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Discourse Configurational Languages Introduction*

KATALIN É. KISS

1. Goals

The purpose of this volume is to describe in the generative framework the language type in which primary sentence articulation is motivated by discourse-semantic, rather than theta role or case, considerations. Until recently, the existence of such a language type has not been acknowledged in mainstream generative research. As a consequence of the fact that generative research focused on English for a long time, and as a consequence of the assumption that the grammars of all languages are instantiations of one and the same Universal Grammar, it has been hypothesized that the phrase structure identified in the English sentence, involving a grammatical subject—VP dichotomy, c-commanded by a single operator position reserved for a WH operator, constitutes the core of sentence structure in every language. The possibility that this hypothesis may not be correct has been raised, among others, by the studies of the volume *Subject and Topic* (Li and Thompson (1976)). As this volume demonstrated on empirical material from various languages, the structural role that the grammatical subject plays in the English sentence may be fulfilled by a constituent not restricted with respect to grammatical function or case in other languages; or, in generative terminology: the structural relation [NP, S] can be used to express not only the function 'grammatical subject,' associated with the most prominent theta role, but, alