. Um letzteres zu verstehen, müßte über die Funktion von Scrambling mehr bekannt sein. Aber es erscheint natürlich, daß sich Topik-Voranstellung und die Vorfeldbesetzung bezüglich (iii) gleich verhalten, da die Auszeichnung als 'aboutness'-Topik und die Auszeichnung als 'link' ('familiarity'-Topik) verwandte Eigenschaften betreffen.

Betrachten wir abschließend zwei Eigenschaften von (94) bezüglich Topik-Voranstellung und Scrambling. Unter (vi) wurde vermerkt, daß bei beiden Operationen die bewegte Phrase transparent ist für die Extraktion einer Subkonstituente. Oben wurde bereits erwähnt, daß es für die Standardtheorie ein Problem darstellt, daß Scrambling im deutschen Mittelfeld zu keinem 'freezing'-Effekt führt. Haider & Rosengren (1998) entwickeln daher eine Analyse von Scrambling, welche keine funktionalen Projektionen 'ansteuert'. Scrambling ist vielmehr eine Bewegung, die eine Phrase an die V-Projektionslinie adjungiert. Da sich die 'gescrambelte' Phrase nicht im Spec einer funktionalen Projektion befindet sondern in einer lexikalisch regierten Position, erwartet man keinen 'freezing'-Effekt.

Daß die *Topik-Voranstellung ebenfalls keinen 'freezing'-Effekt zeigt*, könnte als Evidenz dafür angesehen werden, daß der Topikbereich des Mittelfeldes nicht durch funktionale Top-Projektionen konstituiert wird. Die Topik-Voranstellung wäre ebenfalls Adjunktion an eine V-Projektion. Die Satzadverbiale würden ausschließlich für die Semantik/Pragmatik-Komponente das Mittelfeld in einen Topikbereich und einen Kommentar-Bereich aufteilen.

Die Erklärung der Tatsache, daß *im komplexen Vorfeld kein Topik auftreten kann* ((94iv)), wird in einem solchen Rahmen der Semantik/Pragmatik überlassen. Aber auch in einem solchen Ansatz müssen, um den Befund (94iii) zu erfassen, Phrasen mit pragmatisch zu interpretierenden Merkmalen ausgestattet sein. Denn die Scrambling-resistenten Phrasen dürfen nur bewegt werden, wenn sie topikal sind. Da die Zielpositionen von Topiks und Nicht-Topiks strukturell nicht unterschieden sind, muß zudem die Semantik/Pragmatik alle Strukturen aussondern, in denen die topikalen Phrasen keine zusammenhängende Domäne vor einem eventuell vorkommenden Satzadverbial und den nicht-topikalen Phrasen bilden. Damit erhalten wir jedoch eine unplausible Charakterisierung der Verhältnisse im Mittelfeld. Ein Merkmal [topik] ist zwar für den Input der syntaktischen Regel 'Mittelfeldumstellung' relevant. Für die Überprüfung der Wohlge-

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[41] Man beachte jedoch, daß die Beobachtungen (94vii) und (vi) bezüglich Vorfeldbewegung gegenstandslos sind, wenn man Reis (1997) folgt, s. Fn. 34.

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formtheit des Outputs spielt das Merkmal syntaktisch jedoch keine Rolle. Die Überprüfung des Outputs erfolgt vielmehr ausschließlich mittels eines semantisch/pragmatischen Filters. Insgesamt läßt sich somit festellen, daß für die Transparenz einer topikalen Phrase ((94vi)) zum jetzigen Zeitpunkt keine befriedigende Erklärung vorliegt.

Sowohl Topik-Voranstellung als auch Scrambling sind Satz-gebunden (Eigenschaft (94viii)). Wir haben unter 'Scrambling' jene Umstellungen verstanden, die sich unterhalb der Topikbereichs vollziehen. Nach (VIII) in Abschnitt 3 befindet sich direkt oberhalb der Topikbereichs die Zielposition einer nicht Satz-gebundenen Bewegung unter I-Kontur oder Kontrastfokus. Wir stoßen somit auf eine Peripherieeigenschaft der Topiks. Die Topik-Voranstellung positioniert Phrasen in die linke Peripherie jener Domäne des deutschen Satzes, die durch lokale Bewegungen charakterisiert ist.

Es wurde häufig beobachtet, daß in verschiedenen Sprachen die Tendenz besteht, Topiks linksperipher auszuzeichnen. Auf das Deutsche bezogen, wurde 'linksperipher' häufig so aufgefaßt, daß damit das Vorfeld gemeint ist. Dies ist nach unseren Beobachtungen für 'aboutness'-Topiks nicht richtig. Aber es ist richtig, daß die Topik-Auszeichnung auch im Deutschen linksperipher erfolgt. 'Aboutness'-Topiks werden linkssperipher in der Domäne lokaler Umstellungsoptionen ausgezeichnet. Die Auszeichnung eines 'links' hingegen erfolgt im Vorfeld, also in der linken Peripherie jener Domäne, die syntaktisch durch nicht-lokale Umstellungsoptionen charakterisiert ist.

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Satztopik und Diskurstopik in *Elaboration*-Kontexten

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Abstract

The paper starts with a semantic differentiation between the notions of sentence topic and discourse topic. *Sentence topic* is conceived of as part of a semantic predication in the sense of Y. Kim's work. *Discourse topic* is defined, as in N. Asher's *Segmented Discourse Representation Theory*, as a discourse constituent that comprises the content of (part of) the larger discourse.

The main body of the paper serves to investigate the intricate connection between the two types of topic. For restricting the context of investigation, a specific relation between discourse constituents, *Elaboration*, is chosen. If *Elaboration* holds between two discourse constituents, one of them can be identified as the explicit discourse topic with respect to the other one. Whereas an elaborating sentence – with or without a sentence topic - is used to infer a 'dimension' for extending the discourse topic, the role of the sentence topic if it occurs is to mark an 'index' for predication along that dimension. The interaction of elaborating sentences and their topics is modelled by means of channel theoretic devices.[1]

1. Kommentare als Prädikationen

Nach Auffassung vieler Autoren[2] liefern Topik und Kommentar, Subjekt und Prädikat, Fokus und Hintergrund, ebenso wie eventuelle weitere Dichotomien, Zerlegungen von Sätzen. Eine frühe Diskussion der beiden ersten Paare wird (unter einem strukturalistischen Blick) in Hocketts Buch von 1958 unternommen. Sätze werden dort prädikativen Konstruktionen zugeordnet. Für sie gilt:

(1)   The most general characteristic of predicative constructions is suggested by the terms 'topic' and 'comment' for their ICs: the speaker announces a topic and then says something about it. (Hockett 1958:201)

Diese Feststellung kann in Isolation den Eindruck vermitteln, dass Hockett die Zerlegungen 'Topik-Kommentar' und 'Subjekt-Prädikat' eigentlich nicht unterscheidet, besonders da (1) in einem ersten folgenden Beispiel durch den in *immediate constituents* (IC.s) zerlegten Satz in (2) illustriert wird:

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[2] Vgl. etwa Vallduví (1993) und die dort genannte Literatur.

können als bestimmte Prädikationen angesehen werden. In dieser Weise ließe sich die Hockett'sche Intuition des prädikativen Charakters von TK-Gliederungen explizieren.

Durch das Topik-Suffix können im Koreanischen auch andere Konstituenten ausgezeichnet werden, etwa Adverbialphrasen[4]. Damit ist für diese Sprache die TK-Gliederung von der Subjekt-Prädikat-Gliederung unabhängig.

Eine andere Form der Topik-Auszeichnung liefern nach Schachter (1975) philippinische Sprachen. In ihnen zeichnet jeder Satz eine Kombination aus Topik und einem Tiefenkasus (wie *actor, goal, direction, beneficient* u.a.) aus. Dabei ist *actor* ein Tiefenkasus, der in mancher Hinsicht dem Subjekt im Englischen entspricht (Schachter a.a.O. Kap. 4). Aber auch die Topik-Auszeichnung hat 'Subjekt-Eigenschaften' (Schachter a.a.O., Kap. 2) und kann daher als 'offen' gegenüber der Subjekt-Deutung bezeichnet werden. Umgekehrt könnte im Englischen und Deutschen die Subjekt-Auszeichnung als offen gegenüber der Topik-Deutung angesehen werden.

Subjekt-NPn wären damit im Deutschen Lieferanten für Satztopiks. Sie weisen aber das Problem auf, dass sie gegenüber einer Topik-Deutung lediglich offen sind, d.h. diese allein noch nicht verlangen. Nach der Auffassung von W. Frey (vgl. Frey (2000)) können jedoch Satztopiks im Deutschen in noch anderer Weise ausgezeichnet werden, nämlich durch ihre Position im Mittelfeld des Satzes vor Satzadverbien wie *vermutlich, leider, wahrscheinlich* etc. Zur Illustration vgl. die Positionen des durch den Fragekontext verlangten Satztopiks *Paul* in (5a-c); (hier und im folgenden wird die Analyse einer Konstituente als Satztopik durch Einschluss in [ ]$_T$ verdeutlicht).

(5)   Was weisst du Neues von Paul?

   (a)   Nächste Woche wird [Paul]$_T$ vermutlich in Norwegen vortragen.

   (b)   ?Nächste Woche wird vermutlich Paul in Norwegen vortragen.

   (c)   ??Nächste Woche wird [in Norwegen]$_T$ vermutlich Paul vortragen.

(5b) ist schlechter als (5a), noch schlechter ist (5c), in dem der angenommene Topik-slot durch einen Referenten besetzt ist, 'nach dem nicht gefragt ist'. (5c) ist dagegen in (6b) in Ordnung als Antwort auf eine Frage wie in (6a):

(6)   (a)   Und wer wird nächste Woche vortragen?

       (b)   Nächste Woche wird [in Norwegen]$_T$ vermutlich Paul vortragen.

(6b) präsentiert ein Satztopik, das nicht Subjekt ist, nicht einmal Argumentstatus hat. Die Frey'sche Annahme kann also auch für das Deutsche einen Unterschied zwischen der TK-Gliederung und der Subjekt-Prädikat-Gliederung sichtbar machen.

Der Frage, ob es weitere Mittel der Satztopik-Auszeichnung im Deutschen gibt, wird im weiteren nicht nachgegangen. Zur Untersuchung der semantisch-pragmatischen Funktion der beiden Teile der TK-Gliederung wird diese in einen textsemantischen Zusam-

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[4]   Ein Beispiel ist der semantische Kontrast zwischen den *for*-adverbials in (a) und (b), vgl. Kim (erscheint, p. 2):

   (a) John-i   samusil-ey   han sikan-tongan issul-kkeya
       John-NOM   office-LOC   one hour-for   be-FUT
       'John will be in his office for one hour.'
   (b) John-i   samusil-ey   han sikan-tongan-un   issul-kkeya
       John-NOM   office-LOC   one hour-for-TOP   be-FUT
       'For one hour (from now) John will be in his office.'

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(8) (a) An diesem Tag las [Ernst]$_T$ zum Glück noch einen Teil des Aufsatzes. (b) Wie gewöhnlich fing [er]$_T$ mit dem abschließenden Kapitel an. (c) Dann machte [er]$_T$ sich einen schönen Abend. (d) Als erstes legte [er]$_T$ eine CD auf.

(b) spezifiziert weiter die in (a) erwähnte Lektüre, (c) definiert dagegen ein anderes Ereignis, das der Lektüre folgt und das seinerseits durch (d) teilweise spezifiziert wird. Intuitiv spezifiziert (d) dagegen nicht (a); auch deswegen legt (c) ein neues Diskurstopik fest. Das beibehaltene Satztopik gibt zur Erklärung dieses Wechsels nichts her.

In (7) gibt es für die Sätze (a) und (b), oder vielmehr ihre Deutungen (bezeichnet mit ||a|| und ||b||), nur ein **implizites Diskurstopik**. Symbolisieren wir dieses mit IDT und die Relation 'ist Diskurstopik von' mit einem Pfeil lässt sich der thematische Zusammenhang in (7) repräsentieren wie in

(9)

IDT

||a|| ||b||
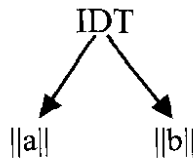
(8) erhält nach unserer Beschreibung eine Repräsentation wie in (10); danach ist ||a|| das Diskurstopik zu ||b|| und ||c|| das Diskurstopik zu ||d||. Auch (8) ist durch ein implizites Diskurstopik kohärent:

(10)

IDT

||a|| ||c||

||b|| ||d||
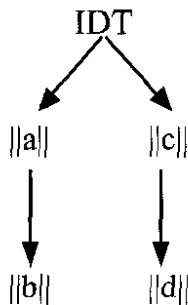
Der Intuition, dass in (8) zwischen (b) und (c) das Diskurstopik wechselt, wird in (10) dadurch entsprochen, dass ||b|| und ||c|| von verschiedenen Diskurstopiks direkt dominiert werden.

Durch eine Änderung des Textes (8) an der Stelle (d) können sich veränderte thematische Dominanzrelationen ergeben, vgl. (11); dort knüpft (d) nicht an (c) an, sondern an (a); die thematische Kohärenz dieses Textes ist dann zu repräsentieren wie in (12).

(11) (a) An diesem Tag las [Ernst]$_T$ zum Glück noch einen Teil des Aufsatzes. (b) Wie gewöhnlich fing [er]$_T$ mit dem abschließenden Kapitel an. (c) Dann machte [er]$_T$ sich einen schönen Abend. (d') Leider las [er]$_T$ die anderen Kapitel nicht mehr.

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(12)
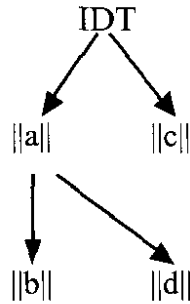
Die Pfeile in den Bäumen in (10) und (12) weisen unterschiedliche Mengen von Diskurstopiks aus, in (10) die Menge {||a||, ||c||, IDT}, in (12) die Menge {||a||, IDT}. Mit ||a|| und ||c|| verfügt (10) über zwei *explizite* Diskurstopiks, (12) nutzt dagegen ||a|| zweifach als explizites Diskurstopik. Dieser Unterschied lässt sich als Unterschied in der thematischen Kohärenz der Texte (8) und (11) auffassen, der durch einen Unterschied zwischen der satzinternen Information von (8d) und (11d) induziert wird. Für eine Darstellung der speziellen Relevanz der TK-Gliederung für die Textkohärenz bietet sich die *Segmented Discourse Representation Theory* (SDRT, vgl. Asher (1993)) an, in der systematisch der Einfluss von satzinterner Information auf die Steuerung von thematischer Kohärenz dargestellt werden kann. Im nächsten Abschnitt werden einige Konzepte der SDRT vorgestellt, die den Rahmen für die weitere Diskussion abgeben.

3. Diskursrelationen und *updating*

In SDRT werden die Deutungen der auftretenden Sätze ebenso wie auch implizite Diskurstopiks als Diskursrepräsentationen (DRS.en, vgl. Kamp (1981), Kamp/Reyle (1993)), d.h. propositionsartige Objekte[8] dargestellt. Diese Objekte heißen *Diskurskonstituenten*.

In Übereinstimmung mit der in (10) und (12) oben verwendeten Pfeil-Notation ist 'Diskurstopik' in SDRT ein relationaler Begriff: dass eine Diskurskonstituente α Diskurstopik zu einer anderen Diskurskonstituente β ist, wird damit angegeben, dass die Diskursrelation **Topic*(α,β) gilt. In SDRT ist die Standard-Annahme aufgegriffen, dass die Inhalte von Texten eine hierarchische Struktur bilden (vgl. z.B. das klassische Papier von Grosz/Sidner 1986). Eine ebenfalls aufgenommene Idee ist, dass zwischen Diskurskonstituenten sog. *rhetorische Relationen* wie *Contrast, Narration, Elaboration, Reason* etc. bestehen, die einen zusätzlichen Beitrag zur 'rhetorischen Kohärenz' von Texten leisten (vgl. Mann/Thompson (1987), Polanyi (1985), Hobbs (1985), Hobbs/Agar (1985)). Rhetorische Relationen sind gleichfalls Diskursrelationen.

Nach Asher (1993) interagieren **Topic, Elaboration* und *Narration* in spezifischer Weise: *Elaboration* besteht zwischen zwei Diskurskonstituenten α und β, wenn α ein explizites Diskurstopik von β ausmacht. So gilt in (8) *Elaboration*(||a||,||b||) und *Elaboration*(||c||,||d||). Besteht andererseits die Relation *Narration* zwischen α und β, wird ein *implizites* Diskurstopik gefordert. In (8) liegt beispielsweise diese Relation zwischen ||a|| und ||c|| vor, IDT ist das hier geforderte implizite Diskurstopik.

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[8] Zum semantischen Status von DRSen vgl. oben Fn. 5.

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Unter dem Gesichtspunkt der sukzessiven Konstruktion (*updating*) einer Textrepräsentation implizieren *Elaboration* und *Narration* die Beibehaltung bzw. die Neukonstruktion von Diskurstopiks. Kennzeichnend für das updating in SDRT sind insbesondere folgende Prinzipien: [9]

1. Der Inhalt eines neu verarbeiteten Satzes erhält die Rolle einer Diskurskonstituente, die, anders als in der klassischen DRT, 'segmentiert' bleibt, d.h. nicht mit dem Inhalt vorhergehender Sätze verschmolzen wird.
2. Bei der Anknüpfung einer jeden neuen Diskurskonstituente β wird die Spezifizierung einer Diskursrelation R gefordert.
3. Im vorhergehenden Text wird eine Diskurskonsituente α (*attachment site*) ausgewählt, an die β durch R angeknüpft wird und
4. β wird zu Zwecken der Kohärenz mit α ggf. um zusätzliche Information ϕ angereichert. Das heißt, durch Ausnutzung von Weltwissen wird eine angereicherte Konstituente β' inferiert.

In der skizzierten Repräsentation (10) des Textes in (8) oben ist immerhin Prinzip 1. beachtet; bei einem Ausbau zu einer vollständigen *Segmentierten Diskursrepräsentationsstruktur* (*SDRS*) wären die unspezifizierten Knoten IDT, ||a||, ||b|| etc. durch jeweils eine DRS zu ersetzen. Ab der Verarbeitung von (8b) wäre gemäß Prinzip 2. eine Diskursrelation zu spezifizieren (in diesem Fall *Elaboration*). Die Relevanz von Prinzip 3. wird durch den Unterschied zwischen der Verarbeitung von (8d) und (11d) illustriert: in (8) hat ||d|| als *attachment site* die Konstituente ||c||, in (11) dagegen hat ||d|| dafür die Konstituente ||a||.

Das vierte genannte Prinzip lässt sich am Text (8c,d) illustrieren:

(8) (c) Dann machte [er]$_T$ sich einen schönen Abend. (d) Als erstes legte [er]$_T$ eine CD auf.

Dass durch ||d|| die Konstituente ||c|| elaboriert wird, ist erst gegeben, wenn ||d|| als Bestandteil einer Art von Ereignis gedeutet wird, wie es in (c) mit der NP *ein schöner Abend* gekennzeichnet wird. In (8) ist ||c|| *attachment site* für die Anknüpfung von ||d|| durch die Relation *Elaboration*. Die Relevanz des Inhaltes von ||c|| wird deutlich in (13); dort kann ||b||, das gleichlautend mit ||d|| in (8) ist, nicht mit der gleichen Diskursrelation an ||a|| angeknüpft werden (sondern stattdessen mit *Narration*).[10]

(13) (a) Peter kam mit seinen Einkäufen nach Haus. (b) Als erstes legte [er]$_T$ eine CD auf.

Generell berücksichtigt SDRT die Tatsache, dass zur Etablierung von Diskursrelationen zwischen geeigneten α und β beim *updating* vier Sorten von Information ausgeschöpft werden:

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[9] Eine vereinfachte Version der Repräsentationserweiterung (*updating*) findet sich in Asher/Lascarides (1998), Abschnitt 4.

[10] (8d) und (13b) beziehen sich im Hinblick auf diesen Unterschied auf Information, die nicht durch *presupposition trigger* markiert ist. Diesem *bridging*-Phänomen tragen Asher/Lascarides (1998) in ihrer Definition des *updating* formal Rechnung.

- Satzinterne semantische Information,
- kontextuell festgelegte Information,
- Weltwissen im weiteren Sinn und
- pragmatische Regularitäten.

Hiervon steht für uns an satzinterner Information die TK-Gliederung im Vordergrund. Andere satzinterne Information wird dagegen auf weite Strecken nur als intuitives Kriterium gehandhabt, mit dem über das Vorliegen von z.B. *Elaboration* entschieden wird, oder mit dem semantische Bedingungen an einen so strukturierten Text diskutiert werden. Die gleiche Art des Umgangs gilt auch für kontextelle Information und Weltwissen. Dieses Vorgehen unterscheidet sich damit von dem in SDRT, wo die verschiedenen Sorten von beteiligter Information durch Axiome in einem Logik-Modul (DICE) gegeneinander verrechnet werden. Die Intention dort ist, durch die Definition von DICE die unterschiedliche beteiligte Information semantisch vergleichbar zu machen und ihre Interaktion darzustellen.

Eine solche Darstellung soll im vorliegenden Papier noch nicht geleistet werden. Das Ziel ist, in *Elaboration*-Texten Abhängigkeiten zwischen der TK-Gliederung von Sätzen und einem expliziten Diskurstopik zu untersuchen und ansatzweise eine Modellierung dafür vorzuschlagen. Deren Reformulierung als Axiome im DICE-Format soll bei einer anderen Gelegenheit diskutiert werden.

Im folgenden Abschnitt werden einige grundlegende Beziehungen zwischen Satztopik, Kommentar und dem Diskurstopik diskutiert. Als ein für das weitere Vorgehen *interessanter* Ausgangspunkt wird in Abschnitt 5 ein Ansatz von Y. Kim zur Deutung von Satztopiks vorgestellt. Abschnitt 6 hat die Aufgabe, relevante Beobachtungen zu *Elaboration*-Texten zusammenzustellen. In Abschnitt 7 werden ansatzweise *semantische Bedingungen* für die Verknüpfung einer aktualen Diskurskonstituente mit *Elaboration* modelliert und dabei das Auftreten von Satztopiks berücksichtigt.

4. Diskursrelationen und die Topik-Kommentar-Gliederung

Die Relation *Elaboration* macht explizit, wie in einem Text ein Diskurstopik durch einen weiteren Satz entfaltet wird. *Elaboration* liefert uns damit die Möglichkeit, die Beziehung von Satztopik und -kommentar zu (expliziten) Diskurstopiks zu kontrollieren. Sei im folgenden der Satz, der das Diskurstopik repräsentiert, *Kopfsatz* (K) genannt, die elaborierenden Sätze seien *E-Sätze* (E1, ...) genannt. Es geht im folgenden um *die Beziehung der TK-Gliederung von E-Sätzen zum Inhalt von (K)*.

Zunächst zeigt der kohärente Text in (14), dass eine Bezugnahme auf das Diskurstopik in (K) durch die E-Sätze ggf. nur 'mittelbar' durchgeführt wird. Die Aufgabe einer solchen Bezugnahme wäre besonders beim Satztopik zu suchen, dessen Funktion, 'aboutness' zu sichern, oft betont worden ist (Reinhart (1981, 1995), Vallduví (1993, 1994), Portner/Yabushita (1998)). In (14) ist jedoch kein Satztopik in den E-Sätzen mit dem Satztopik in (K) identisch oder hat auch nur die gleiche Referenz wie eine der expliziten Konstituenten von (K):

Dinner_I:
(14) (K)   Gestern wurde [Jörg]_T überraschenderweise wieder einmal zum Essen einge-
            laden.

       (E1) Als erstes hat [Maria]_T in weiser Voraussicht dem erschöpften Linguisten
             eine Hühnersuppe vorgesetzt.

       (E2) Dann hat [sie]_T aufmerksamerweise dem Einschlafenden einen Kaffee ge-
             bracht.

       (E3) Stolz trug [sie]_T als nächstes dem zu Kräften Gekommenen ein Lammragout
             auf.

       (E4) Zuletzt rundete [das Vanilleeis]_T wie gewohnt das Mahl ab.

Die Satztopiks in (E1-E4) können als Bestandteile eines in (K) erwähnten Ereignisses
(=dem Essen) inferiert werden, das selbst von dem von (K) beschriebenen Ereignis (=der
Einladung) verschieden ist. Dass das erwähnte Ereignis stattgefunden hat, geht in (14)
allerdings erst aus den E-Sätzen hervor, genauer aus Bestandteilen der E-Sätze, die zu
deren jeweiligem Satztopik komplementär sind. Die hier beobachtete Leistung der E-
Satz-Kommentare ist ein Anlass, ihrer Beziehung zum Diskurstopik gleichfalls Aufwerk-
samkeit zu widmen. Es ergeben sich drei Fragestellungen, plakativ dargestellt in (15):

1. die Beziehung zwischen (den Deutungen von) E-Satz-Topik und E-Satz-Kommentar.
2. die Beziehung (der Deutung) des E-Satz-Kommentars zum Diskurstopik
3. die Beziehung (der Deutung) eines E-Satz-Topiks zum Diskurstopik (d.h. der Deutung
   von (K))

(15)
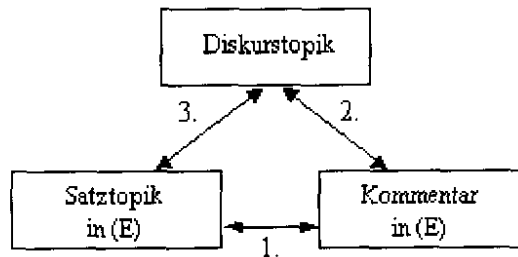
Eine Intuition zu zwei dieser Fragestellungen kann sich bei einem Blick auf die Texte in
(16) und (17) einstellen. In den E-Sätzen in (17) ist gegenüber denen in (16) jeweils eine
zusätzliche Konstituente aus dem Kommentar in die Satztopik-Position verschoben wor-
den, dabei ist das Diskurstopik (die Deutung von (K)) konstant gehalten:

Fest_I_A:
(16) (K)   Gestern gab Peter ein gelungenes Fest.

       (E1) Dieses Mal hatte [er]_T bemerkenswerterweise sein ganzes Geld für alkoholi-
             sche Getränke ausgegeben.

       (E2) Zu seiner Überraschung hatte [seine Freundin]_T tatsächlich ihr tollstes Kleid
             angezogen.

       (E3) Um ihn am Wegzug zu hindern, hatte [der Oberbürgermeister]_T völlig uner-
             wartet die Ehrenbürgerurkunde mitgebracht.

Fest_I_B:

(17) (K) Gestern gab Peter ein gelungenes Fest.

(E1) Dieses Mal hatter [er]$_T$ [sein ganzes Geld]$_T$ bemerkenswerterweise für alkoholische Getränke ausgegeben.

(E2) Zu seiner Überraschung hatte [seine Freundin]$_T$ [ihr tollstes Kleid]$_T$ tatsächlich angezogen.

(E3) Um ihn am Wegzug zu hindern, hatte [der Oberbürgermeister]$_T$ [die Ehrenbürgerurkunde]$_T$ völlig unerwartet mitgebracht.

zu Fragestellung 1.:

Ein einschlägiger Kontrast zwischen (16.E1) und (17.E1) besteht etwa in folgender Weise: der Unterschied bzgl. der Kommentare geht mit dem unterschiedlichen Skopus des Satzadverbs einher. Nach (16.E1) *schließt das Bemerkenswerte an Peters Verhalten auch die Verwendung der genannten maximalen Geldsumme ein*, in (17.E1) nicht. Dies kann man sich verdeutlichen, wenn die Bedingungen dafür reflektiert werden, dass die Verwendung des Satzadverbs in einem der beiden Sätze *nicht* angebracht ist. Für (16.E1) scheint dies der Fall, wenn Peter entweder ein Verschwender ist oder gerne trinkt, für (17.E1) nur im letzten Fall. D.h. die Deutung von *sein ganzes Geld* spielt *hier keine Rolle* für die Deutung des Kommentars im 2. Satz, dagegen für die des Kommentars in (16.E1). Ein Unterschied in Bezug auf die Satztopiks in beiden Sätzen kommt durch deren Interaktion mit dem Adverbial *dieses Mal* heraus. (17.E1) legt die Interpretation nahe, dass bei einer anderen Gelegenheit Peter kein Geld für alkoholische Getränke, vielmehr sein ganzes Geld für etwas anderes ausgegeben hat. Diese Interpretation wird durch (16.E1) nicht nahegelegt. Nur (17.E1) vermittelt den Effekt, dass es um eine Aussage zum Schicksal von Peters ganzem Geld bei verschiedenen Gelegenheiten geht.

zu Fragestellung 2.:

Hier ist eine kontextuelle Eigenschaft der Kommentardeutung angesprochen, da das mit (K) explizit vorliegende Diskurstopik involviert ist. Ein erster Eindruck ist, dass durch die Verschiebung der Konstituenten in (17.E1-E3) eine Veränderung der 'Aspekte' einhergeht, unter denen die Deutung von (K) elaboriert wird. Die Sätze in (17.E1-E3) sind für sich betrachtet *nicht* unakzeptabel, charakterisieren aber das in (K) erwähnte Fest in anderer Weise als 'gelungen' als (16.E1-E3). In (17) entsteht der Eindruck einer stärkeren Spezifik der Elaborierung, verbunden mit einer geringeren Kohärenz der E-Sätze. Die Spezifik der Elaborierung kann teilweise durch den zuvor für (17.E1) beschriebenen Effekt der Topik-Anreicherung erklärt werden: Die E-Satz-Kommentare in (17) beziehen sich auf Paare von Satztopik-Referenten; anscheinend ist für diese eine Sequenz von E-Sätzen schwerer kohärent zu machen als für singuläre Topik-Referenten.

zu Fragestellung 3.:

Hierzu seien die Textbeispiele (18) bis (22) betrachtet. In den E-Sätzen (18.E3) - (22.E3) sind die Satztopik-Referenten unterschiedlich verfügbar.

Foto_I_A:
(18) (K) Ich habe Anna, Klara und Paul gar nicht auf dem Foto erkannt.
      (E1) Anna hatte eine schwarze Sonnenbrille auf.
      (E2) Klara war durch ein Kopftuch nur halb zu sehen.
      (E3) Und da [der Otto]$_T$ leider den Paul halb verdeckte, habe ich den Paul gar
            nicht erkannt.

Foto_I_B:
(19) (E3) ?Und da [der Otto]$_T$ verblüffenderweise dem Paul sehr ähnelt, habe ich den
            Paul gar nicht erkannt.

Foto_I_C:
(20) (E3) ? [Otto]$_T$ ist ein Sohn von Paul. Otto habe ich für Paul gehalten.

Foto_I_D:
(21) (E3) Und da [der Paul]$_T$ verblüffenderweise dem Otto sehr ähnelt, habe ich den
            Paul gar nicht erkannt.

Foto_I_E:
(22) (E3) [Paul]$_T$ hat einen Sohn Otto. Otto habe ich für Paul gehalten.

(18.E3) und (19.E3) haben gemeinsam, dass ihre Satztopiks nicht in (K) erwähnt werden, unterscheiden sich aber in ihrer Akzeptabilität. Eine Vermutung hierzu ist, dass in (18.E3) der Satztopik-Referent Argument einer Relation VERDECKEN ist, deren Extension durch einen Bestandteil der Deutung von (K), d.h. das Foto, als definiert verstanden werden kann. In (19.E3) ist dagegen der Satztopik-Referent Argument der Relation ÄHNELN, deren Extension nicht als durch (K) definiert verstanden werden kann.

Aus dem gleichen Grund ist (20.E) schlecht: das Satztopik ist neu und Argument einer nicht durch (K) als definiert zu verstehenden Relation. Ist diese Analyse richtig, läuft sie darauf hinaus, dass in E-Sätzen solche Satztopiks nicht zugelassen sind, die nicht wenigstens durch *bridging* als ein Bestandteil des Diskurstopiks inferierbar sind.[11]

In (21.E3) und (22.E3) ist dieses Kriterium dadurch nivelliert, dass ihr Satztopik in (K) erwähnt ist, und somit nicht inferiert zu werden braucht.

Diese Beobachtungen können insgesamt zur Formulierung von Einschränkungen auf die Verfügbarkeit des Satztopik-Referenten genutzt werden. Sie geben aber noch keine Hinweise dafür her, welche Rolle die Satztopik-Referenten im Diskurstopik spielen.

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[11] Die genannten durch (K) definierten oder nicht definierten Relationen sind *Information, die der jeweilige E-Satz-Kommentar beisteuert.*

5. Kims Modellierung von Satztopik

Den Unterschied zwischen den in (4a) und (4b) ausgedrückten Propositionen stellt Kim mit situationssemantischen Mitteln dar.

(4) (a) tal-*i*   twungkul-ta.
          Mond-NOM   rund-DECL
          'Der Mond ist (heute nacht) voll.'

     (b) tal-*un*   twungkul-ta.
          Mond-TOP   rund-DECL
          'Der Mond ist rund.'

Kennzeichnend für ihre Modellierung des Kontrastes zwischen dem 'thetischen' Charakter von (4a) und dem 'kategorialen' von (4b) ist die Nutzung von vier Spezifizitäten der situationstheoretischen Ontologie. Folgende Spezifizität wird dabei jeweils folgende Nutzung erlauben:

a. Mit dem situationstheoretischen Propositionsbegriff, einer Klassifikation (vgl. Devlin (1991)), können 'unmittelbare Konstituenten' von Propositionen in variabler Weise ausgezeichnet werden: unmittelbare Konstituenten sind die Objekte, die jeweils klassifiziert werden, von Kim auch als *predication base* bezeichnet.
b. Als 'Austin'sche Propositionen' werden solche Propositionen bezeichnet, in denen eine Situation die unmittelbare Konstituente einer Klassifikation ist. Diese Struktur kann zu Deutung von thetischen Aussagen genutzt werden.
c. Situationen sind Objekte, die 'Information hergeben'. Wird eine Situation durch einen Typ τ klassifiziert, gilt eine konverse Relation: die Situation 'unterstützt' die von τ spezifizierte Information.
d. Der in Devlin (1991) eingeführte Situationstyp des *oracle* kann genutzt werden, um den Relevanz-Aspekt der TK-Gliederung zu modellieren.

Nach Kim ist (4a) eine Aussage über eine Situation, (4b) dagegen eine solche über ein Objekt (den Mond). Nach Spezifizität a. und b. kann in (4a) die mit der Satzäußerung intendierte Situation s als unmittelbare Konstituente der ausgedrückten Proposition aufgefasst werden; das heißt, dass es eine Eigenschaft von s ist, dass der Mond voll ist. Diese Deutung lässt sich repräsentieren wie in ((23); dort ist ':' zu lesen als 'ist vom Typ':

(23)   s : RUND(m)

Eine solche Proposition entspricht nach Kim einer 'thetischen' Deutung, da sie die Klassifikation einer Situation s behauptet. In diesem Fall ist s die 'unmittelbare Konstituente' (oder *predication base*) der Proposition. In (4b) ist dagegen das Objekt Mond als unmittelbare Konstituente der Deutung anzusetzen. Eine Repräsentation für (4b) hat die Struktur (24); dabei ist der Typ τ, nach dem m klassifiziert wird, weiter zu spezifizieren:

(24)   m : τ

Kims Vorschlag dazu ist, τ durch Abstraktion aus einer Proposition zu konstruieren, die die Relevanz der Klassifikation für das betr. Objekt (den Mond) sichert. In Devlin (1991)

wird ein Typ von Situationen definiert, der für ein gegebenes Objekt die vollständige faktische - jedoch nicht notwendigerweise bekannte - Information zu diesem Objekt enthält; für ein Objekt x wird eine solche Situation mit $oracle_x$ bezeichnet. Um anzugeben, dass es Teil der vollständigen faktischen Information zum Mond ist, dass er rund ist, läßt sich eine Proposition wie in (25a) angeben. Durch λ-Abstraktion lässt sich hieraus für den vorliegenden Zweck ein Typ wie (25b) definieren, intuitiv der Typ aller Dinge, für die gilt, dass ihr Rundsein Bestandteil der faktischen Information über sie ist. Eine semantische Entsprechung zu (4b) ist dann (25c), in dem behauptet wird, dass m von diesem Typ ist.

(25) (a) $oracle_x$: RUND(x)

  (b) $\lambda x\ [oracle_x$: RUND(x)$]$

  (c) m : $\lambda x[oracle_x$: RUND(x)$]$

Der Typ $\lambda x[oracle_x$: RUND(x)$]$ ist ein wesentlicher Teil des Kommentars von (4b); im Rahmen der TK-Gliederung von (4b) spezifiziert der Kommentar 'neue Information'. Die Klassifikation der $oracle_x$ -Situation durch RUND(x) liefert nun Kim eine Art Einschlägigkeit der neuen Information zu dem Objekt, das den Parameter x belegt. Damit dass in (25c) dem Objekt m die Eigenschaft zugeschrieben wird, dass 'sein' oracle die Information unterstützt, dass RUND(x) gilt, ist RUND(x) als Teil der faktischen Gesamtinformation zu m ausgezeichnet.

Interessant ist an dieser Lösung, dass es gerade die Deutung des Kommentars ist, die zum Satztopik etwas Relevantes beiträgt und damit 'für das Satztopik *aboutness* leistet'.

Es stellt sich allerdings die Frage, ob die für diese Konstruktion benötigte ausgezeichnete Situation allgemein mithilfe des *oracle*-Konzepts festgelegt werden sollte. Ein Kontext, in dem eine Äußerung von (4b) informativ ist, ist etwa eine Situation, in dem der Mond gerade nicht voll ist, d.h. nicht rund aussieht. Dann ist $oracle_m$ die ausgezeichnete Situation, die die eigentliche Gestalt des Objekts spezifiziert. Aber Relevanz des Kommentars muß nicht in einer Klassifikation durch das *Wahre-aber-nicht-Evidente* bestehen. Dass der Kommentar in dieser Hinsicht relevant ist, scheint eher kontextspezifisch bedingt. Akzeptiert man, dass Satzadverbien einen Teil des Kommentars ausmachen und dass sie die im Kommentar enthaltene ausgezeichnete Situation mitbestimmen, ist ihre semantische Vielfalt ein Argument dafür, dass eine Relevanz des Kommentars in variablerer Weise *möglich ist*.

Mit dem Satzadverb *eigentlich* kann etwa die in (4b) ausgedrückte Relevanz im Deutschen explizit gemacht werden, vgl. (26):

(26)   Der Mond ist eigentlich rund.

Zählt man nun mit Lang (1979) auch einen Operator wie *wahrscheinlich* zu den Satzadverbien, und schreibt man ihm mit Frey eine Satztopik-Auszeichnung zu, dann ist eine nicht notwendigerweise faktive Situation in Betracht zu ziehen.

(27)   Bei der Gelegenheit hat [Hans]$_T$ wahrscheinlich Maria geküsst.

Bei unmarkierter Intonation ist *Hans* hier Satztopik. Die dann durch *wahrscheinlich* ausgesonderte Situation (in der Hans Maria küsst) ist nicht notwendigerweise faktiv; damit

kann sie nicht ein Teil von *oracle$_{Hans}$* sein, denn für letzteres wird von Devlin verlangt, dass es *realisiert (d.h. Teil der aktualen Welt) ist.*

Es scheint daher sinnvoll, Kommentar-Relevanz in einer allgemeineren Weise zu modellieren. Diese sollte mit einem Beitrag von Satzadverbien verträglich sein, der nicht auf die *oracle*-Konstruktion eingeschränkt ist, sondern kontextueller Abhängigkeit Rechnung trägt. Unten wird diese dadurch dargestellt, dass als Relevanz stiftende Situation diejenige Situation fungiert, die das Diskurstopik unterstützt.

6. *Elaboration*-Kontexte

Zur Diskussion der Beziehung zwischen TK-Gliederung und Diskurstopik kehren wir zur Betrachtung von Texten zurück, die durch *Elaboration* strukturiert sind. Beispiele für solche Texte zeigten in Abschnitt 4., dass es Bezugnahmen von Satztopiks in E-Sätzen auf das Diskurstopik gibt, die aber 'mittelbar' sein können:

- Satztopiks in (E) wurden nicht notwendigerweise von Konstituenten von (K) geerbt, erst recht nicht notwendigerweise vom dortigen Satztopik (vgl. (14));
- die Rolle von Satztopiks in E-Satz-Sequenzen ist intuitiv an eine Folge von Aspekten geknüpft, in Bezug auf die das Diskurstopik elaboriert wird (16, 17);
- Satztopiks im E-Satz müssen als Bestandteil der Diskurstopik-Situation inferierbar sein (18-22).

Damit verfügen wir zunächst nur über eine unzusammenhängende Charakterisierung der Beziehung zwischen den beiden Topik-Sorten. In diesem Abschnitt sollen weitere Bedingungen für die Kohärenz von *Elaboration*-Texten formuliert werden. Ziel ist dabei, die Klasse von Verarbeitungskontexten einzuschränken, die die Wahl der Diskursrelation *Elaboration* legimieren und in denen die spezifische Funktion von Satztopik angegeben werden kann.

6.1. Topiklose E-Sätze

Zunächst ist festzustellen, dass die E-Sätze nicht notwendigerweise Satztopiks enthalten. Dies ist der Fall in (28):

```
Wetter_I:
```
(28) (K) Gestern war ein unbeschreibliches Wetter.
      (E1) Zuerst war es sehr heiß.
      (E2) Dann stürmte es.
      (E3) Schließlich fing es an zu schneien.

Satztopiks können nicht zur Erklärung der Intuition herangezogen werden, dass in (28) (E1) bis (E3) etwas zur Aussage von (K) beisteuern, diese sogar 'elaborieren'. Immerhin finden wir in (E1) bis (E3) 'kontrastierende Aspekte' auf die in (K) gemachte Aussage. Die Existenz dieser Aspekte wollen wir im folgenden im Begriff einer *Dimension* zusammenfassen, entlang der die Aussag in (K) elaboriert wird. Im Beispiel (28) erhält diese *Dimension* eine Struktur durch die von den Adverbien *zuerst, dann* und *schließlich*

angesprochene Zeitachse.[12] Es wird sich zeigen, dass mit dieser (für *Elaboration*-Texte grundlegenden) Struktur Satztopiks interagieren, wenn sie auftreten.

6.2. Dimensionen, Indizes und Positionen

Zur Diskussion dieses Zusammenhangs sei wieder von Texten ausgegangen, in denen (K) und E-Sätze über Satztopiks verfügen. Vgl. als erstes:

```
Schulwahl_I_A:
```
(29) (K)   Nach dem 6. Schuljahr suchen die Freunde von Meryem leider verschiedene Schulen auf.

     (E1) So wird Hamdi glücklicherweise aufs Gymnasium gehen.

     (E2) Dagegen geht Arkan vermutlich auf die Realschule.

     (E3) Trotz ihrer Begabung wird Songül leider die Hauptschule besuchen müssen.

In `Schulwahl_I_A` enthält (K) zwei Konstituenten mit pluralischen Referenten (*die Freunde von Meryem, verschiedene Schulen*), auf die sich die E-Sätze beziehen. Auf den pluralischen Referenten der zweiten Konstituente (*verschiedene Schulen*) wird in den E-Sätzen jeweils durch Erwähnung eines seiner Elemente Bezug genommen. Diese Bezugnahmen sind insofern deskriptiv vergleichbar, als auf die jeweilige Schule durch ihren Schultyp referiert wird. 'Schultypen' lässt sich hier als die Dimension auffassen, entlang der eine in (K) gemachte Aussage, nämlich dass verschiedene Schulen besucht werden, elaboriert wird. Die einzelnen Schultypen kann man mit *Positionen* auf der gegebenen Dimension identifizieren, Bündel von Eigenschaften, die sie vergleichbar und paarweise disjunkt machen. Die Funktion der ersten Konstituente (*die Freunde von Meryem*) kann dagegen als Bereitstellung einer Menge von *Indizes* gesehen werden. Mit dem Bezug auf einen Index durch das jeweilige Satztopik wird in den E-Sätzen in (29) ein jeweils verschiedener Aspekt auf das elaborierte Objekt artikuliert. In diesem Text kann die zugrundeliegende Dimension als Folge von Paaren aus einem Index und der zugehörigen Position aufgefasst werden.

Mit der Deutung von *die Freunde von Meryem* als 'indexstiftende' bzw. von *verschiedene Schulen* als 'positionsstiftende' Konstituente von (29.K) wird eine Asymmetrie behauptet. Kann in (29) nicht auch *verschiedene Schulen* als die indexstiftende Konstituente analysiert werden? Dann würden durch die Eigennamen *Hamdi* etc. nunmehr Positionen auf einer von den E-Sätzen etablierten Dimension angegeben. Eine solche Lesart der E-Sätze von (29) sollte damit verträglich sein, dass entsprechend die Schultypen als gegebene Information, die jeweiligen Schüler als neue Information präsentiert. Dies läßt sich dadurch erreichen, dass in (K) auf die Schultypen aus einer Satztopik-Position Bezug genommen wird, konstruierbar durch eine Passivierung, vgl.

(30)   Nach dem 6. Schuljahr werden verschiedene Schulen wahrscheinlich von den Freunden von Meryem aufgesucht.

Die Satztopik-Position ist hier durch das Satzadverb *wahrscheinlich* markiert. Für die intendierte Verwendung als K-Satz passen wir die auf die Schultypen referierende Kon-

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[12] Das gleiche gilt für das Beispiel in (14), `Dinner_I`. Die 'Fest-Beispiele' (16, 17) verlangen die Konstruktion einer abtrakteren Dimension, etwa 'betriebener Aufwand', vgl. *unten Abschnitt ...Die Dimension in den 'Foto-Beispielen' ist auf den beteiligten Personen definiert.

stituente noch in einer weiteren Hinsicht an: wir machen sie definit wie in (31.K), da eine indefinite Version wie in (30) nicht die distributive Lesart haben kann.

Schulwahl_I_B:
(31) (K) Nach dem 6. Schuljahr werden die verschiedenen Schulen wahrscheinlich von den Freunden von Meryem aufgesucht.
    (E1) So wird Hamdi glücklicherweise aufs Gymnasium gehen.
    (E2) *Dagegen geht Arkan vermutlich auf die Realschule.*
    (E3) Trotz ihrer Begabung wird Songül leider die Hauptschule besuchen müssen.

Es zeigt sich, dass die resultierende Abfolge von (31.K) und (31.E1-E3) jedoch nicht gut ist. Intuitiv gibt es einen 'Sprung' zwischen (31.K) und (31.E1), der sich als Wechsel zwischen den *intendierten* Rollen von Schultypen (in (K): Indizes) und Schülern (in (K): Positionen) erklären lässt. In dieser Hinsicht in Ordnung scheint dagegen der Text in (32), in dem in den Satztopik-Positionen der E-Sätze sich solche Ausdrücke befinden, die auf die intendierten Indizes (die Schultypen) Bezug nehmen.

Schulwahl_I_C:
(32) (K') Nach dem 6. Schuljahr werden die verschiedenen Schulen wahrscheinlich von den Freunden von Meryem *aufgesucht.*
    (E1) So wird aufs Gymnasium glücklicherweise Hamdi gehen.
    (E2) Dagegen geht auf die Realschule vermutlich Arkan.
    (E3) Trotz ihrer Begabung wird die Hauptschule leider Songül besuchen müssen.

Die Diskussion der Beispiele (29), (31) und (32) legt nahe, in E-Sätzen die Deutung der Satztopiks als Artikulation von Indizes und die Deutung von Kommentaren als Differenzierung von Positionen aufzufassen. Diese Beispiele sind nun in einer Reihe von Hinsichten idealisiert, die unten diskutiert werden sollen. Wie sie stehen, lässt sich an ihnen aber eine generllere Entsprechung zwischen K- und E-Sätzen behaupten. die darin besteht, dass durch die TK-Gliederung der E-Sätze auf eine Prädikation in (K) Bezug genommen wird. Was in (29.K) für Mengen von Schülern behauptet wird, wird in den nachfolgenden E-Sätzen für einzelne Schüler spezifiziert. Deutet man (wie Kim) die TK-Gliederung der E-Sätze selbst als eine Prädikation, läuft das darauf hinaus, dass in (29) und (32) das Bestehen von *Elaboration* zwischen (K) und den E-Sätzen als eine Relation zwischen Prädikationen erkärt werden kann. Dass (31) weniger kohärent ist, kann auf das Nicht-Vorliegen dieser Relation zurückgeführt werden.

    Diese Annahme lässt sich auch durch Beobachtungen zu Texten stützen, in denen explizite Indizes fehlen. In bestimmten Fällen können spezifische E-Sätze spezifische Prädikationen in (K) verlangen, vgl. die beiden folgenden Texte:

Wetter_II:
(33) (K) *Es regnete.*
    (E1) Viele kleine Tropfen wirbelten herab.
    (E2) Auch die wetterabgewandten Seiten der Baumstämme *wurden nass.*

Wetter_III:
(34) (K) Es regnete anders als sonst.
    (E1) Viele kleine Tropfen wirbelten herab.
    (E2) Auch die wetterabgewandten Seiten der Baumstämme wurden nass.

In Wetter_II liefern die Sätze (E1) und (E2) Diskurskonstituenten, für die die Diskursrelation *Cause* besteht. Zu der hieraus zu konstruierenden komplexen Konstituente hat die Deutung von (K) eher die Relation *Background*. In Wetter_III wird dagegen in (K) die VP durch ein *manner*-Adverb modifiziert. In diesem Fall scheint eine Anknüpfung mit *Elaboration* möglich.

Die Idee einer Relation zwischen Prädikationen werden wir unten zur Modellierung der Diskursrelation *Elaboration* und ihrer Interaktion mit Satztopiks verwenden. Ein Beispiel wie (28) zeigt jedoch, dass in E-Sätzen nicht notwendigerweise Indizes in Form von Satztopiks vorkommen müssen. In den folgenden Abschnitten werden Typen von Elaborationstexten vorgestellt, die von den Beispielen (29) und (32) in verschiedener Hinsicht abweichen.

6.3. Inferierte Positionen

Das oben bereits angeführte Beispiel Fest_I_A weist eine Dimension auf, für die es in (K) keine index- oder positionsstiftende Konstituente gibt. Was die Positionen sind, ist aus der Art und Weise zu inferieren, in der die Kommentare der E-Sätze vergleichbar sind; Rahmen für die Elaboration ist nicht die gesamte Deutung von (K), sondern der Referent der NP *ein gelungenes Fest*.

Fest_I_A:
(16) (K)   Gestern gab Peter ein gelungenes Fest.
     (E1) Dieses Mal hatte [er]$_T$ bemerkenswerterweise sein ganzes Geld für alkoholische Getränke ausgegeben.
     (E2) Zu seiner Überraschung hatte [seine Freundin]$_T$ tatsächlich ihr tollstes Kleid angezogen.
     (E3) Um ihn am Wegzug zu hindern, hatte [der Oberbürgermeister]$_T$ völlig unerwartet die Ehrenbürgerurkunde mitgebracht.

Als Dimension ist etwa inferierbar "Art von Aufwand für das Fest". Als Positionen können hier idealisierte Konzepte angesetzt werden, etwa: 'Getränke', 'Kleidung' und 'Sozial relevante Ereignisse', für die eine Kontrastbeziehung besteht.

Zu beobachten ist, dass die Polarität der Prädikation in (16.K), nämlich dass es sich um ein 'gelungenes' Fest handelt, geändert werden kann, bei Annahme einer symmetrischen Dimension (und bei entsprechender Modifikation der E-Sätze):

Fest II:
(35) (K)   Gestern gab Peter ein misslungenes Fest.
     (E1) Dieses Mal hatte er geizigerweise nur wenig Geld für die Getränke ausgegeben.
     (E2) Zu seinem Verdruss hatte seine Freundin leider ihr unvorteilhaftestes Kleid angezogen.
     (E3) Ärgerlicherweise brachte eine Polizeistreife völlig unerwartet Knöllchen an den Autos mehrerer Gäste an.

Auch zu inferierende Dimensionen sind nicht auf die Benutzung von Indizes in Satztopik-Position angewiesen, vgl.:

Fest III:

(36) (K) Gestern gab Peter ein gelungenes Fest.

(E1) *Glücklicherweise hatte er genug Getränke besorgt.*

(E2) Tatsächlich hatte seine Freundin ihr tollstes Kleid angezogen.

(E3) Völlig unerwartet brachte der Oberbürgermeister die Ehrenbürgerurkunde mit.

6.4. Nicht-konstrastierende Positionen

In einem *Elaborationstext* wie (37) besteht Kontrast zwischen den E-Sätzen nur hinsichtlich ihrer Subjekte, für die ein Satztopik-Status angenommen werden kann. Die E-Satz-Kommentare spezifizieren keine kontrastierenden Positionen.

Gestirne:

(37) (K) Die Gestirne habe alle die gleiche Gestalt.

(E1) Der Mond ist rund.

(E2) *Die Erde ist ebenfalls rund.*

(E3) Auch die Sonne ist rund.

6.5. Keine disjunkten Teilobjekte

In (38) macht (K) kein Objekt explizit, das *für die E-Sätze einzeln spezifizierbare TeilObjekte liefert.* Kontrast wird dort nur durch die Prädikate erzeugt.

Wetter_1:

(38) (K) Es war gutes Wetter.

(E1) Es war nicht zu kalt.

(E2) Und es war nicht zu trocken.

6.6. Gemischter Kontrast

In (39) spezifiziert nur einer von zwei E-Sätzen, (E2), ein explizites Objekt, über das prädiziert wird. (E1) nennt dagegen ein 0-stelliges Prädikat:

LL-Wetter:

(39) (K) Es war gutes Langlaufwetter.

(E1) Es regnete nicht.

(E2) *Die Loipe war nicht vereist.*

Vergleichbarkeit der Dimensionspositionen kann hier auf zwei Wegen erfolgen: entweder werden Wettereigenschaften verglichen; dann ist aus (E2) zu inferieren, dass es nicht zu kalt war. Oder eine Vergleichbarkeit hinsichtlich Umgebungsbestandteilen wird konstruiert; dann werden Luft und Boden verglichen.

6.7. Intentionalität von Dimensionen

Ein weiterer Aspekt der Dimensionskonstruktion ist, dass ein gegebener K-Satz mehrere Dimensionen zulässt. In Schulwahl_II kann die Dimension beschrieben werden als "Ort der Schule (im Hinblick auf die Wohnung)". Dass es weitere Möglichkeiten gibt,

kann durch ein Beispiel wie Schulwahl_III belegt werden, in dem es um architekto-
nische Kontraste geht.

Schulwahl II:
(40) (K) Nach dem 6.Schuljahr gehen die Freunde von Meryem auf verschiedene
Schulen:
(E1) So wird Hamdi auf ein Gymnasium in seinem Stadtbezirk gehen.
(E2) Arkan geht vermutlich auf das Türkische Gymnasium im angrenzenden Be-
zirk.
(E3) Trotz seiner Entfernung wird Songül das Naturwissenschaftliche Gymnasium
besuchen.

Schulwahl III:
(41) (K) Nach dem 6.Schuljahr gehen die Freunde von Meryem bedauerlicherweise
auf verschiedene Schulen:
(E1) So wird Hamdi glücklicherweise auf eine Schule gehen, die kürzlich im
Rahmen eines Architekturwettbewerbs gebaut wurde.
(E2) Dagegen geht Arkan vermutlich auf ein Gymnasium, das in einem Nach-
kriegsneubau untergebracht ist..
(E3) Trotz ihres Asthmas wird Songül leider in einem klimatisch bedenklichen
Altbau bleiben müssen.

6.8. Andere Dimensionsauszeichnungen

Mit dem Dimensionsbegriff kann auch eine andere Form der Auszeichnung von topikaler
Information in Zusammenhang gebracht werden. Diese besteht in der Kennzeichnung von
Indizes durch *als*-Phrasen, vgl.:

Dinner_II:
(42) (K) Gestern wurde Jörg überraschenderweise zum Essen eingeladen.
(E1) Als Vorspeise hat Maria dem erschöpften Linguisten eine Hühnersuppe vor-
gesetzt.
(E2) Als Hauptgang trug sie dem zu Kräften Gekommenen ein Lammragout auf.

6.9. Nur ein E-Satz

Bei der Verarbeitung von *Elaboration*-Texten tritt regelmäßig die Situation auf, dass für
einen Satz dessen Status als erster E-Satz zu bestimmen ist. D.h. es ist im gegebenen Fall
für einen Satz wie (E1) in (43) festzustellen, dass seine Deutung zu der von (43.K) in der
Relation *Elaboration* steht. Kontraststiftende weitere E-Sätze sind, selbst wenn vorhan-
den, dann noch nicht verarbeitet und sind deshalb semantisch nicht nutzbar.

Wetter_2:
(43) (K) Es regnete.
(E1) Es fielen ungewöhnlich dicke Tropfen.

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7. Modellierung

Begriffe wie 'Dimension' und 'Index' sollen nun dadurch präzisiert werden, dass die Bedingungen für das Vorliegen von *Elaboration* in Bezug auf einige beispielübergreifende Phänomene modelliert werden.
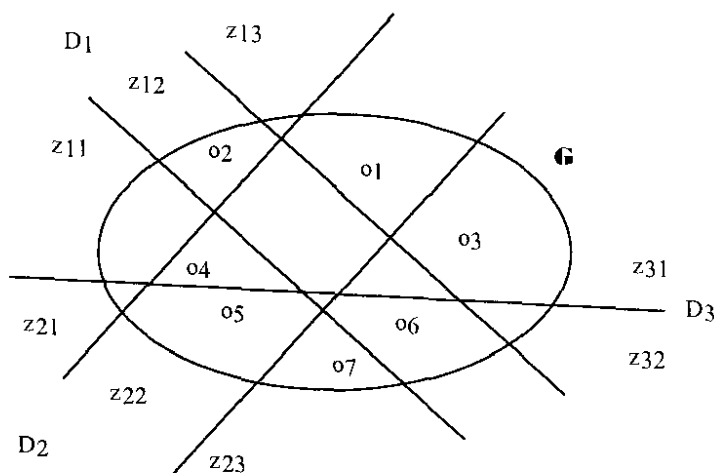
7.1. Dimensionen in Feldern

Die Variation der Dimensionswahl wie in den 'Schulwahl'-Beispielen ist im konkreten Fall sicher durch die Notwendigkeit bedingt, eine Klassifikation nach einem kontextuell bedingten Gesichtspunkt vorzunehmen. In der Semantik ist an einer anderen Stelle die Variation von Klassifikationen diskutiert worden, und zwar in Ansätzen zur Wortfeldanalyse, vgl. Lutzeier (1981). Es geht dort um die Feststellung semantischer Kontraste zwischen Lexemen, die in einem gegebenen verbalen Kontext (einem semantisch eingeschränkten Paradigma) auftreten können; ein Beispiel folgt weiter unten. Die Festlegung solcher Kontraste kann - außer der Berücksichtigung von sog. *semantischen Relationen* zwischen Lexemen (*Hyponymie, Hyperonymie, Antonymie* etc.) - die semantische Klassifikation von Lexemen nach deskriptiven Kriterien erfordern.

Die Klassifikationen werden entlang von *Dimensionen* vorgenommen. Eine Dimension definiert die Zerlegung einer Menge von Objekten (im Falle der Wortfelder von Lexemen). Zur Individuierung der Elemente einer gegebenen Menge können mehrere Dimensionen erforderlich sein, und ihre Verwendung kann nach operativen Gesichtspunkten erfolgen (Lutzeier 1981).

Eine schematische Darstellung dieses Vorgehens ist in (44) skizziert. Bei einer Menge von Objekten $G = \{o_1, o_2, ...,o_7\}$ ist eine mögliche Lösung der Aufgabe, jedes Element von G von jedem anderen deskriptiv zu unterscheiden, die Verwendung von 3 Dimensionen D1, D2 und D3. Jede von ihnen zerlegt G in sog. *Zerlegungsmengen*. In (44) zerlegt z.B. die Dimension D1 die Menge G in Zerlegungsmengen mit den Namen z_{11}, z_{12} und z_{13}:

(44)

Der Sinn von Zerlegungen von Wortfeldern nach Dimensionen lässt sich an zwei konkreten Beispielen belegen:

1. Verwandtschaftsbezeichnungen: In Lutzeier (1981) findet sich eine Analyse der Verwandtschaftsbezeichnungen im Deutschen. Aus einem angenommenen 'verbalen Kontext' *Y kann ich zu meiner Verwandtschaft zählen*, der Festlegung einer syntaktischen Kategorie Substantiv und eines 'semantischen Aspektes' *Generelle Verwandtschaftsbezeichnung bezüglich Ego* ergibt sich eine Menge von Lexemen G = {*ururgroßvater, ururgroßmutter, ..., urenkelin*} mit mehr als vierzig Elementen (vgl. p. 160). Diese werden mit nur drei Dimensionen individuiert, die allerdings z.T. intern reich strukturiert sind. Dies gilt besonders für die erste verwendete Dimension, "Abstand in Generationen zu Ego", die u.a. die folgenden Zerlegungsmengen mit ihren Namen spezifiziert:

(45) ...

$$Z_{1-2} = \{enkel, enkelin\} \text{ mit } N_{1-2} = \underline{\text{Zwei Generationen nach Ego}}$$

...

$$Z_{10} = \{bruder, schwester, geschwister, ..., stiefschwester\} \text{ mit } N_{10} = \underline{\text{Gleiche Generation wie Ego}}$$

$$Z_{11} = \{vater, mutter, ..., schwiegereltern\} \text{ mit } N_{11} = \underline{\text{Eine Generationen vor Ego}}$$

...

Die beiden anderen Dimensionen klassifizieren die Lexeme in G nach 'Geschlechtszugehörigkeit' und nach 'Familienzugehörigkeit durch Heirat'. Eine Komplexität ist bei der letzten Dimension, dass Zugehörigkeit durch Heirat generationsmäßig differenziert werden muss, vgl. den Kontrast zwischen *schwiegersohn* und *stiefbruder* (Lutzeier 1981:162).

Bemerkenswert an diesem Wortfeld erscheint zum einen die Effizienz der Dimensionen. Sie reichen beim vorliegenden Beispiel für die Individuierung der Lexeme aus, semantische Relationen spielen nach Lutzeiers Analyse keine Rolle. Die benutzten Kriterien dürften bei diesem Wortfeld lexikalisiert sein.

Ein zweiter Punkt ist, dass Dimensionen relativ komplex definiert sein können, wie für die 3. Dimension angedeutet. Mit der Bereitstellung von 'Namen für die Zerlegungsmengen', vgl. N_{1-2} etc. in (45) wird in dem Ansatz ein möglicher sprachlicher Zugriff auf Bestandteile von Klassifikationen vorgestellt. Dieser Gedanke soll unten (Abschnitt 7.6) genutzt werden.

2. Bezeichnungen für Speisen. Allgemein liefern Bezeichnungen für Artefakte Wortfelder, die sinnvoll durch Dimensionen individuiert werden.[13] An Bezeichnungen für Speisen läßt sich zeigen, dass die Einschlägigkeit von Klassifikationen kontextuell stark variieren kann. Die Klassifikation von Speisen nach bestimmten Ingredienzien, Zubereitungsweisen, Anbindungen an institutionalisierte Gelegenheiten (Feste) etc. kann je nach Gelegenheit relevant oder irrelevant sein. Eine spezielle Klasse von Kontexten ist z.B. mit der Bezeichnung 'Diät' verbunden; in einem solchen Kontext wird ein angenommener physischer Zustand eines Individuums mit einer Klassifikation von Speisen nach ihrer Zuträglichkeit korreliert. Weitere Faktoren wie Konstitution des Individuums oder Ressourcen an Zutaten können zu einer (diätbezogenen) *temporären Klassifikation,* etwa in einer Liste von vorgeschlagenen Speisen, führen. Maßgeblich ist dann eine Dimension mit Zerlegungsmengen, die mit Bezeichnungen wie *zuträglich, noch erlaubt, schädlich,* ... gekennzeichnet werden können.

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[13] Vgl. Lutzeiers Beispiel 'Bezeichnungen für Turngeräte', a.a.O. Kap. 5.1.1.

Dimensionen, wie sie bei Lutzeier modelliert sind, nämlich als Indexmengen für Zerlegungen von Mengen, scheinen geeignet, zur Explikation des bisher lose verwendeten Dimensionsbegriff beizutragen. Attraktiv an dieser Definition ist die Tatsache, dass die durch jeweilige Zerlegung entstandenen Mengen

- nach kontrastierender deskriptiver Information unterschieden werden,
- mit sprachlichen Mitteln gekennzeichnet werden können und
- einen kontextabhängigen ('temporären') Status haben.

Aus dem in der Wortfeld-Definition[14] angelegten sprachlichen Zugriff auf die Zerlegungsmengen können wir eine Deutung von rahmensetzenden Adjunkten wie im Text `Dinner_II` ableiten; die Adjunkte *als Vorspeise* und *als Hauptgang* können als Kennzeichnung von Positionen auf der Dimension interpretiert werden, nach der die E-Sätze den K-Satz elaborieren.

`Dinner II`:

(42) (K) Gestern wurde Jörg überraschenderweise zum Essen eingeladen.

    (E1) Als Vorspeise hat Maria dem erschöpften Linguisten eine Hühnersuppe vorgesetzt.

    (E2) Als Hauptgang trug sie dem zu Kräften Gekommenen ein Lammragout auf.

Andere topikale Information wird durch die Satztopiks selbst gegeben. Durch sie wird nicht eine Position im eigentlichen Sinn gekennzeichnet. Die Auszeichnung kontrastierender Positionen einer Dimension wurde oben als Leistung der Kommentar-Deutungen beschrieben. Satztopiks lieferten dafür 'Indizes'. Beispiele wie (28) (`Wetter_I`) zeigten allerdings, dass Dimensionen, die für die Kohärenz von E-Satz-Sequenzen sorgen, nicht auf das Vorkommen von Satztopiks angewiesen sind. Es reicht ggf. Kommentar-Information, um die temporäre Klassifikation zu etablieren.

7.2. Channels

Die Modellierungsidee, der wir nun folgen wollen, berücksichtigt den inferierten Status der jeweiligen Dimension. Sie berücksichtigt ferner die Tatsache, dass die durch eine Dimension strukturierte Klassifikation temporär ist. (Dies ist gerade deswegen der Fall, weil sie auf Propositionen basiert, d.h. auf semantischen Objekten, die durch sprachliche Komposition beliebig komplex gemacht werden können.) Die temporären Klassifikationen beruhen auf (durch E-Sätze gemachte) Aussagen zu einem Bestandteil eines spezifischen Diskurstopiks. Sie definieren einen spezifischen Informationsfluss zwischen den Inhalten der E-Sätze und einem relevanten Bestandteil des Diskurstopiks.

    Die zentrale Aufgabe, die bei der Verarbeitung eines E-Satzes zu leisten ist, kann nun so interpretiert werden: die von einem 'putativen E-Satz' ausgedrückte Proposition ist daraufhin zu prüfen, ob sie ein Teil einer temporären Klassifikation (Dimension) ist, der sich auf einen relevanten Bestandteil von $\|K\|$ bezieht.

    Zur Darstellung dieser Aufgabe lässt sich die von Barwise und Seligman entwickelte *Channel Theory* verwenden. Sie berücksichtigt zwei Aspekte, unter denen temporäre Klassifikationen *partial* sind: sie gelten normalerweise für einen eingeschränkten Bereich von Objekten (Tokens) und sie klassifizieren diese Objekte nach einer eingeschränkten

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[14] Diese wird hier nicht präzisiert; vgl. dazu Lutzeier (1981), Kap. 4.7.

Menge von Typen. Ein Ausgangsbegriff ist der einer *Klassifikation*. Diese wird definiert wie folgt:[15]

(46)   **Definition** *A classification A is a structure <tok(A), typ(A), :$_A$> consisting of a set of tokens tok(A), a set of types typ(A) and a relation :$_A$ on tok(A) × typ(A). For t ∈ tok(A) and φ ∈ typ(A), we say t is classified by φ in A, if t :$_A$ φ holds.*

Eine Klassifikation A kann durch die Auswahl der Elemente von tok(A) und typ(A) sehr spezifisch konstruiert werden. (Im Zusammenhang mit den obigen Wortfeldbeispielen würde einen nichts daran hindern, die Menge von Typen typ(A) nach Dimensionen zu strukturieren.)

Ein *Channel* stellt eine Verbindung zwischen zwei Klassifikationen A und B her; seine Aufgabe ist, den Informationsfluss zwischen A und B zu spezifizieren. Ein Channel wird formal selbst als eine Klassifikation definiert; seine Token sind sog. *connections*,[16] Paare von einem Token aus A und einem Token aus B.[17]

(47)   **Definition** *Let A and B be classifications. A channel C : A ⇒ B linking A and B is a classification <tok(C), typ(C), :>. The tokens of C are connections, denoted s ↦ s', with s ∈ tok(A) and s' ∈ tok(B). The types of C are constraints, denoted φ → ψ, with φ ∈ typ(A) and ψ ∈ typ(B).*

Wird in einem Channel C ein Token s ↦ s' durch einen constraint φ → ψ klassifiziert (notiert wie in (48)),

(48)   s ↦ s' : φ → ψ

heisst das, dass die Tatsache, dass s : φ die Information trägt, dass s' : ψ. Nützlich ist auch eine 2-dimensionale Darstellung dieser Aussage, in der die beiden Ebenen von Tokens und Types deutlich werden, vgl.

(49)   φ → ψ
        :
        s ↦ s'

Cavedon/Glasbey (1994) nutzen Channels, um generische Sätze zu interpretieren. Ohne auf ihre Argumentation genauer einzugehen, seien für ihre Wahl von Channels als Schemata zur Deutung solcher Sätze zwei Punkte angeführt:

---

[15] Ich entnehme diese Definition und die in (47) dem Papier von Cavedon/Glasbey (1994), vgl. dort p. 9.

[16] Cavedon/Glasbey (1994) machen auf eine Vereinfachung aufmerksam, die sie mit dieser Charakterisierung der Token eines *channels* vornehmen, vgl. ihre Fn. 11.

[17] Spezifische Connections sind aus der Situationssemantik bekannt; die Verwendung eines Eigennamens in einer Äußerungssituation (ein Eigennamen-Token) und sein Referent, ein Objekt in einer beschriebenen Situation, wurden als durch eine connection verbunden dargestellt. Damit sollte ein Zugriff auf Eigennamen-Referenten modelliert werden, der ohne Benutzung von dessen möglichen Eigenschaften auskam. Vgl. Barwise/Perry (1983), Gawron/Peters (1990).

- Generische Aussagen könnte implizite kontextuelle Einschränkungen enthalten.
- Generische Aussagen können als Artikulation eines constraints auf der Typen-Ebene gedeutet werden, sind dagegen implizit in Bezug auf die Objekte (Token), für die der constraint gilt.

Der erste Punkt wird dadurch illustriert, dass (50.a) und (50.b) beide als gleichzeitig wahr angenommen werden können:

(50) (a) Peacocks lay eggs.
      (b) Peacocks have brightly coloured tail-feathers.

Beide generischen Aussagen gelten für verschiedene Typen von Tieren, (a) nur für die Weibchen, (b) nur für die Männchen. Der zweite Punkte ist damit plausibel gemacht, dass generische Aussagen sich dadurch auszeichnen, dass sie Ausnahmen implizit lassen; (50.a) ist z.B. implizit in Bezug auf zu junge (weibliche) Exemplare.

Die Deutung einer Aussage wie (50.a) involviert nach Cavedon/Glasbey einen expliziteren Channel C', der den constraint PEACOCK&FEMALE → LAY_EGGS enthält. Bei diesem Channel sind die connections von der Form t ↦ t, d.h. sie bilden ein Token t auf es selbst ab. Die Nichtberücksichtigung von Ausnahmen kann durch die Annahme eines 'normality constraints' für den Channel beschrieben werden.

Channels als Interpretionsschemata sind auch für die Deutung von E-Satz-Sequenzen interessant. Das Auftreten von Satztopiks stellt dabei eine Komplexität dar, die mit *Elaboration* interagiert, aber wie oben festgestellt, für die Diskursrelation selbst nicht notwendig ist. Im Zusammenhang mit den Arbeiten von Kim waren oben bereits Situationen und Individuen als Tokens von Klassifikationen dargestellt worden. Für die anvisierte Channel-Konstruktion geht es um die Rolle, die ein solches Token gleichzeitig in der E-Satz-Deutung wie in der K-Satz-Deutung spielt. Die Idee ist, dass es das Objekt ausmacht, das K- und E-Deutung miteinander teilen.

Der Text Wetter_2 liefert hierzu ein einfaches Beispiel:

Wetter_2:
(43) (K) Es regnete.
      (E1) Es fielen ungewöhnlich dicke Tropfen.

In (K) und (E1) kommen keine Satztopiks vor, vielmehr drücken beide Austin'sche Propositionen aus, d.h. klassifizieren eine Situation. Es ist plausibel, dass es in beiden Propositionen die gleiche Situation ist; sie sei - als durch den E-Satz klassifizierte Situation - mit s_e bezeichnet. Eine mit *Elaboration* einhergehende Intuition ist nun, dass (K) von (E1) impliziert wird, auch so ausdrückbar: soll sich (E1) auf (K) per *Elaboration* beziehen, setzt es die Wahrheit von (K) voraus. Dies lässt sich durch einen constraint darstellen, der die deskriptive Information dieses Zusammenhanges enthält:

(51)   FALLEN UNGEWÖHNLICH DICKE TROPFEN → REGNET

Dass ein Zusammenhang zwischen (E1) und (K) in (43) per *Elaboration* herstellbar ist, kann nun durch Annahme eines Channels erklärt werden. In einem ersten Ansatz ließe sich sagen, dass es das Token s_e ↦ s_e ist, das durch den constraint in (51) klassifiziert wird:

(52) $(s_e \mapsto s_e)$: (FALLEN UNGEWÖHNLICH DICKE TROPFEN $\rightarrow$ REGNET)

Diese Darstellung ist allerdings in zwei Hinsichten zu entwickeln. Eine ist, dass im angenommenen constraint nicht herauskommt, welcher spezifische Aspekt der K-Deutung durch die (E1) angesprochen wird. Eine solche Spezifik wollen wir aber isolieren, da auf ihr - bei Hinzukommen weiterer E-Sätze - die Dimension der Elaboration zu definieren ist. Unten wird diese Spezifik dadurch berücksichtigt, dass ein solcher constraint unter Benutzung einer K-Deutung formuliert wird, die in einem einschlägigen Aspekt modifiziert ist. Ein solcher constraint hat dann ein Schema wie in (53), wobei e ein aus der E-Satz-Deutung abgeleiteter Typ ist und k' ein Typ, der die Modifizierung der K-Satz-Deutung berücksichtigt.

(53) $(s_e \mapsto s_e)$: $(\varepsilon \rightarrow \kappa')$

Der in (52) benutzte constraint ist ausserdem in einen Zusammenhang zu stellen, der seine Leistung für die Inferenz der Diskursrelation *Elaboration* explizit macht. Im unserem Beispiel, Wetter_2, gibt es nur einen einzigen E-Satz, aus dem das Vorliegen von *Elaboration* zu abzuleiten ist. Wir können diese Inferenzmöglichkeit durch ein constraint-Schema charakterisieren, das zwei Dinge in Verbindung bringt: die Klassifikation von s_e wie in (52) und die Tatsache, dass die K-Satz-Deutung elaboriert wird. Letztere Tatsache drücken wir dadurch aus, dass die durch (K) klassifizierte Situation s_k vom Typ ELABORATED ist, aus dem die eigentliche Relation *Elaboration* abzuleiten ist. Wir haben es dann mit einem Token $s_e \mapsto s_k$ zu tun. Sei ε ein Typ, der aus der E-Satz-Deutung abzuleiten ist (vgl. etwa oben den Antezedent in (51)), und κ' ein Typ, der aus einer K-Satz-Deutung abzuleiten ist, die hinsichtlich einer Dimension modifiziert ist (vgl. Abschnitt 7.3.2). Dann gilt für die Verarbeitung von (E1) folgender Channel für *Elaboration*:

(54) $(s_e \mapsto s_k)$: $(\varepsilon \ \& \ \kappa' \rightarrow$ ELABORATED)

D.h. s_e muss, das wird in (53) illustriert, sowohl vom Typ ε wie vom Typ κ' sein; s_k ist dagegen vom Typ ELABORATED. Beim zweiten hinzukommenden E-Satz muss die in κ' angesprochene Dimension weiter spezifiziert werden, vgl. unten Abschnitt 7.3.4.

Vor der weiteren Entwicklung dieser Modellierungsidee sei darauf hingewiesen, dass mit der Konstruktion von Channels eine Maxime von SDRT nicht beachtet wird, nämlich die, die Repräsentation satzinterner Information (per DRSen) von der Repräsentation ihrer pragmatischen Rolle – gerade für die Konstruktion von Diskursrelationen – in ihrem Darstellungsformat zu unterscheiden. Eine Entsprechung zu den constraints von Channels besteht in SDRT in den Axiomen des DICE-Moduls, in welche Information aus den DRSen durch Übersetzung eingeht. Konstruktion von Channels sehe ich aber im vorliegenden Zusammenhang als nützlich an, da so die Beziehung zwischen Satz- und Diskurstopik gleichzeitig sichtbar gemacht werden kann. Die Frage nach der Beziehung

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zwischen constraints und DICE-Axiomen ist zudem für sich interessant, wenn sie auch hier nicht weiter verfolgt werden soll.[18]

7.3. Typen

Noch in anderer Weise haben wir mit dem Ausgangspunkt in SDRT zurecht zu kommen. Die Deutungen von Satzvorkommen in Texten werden dort als DRSen modelliert, denen Objekte mit dem Status von Propositionen entsprechen. Innerhalb von Channels haben dagegen die Objekte mit deskriptiver Deutung den Status von Typen, d.h. von Funktionen in Propositionen. Allerdings können wir mit Cooper (1993) DRSen eine situationstheoretische Deutung als mehrstellige Typen geben. Die Idee ist dort, dass DRSen als Objekte aufgefaßt werden können, die durch simultane Abstraktion über eine Menge von Parametern im Sinne von Aczel/Lunnon (1991) definiert sind. In einem λ-Präfix wird, zwecks semantischer Differenzierung, dann nicht nur eine Menge von Parametern spezifiziert, die den Diskursreferenten einer DRS entspricht, sondern eine Abbildung von *Rollenindizes* auf Parameter (Cooper (1993)). Eine solche Abbildung wird *assignment* genannt. Ein n-stelliger Typ wird entsprechend durch ein n-stelliges assignment abgesättigt (vgl. hierzu Cooper (1991)).

Die situationstheoretische Repräsentation solcher Typen wird im folgenden Abschnitt dargestellt. Ziel ist es, in einem constraint des Aufbaus $\phi \rightarrow \psi$ die Konstituenten ϕ und ψ spezifizieren zu können, die auch ihrerseits den Status von Typen haben. Zunächst soll das nötige situationstheoretische Vokabular vorgestellt werden.

7.3.1. Repräsentation von situationstheoretischen Objekten

Für die in Abschnitt 5 verwendete 'lineare' Repräsentation, das s vom Typ τ ist, vgl. (55), verwenden wir im folgenden eine 2-dimensionale Notation (*Extended Kamp Notation, EKN*, vgl. Barwise/Cooper (1993)) in (56): ein Token s wird in einem Feld links oben in einem Kasten notiert, der den 'internen' Typ τ enthält:

(55) $s{:}\tau$

(56)
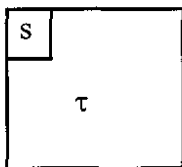
Ein konkretes Beispiel für diese Notation ist (25.a) aus Abschnitt 5. Das Token ist dort '*oracle$_x$*', der interne Typ erhält in EKN einen expliziten Rollenindex, hier einfach '*argument$_1$*'.

(25.a)   *oracle$_x$* : RUND(x)

---

[18] Auf einen semantischen Effekt, der durch den Unterschied an Granularität zwischen Channels und Ashers nichtmonotoner Implikation entsteht, weist Glasbey 1996 (dort Abschnitt 4) hin.
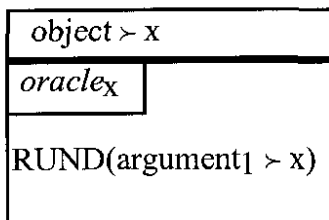
(57)

$$\boxed{\begin{array}{l} \boxed{oracle_X} \\[4pt] \text{RUND(argument}_1 \succ x) \end{array}}$$
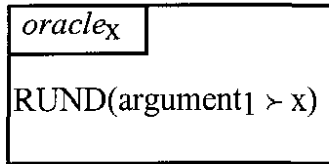
Rollenindizes werden auch bei Abstraktion eingeführt, vgl. die Darstellung des Typs (25.b) in (58), in dem der Parameter x der Wert für einen Rollenindex *object* ist:

(25.b) $\lambda x\,[oracle_X : \text{RUND}(x)]$

(58)

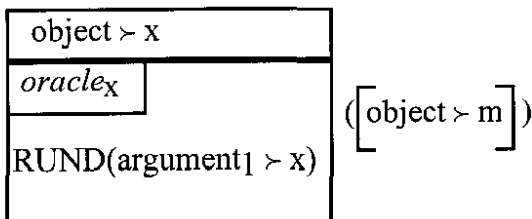$$\boxed{\begin{array}{l} object \succ x \\[4pt] \boxed{oracle_X} \\[4pt] \text{RUND(argument}_1 \succ x) \end{array}}$$

Anwendung von Typen auf Argumente geschieht unter Identifikation der Rollenindizes. Dass ein Token von einem bestimmten Typ ist, wie angegeben in (25.c), impliziert, dass es der Wert für die gleiche Rolle eines Typs und eines assignments ist, vgl. (59).

(25.c)   m : $\lambda x[oracle_X : \text{RUND}(x)]$

(59)

$$\boxed{\begin{array}{l} object \succ x \\[4pt] \boxed{oracle_X} \\[4pt] \text{RUND(argument}_1 \succ x) \end{array}} \quad (\begin{bmatrix} object \succ m \end{bmatrix})$$

Anwendung eines Typs auf ein Argument führt bei linearer Repräsentation zur Tilgung des λ-Präfixes und Einsetzung des Arguments; in EKN enspricht der Tilgung des Präfixes die Tilgung der assignment-Leiste, vgl. (60), (61):

(60) $oracle_m : \text{RUND}(m)$

(61)

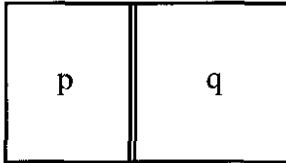$$\boxed{\begin{array}{l} \boxed{oracle_m} \\[4pt] \text{RUND(argument}_1 \succ m) \end{array}}$$
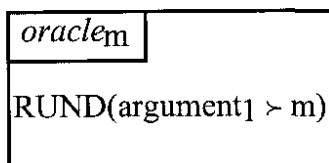
In EKN können semantische Beschränkungen auf Propositionen durch Information in einer Restriction Box dargestellt werden. In (62) sind p und q Propositionen; p ist nur dann wahr oder falsch, wenn (die Proposition in der Restriction Box) q wahr ist:
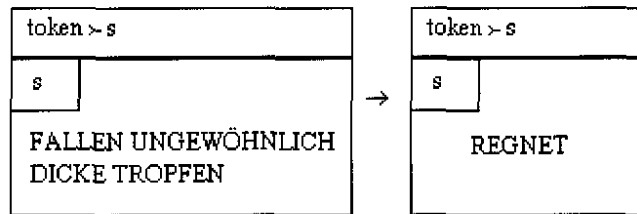
(62)

7.3.2. Modifikation der K-Satz-Deutung

Der *in (51) angegebene constraint*

(51)   FALLEN UNGEWÖHNLICH DICKE TROPFEN → REGNET

lässt sich mit den Repräsentationsmitteln aus dem vorigen Abschnitt darstellen wie in

(63)

Unbefriedigend an diesem *constraint* ist, dass er auf *Dimensionsinformation keinen Be-*zug nimmt. Das Fallen ungewöhnlich großer Tropfen spezifiziert sicher einen Aspekt des Sukzedent-Typs in (63).

Dimensionen sind sicher ein Hintergrund-Phänomen, insofern als Bestandteile einer Restriction Box darstellbar. Der hier vorgenommene Schritt ist, durch eine Dimension den Sukzedent-Typ in geeigneter Weise einzuschränken. Intuitiv liefert (E1) im vorhandenen Text nicht mehr, als dass es auf eine bestimmte Weise regnet. Statt dem Sukzedenten in (63) ist daher ein Typ wie in (64) anzusetzen, in dem s von einem um eine Rolle erweiterten (internen) Typ *REGNET(manner* $\succ$ *m)* klassifiziert wird, der seinerseits Bestandteil einer Dimension δ ist.

(64)
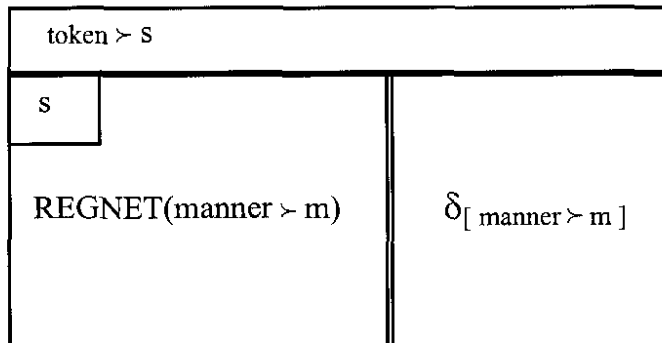
Die zusätzliche Rolle für den internen Typ (hier REGNET) ist identisch mit einer Position, die die Dimension d vergibt. Die Beziehung zwischen dem aus (K) allein ableitbaren internen Typ ('REGNET') und dem um eine Rolle erweiterten Typ ('REGNET(manner m)') kann semantisch in Anlehnung an eine Idee von J. Barwise als Explizitmachung einer *Dimension of Change* angesehen werden, die in der durch die Äußerung von (K) al-

lein klassifizierten Situation (s_K) latent war und aufgrund dieser Äußerung nicht diskriminiert wurde.[19] Erst die Artikulation von (E1) fügt dieser Situation eine Klassifizierung auch nach dieser Dimension hinzu und verfeinert ('elaboriert') sie in diesem Sinn.

Eine verallgemeinerte Darstellung des Sukzedenten gibt dann (65). Dort ist τ_K der aus der K-Satz-Deutung hervorgehende interne Typ ('REGNET' im obigen Beispiel); 'τ_K+[position$_n$≻x_n]' ist der um das Argument mit dem Rollenindex 'position$_n$' erweiterte interne Typ. Dieser wird durch Hintergrundinformation festgelegt, d.h. durch die Dimension δ.

(65)

token ≻ s	
s	
$\tau_K + [\text{position}_n \succ x_n]$	$\delta[\text{position}_n \succ x_n]$
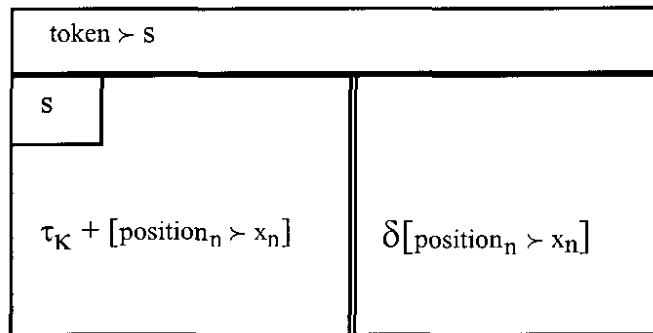
7.3.3. Dimensionen

Auch die Dimension δ wird als ein Typ konstruiert. Dabei ist wichtig, durch die Wahl geeigneter Rollenindizes im *assignment* die Aspekte der relevanten Klassifikationen auszuzeichen. Eine Dimension ist auch dadurch inhaltlich festgelegt, dass sie über ein gegebenes Objekt definiert ist, in unseren Fällen ist dies die Situation oder das Individuum, das durch die E-Sätze elaboriert wird. Dieses Objekt o hat die Rolle eines 'Rahmens' und erhält den Rollenindex *frame*.

Insgesamt leistet eine Dimension eine Klassifikation einer Sequenz von Objekten x_1, x_2, etc. anhand einer Sequenz von kontrastierenden Eigenschaften *PROPERTY*$_1$, *PROPERTY*$_2$ etc. Die Objekte sind zugänglich über Rollenindizes *position*$_1$, *position*$_2$, etc.

Ohne Rahmen, Objekte und Eigenschaften weiter semantisch einzuschränken[20] ergibt sich im allgemeinen für eine Dimension δ ein Objekt wie in

---

[19] Ich verwende hier eine Idee von Jon Barwise (1989) zur Interpretation des Kontrastes von *It's 4 o'clock* vs. *It's 4 o'clock here.* Latente Rollen sind nach seiner Darstellung mit dem Vorhandensein einer Perspektive verbunden. Stimmt meine Analyse, dann enthüllt (E1) eine Perspektive, die in (K) allein latent ist.

[20] Durch Einschränkungen auf die Eigenschaften kann (und muss eigentlich) Kontrastivität verlangt werden.

(66)

$$
\left[
\begin{array}{l}
\text{frame} \succ s_k, \\
\ldots, \\
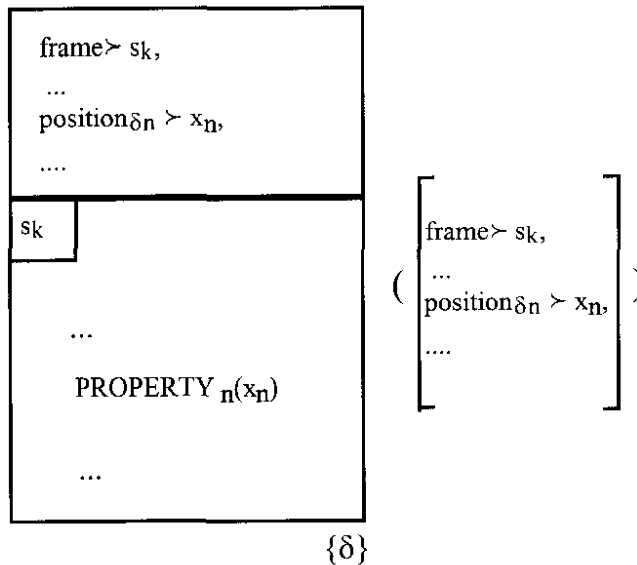\textit{position}_{\delta n} \succ x_n, \\
\ldots. \\
\hline
\begin{array}{|l|}
\hline
s_k \\
\hline
\end{array} \\
\quad \ldots \\
\text{PROPERTY}_n(x_n) \\
\quad \ldots
\end{array}
\right]
$$
$$\{\delta\}$$
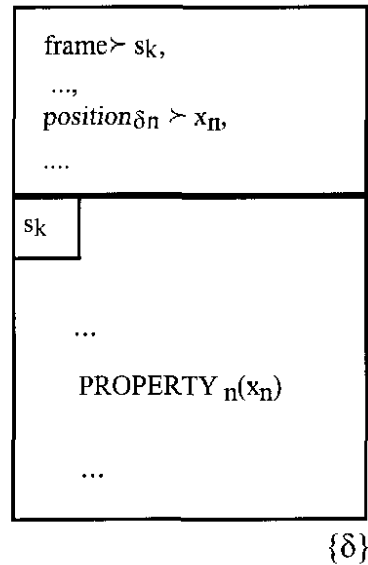
Als Typ ist ein solches Objekt weder wahr noch falsch, kann deswegen nicht als einschränkende Proposition fungieren wie q in (62) oben. Aus δ lässt sich jedoch eine Proposition definieren, indem es auf ein assignment angewendet wird, vgl.

(67)

$$
\left[
\begin{array}{l}
\text{frame} \succ s_k, \\
\ldots \\
\textit{position}_{\delta n} \succ x_n, \\
\ldots. \\
\hline
\begin{array}{|l|}
\hline
s_k \\
\hline
\end{array} \\
\quad \ldots \\
\text{PROPERTY}_n(x_n) \\
\quad \ldots
\end{array}
\right]
\left(
\left[
\begin{array}{l}
\text{frame} \succ s_k, \\
\ldots \\
\textit{position}_{\delta n} \succ x_n, \\
\ldots.
\end{array}
\right]
\right)
$$
$$\{\delta\}$$

Ein Objekt dieser Struktur hat Propositions-Status und kann in der Restriction Box eines constraint-Sukzedenten stehen. Ein inkrementell orientiertes Vorgehen ist nun, im Fall des ersten E-Satzes auch δ nur mit einer Position auszustatten. Es leistet nicht mehr als die oben dargestellte Einführung einer bisher latenten Dimension.

Wir setzen dann für die Verarbeitung des ersten E-Satzes einen constraint an wie in

(68) $\varepsilon \rightarrow \kappa_{+r1}\delta$ (klassifiziert wird die connection $s_e \mapsto s_e$)

Dabei ist ε der Typ, den die E--Satz-Deutung ergibt; $\kappa_{+m\delta}$ ist ein Typ, der aus der K-Satz-Deutung durch Erweiterung um eine 'interne Rolle' hervorgeht, vgl. oben (65). Darin ist $\kappa_{+r1\delta}$ ein Objekt von folgender Struktur:

(69)
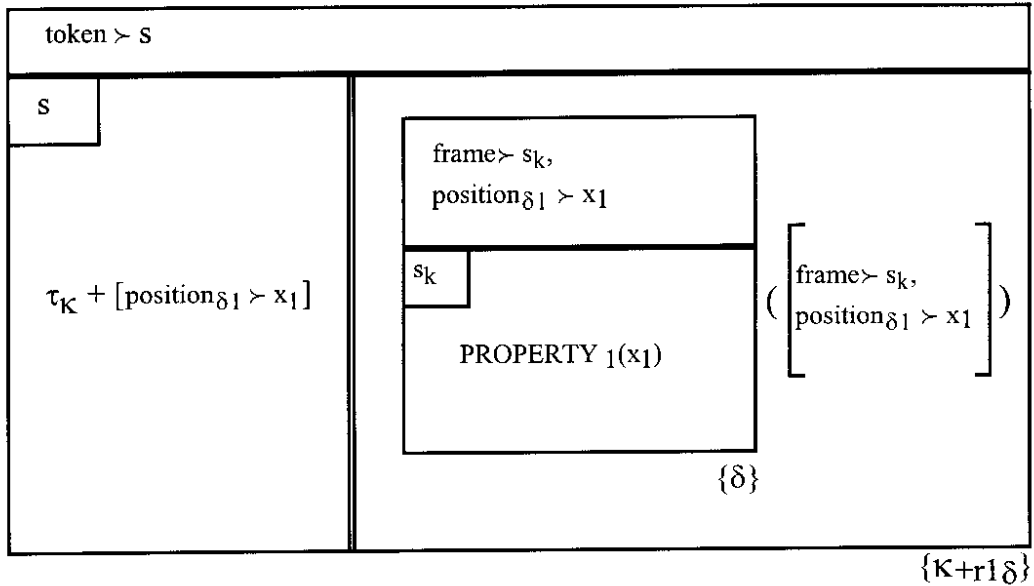
7.3.4. Constraints für den zweiten E-Satz

Ein Beispiel für einen Text mit einem zweiten E-Satz, in dem keine Satztopiks auftreten, ist

```
Wetter_1:
```
(38) (K)   Es war gutes Wetter.
     (E1) Es war nicht zu kalt.
     (E2) Und es war nicht zu trocken.

Ein constraint für die Wahl der K-Deutung als attachment site bei der Verarbeitung von (E2) ist

(70) $\varepsilon \rightarrow \kappa_{+r2\delta}$ (klassifiziert wird die connection $s_e \mapsto s_e$)

Dabei ist $\kappa_{+r2\delta}$ ist wie in (71); dort ist die Dimension δ' bereits in Bezug auf eine Position durch einen Wert b festgelegt (das Ergebnis der Verarbeitung des ersten E-Satzes).

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(71)

$$
\begin{array}{|l|}
\hline
\text{token} \succ \text{s} \\
\hline
\end{array}
$$

$$
\text{s} \qquad \tau_K + [\text{position}_{\delta2} \succ x_2]
$$

$$
\begin{array}{l}
\text{frame} \succ s_k, \\
\text{position}_{\delta1} \succ x_1, \\
\text{position}_{\delta2} \succ x_2
\end{array}
$$

$$
s_k \qquad \begin{array}{l} \text{PROPERTY}_1(x_1), \\ \text{PROPERTY}_2(x_2) \end{array}
$$

$$
\left(\begin{bmatrix} \text{frame} \succ s_k, \\ \text{position}_{\delta1} \succ b, \\ \text{position}_{\delta2} \succ x_2 \end{bmatrix} \right)
$$

$$
\{\delta'\}
$$

$$
\{K+r2\delta\}
$$
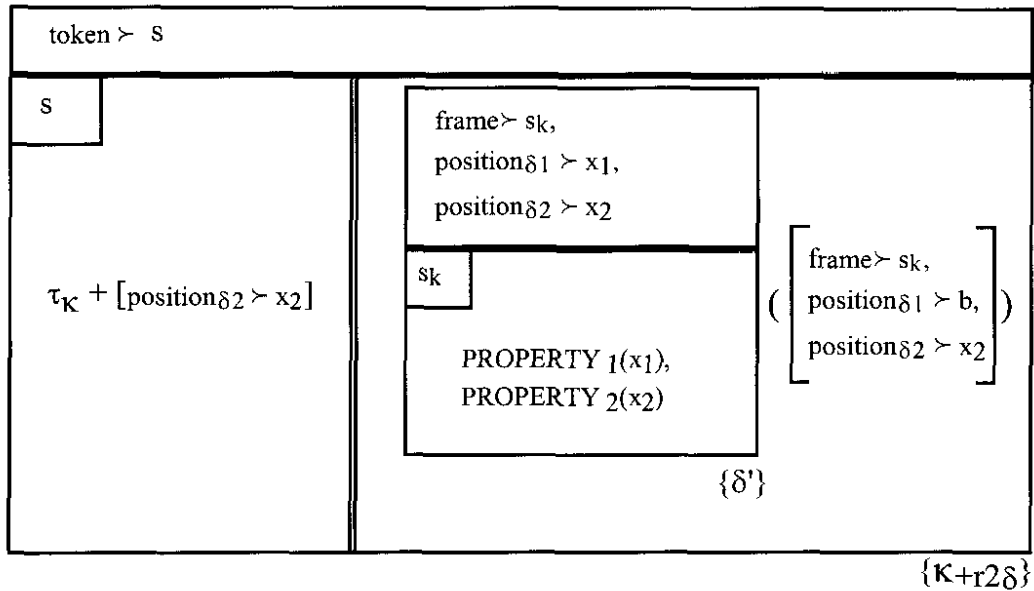
7.3.5. Constraints für Satztopiks

Ein Beispiel für einen Text mit einem Satztopik im ersten E-Satz ist

Schulwahl_I_A:

(29) (K) Nach dem 6. Schuljahr suchen die Freunde von Meryem verschiedene Schulen auf.
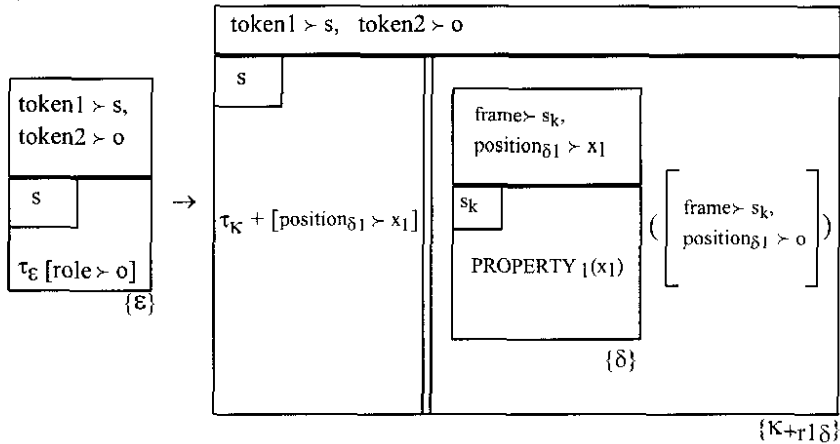
  (E1) So wird [Hamdi]$_T$ glücklicherweise aufs Gymnasium gehen.

Ein constraint für die Wahl von (K) als *attachment site* ist (72); entsprechend zu den Überlegungen in Abschnitt 6 oben wird angenommen, dass die Satztopik-Referenten Token für den constraint liefern.

(72) $\varepsilon \rightarrow K+r1\delta$ (klassifiziert werden die connections $s_e \mapsto s_e$ und $a \mapsto a$)

Die an diesem constraint beteiligten Typen klassifizieren beide eine Situation s und ein Objekt o, den Referenten des Satztopiks. Die Idee, dass die Satztopik-Referenten die 'Indizes' hergeben, anhand von denen die Elaborations-Dimension konstruiert ist, wird so berücksichtigt, dass im Sukzedenten des constraints der Wert für das Objekt o an die Dimension über das assignment vererbt wird. Der constraint hat eine Struktur wie in (73):

(73)

$$\begin{array}{|c|}\hline \text{token1} \succ \text{s,} \\ \text{token2} \succ \text{o} \\\hline \text{s} \\\hline \tau_\varepsilon\,[\text{role} \succ \text{o}] \\\hline \end{array}\{\varepsilon\} \quad \rightarrow \quad \begin{array}{|c|}\hline \text{token1} \succ \text{s,}\quad \text{token2} \succ \text{o} \\\hline \end{array}$$

Inner boxes:
- s
- $\tau_K + [\text{position}_{\delta 1} \succ x_1]$
- frame $\succ s_k$, position$_{\delta 1} \succ x_1$
- s_k — PROPERTY$_1(x_1)$
- $\left(\begin{array}{c}\text{frame} \succ s_k, \\ \text{position}_{\delta 1} \succ \text{o}\end{array}\right)$
- $\{\delta\}$
- $\{K+r1\delta\}$

Durch Anwendung auf die Token $s_e \mapsto s_e$ und $a \mapsto a$ erhält man eine Relation zwischen zwei aus (E1) und (K) abgeleiteten Propositionen:

(74)

$$\begin{array}{|c|}\hline s_e \\\hline \tau_\varepsilon\,[\text{role} \succ a] \\\hline \end{array} \quad \rightarrow \quad \begin{array}{|c|}\hline s_e \\ \tau_K + [\text{position}_{\delta 1} \succ a] \\\hline s_k \\ \text{PROPERTY}_1\,(a) \\\hline \end{array}\{\delta''\}$$
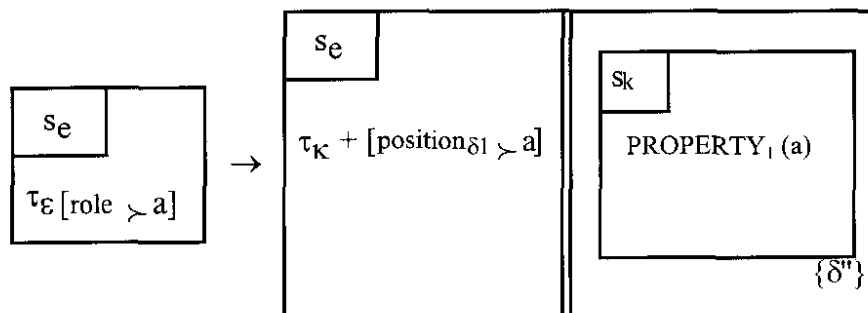
Die relevante in dieser Konstruktion enthaltene These ist, dass der Satztopik-Referent a eine durch die Dimension δ" ausgezeichnete Eigenschaft innehat, die eine Verfeinerung der Deutung von K leistet. Satztopiks kommt somit in *Elaboration*-Kontexten die pragmatische Funktion zu, direkt den Wert der Rollenindizes der Dimension festzulegen, nach der die Deutung von (K) verfeinert wird.

8. Schluss

Als Abschluss sei ein Rückblick auf die updating-Prinzipien von SDRT, dem nach wie vor intendierten Rahmen der gemachten Überlegungen, erlaubt. Diese lauteten:

1. Der Inhalt eines neu verarbeiteten Satzes erhält die Rolle einer Diskurskonstituente, die, anders als in der klassischen DRT, 'segmentiert' bleibt, d.h. nicht mit dem Inhalt vorhergehender Sätze verschmolzen wird.
2. Bei der Anknüpfung einer jeden neuen Diskurskonstituente β wird die Spezifizierung einer Diskursrelation R gefordert.
3. Im vorhergehenden Text wird eine Diskurskonsituente α (*attachment site*) ausgewählt, an die β durch R angeknüpft wird und
4. β wird zu Zwecken der Kohärenz mit α ggf. um zusätzliche Information φ angereichert. Das heißt, durch Ausnutzung von Weltwissen wird eine angereicherte Konstituente β' inferiert.

Davon wurde Prinzip 1. nicht weiter diskutiert, sondern dadurch erfüllt, dass die E- und K-Satz-Deutungen durchweg als *isolierte Objekte (Propositionen oder Typen) aufgefasst* wurden. Prinzip 2. wurde dadurch angesprochen, dass es im empirischen Kapitel 6. und im Modellierungskapitel 7. stets um das Vorliegen einer Diskursrelation ging, *Elaboration*. Im Papier wurde allerdings kaum die Wahl einer alternativen Diskursrelation diskutiert.

Prinzip 3. wurde dadurch angesprochen, dass das Vorliegen von bestimmten constraints (siehe die Diskussion von (68), (70 und (72)) als Voraussetzung für die Wahl einer Diskurskonstituente ||K|| von einem aktualen (E) aus angesehen wurde. Hier Empirische Arbeit wurde hier nur in kleinstem Umfang geleistet, eher ging es um eine Darstellung der schematischen Bedingungen.

Das Prinzip 4. wurde schließlich in der Weise inhaltlich ausgefüllt, als die Konstruktionen der einzelnen Channels gerade Information darstellen, mit denen ein aus (E) abgeleiteter Antezedent eines constraints ausgestattet werden muss, damit die Relation *Elaboration* inferiert werden kann.

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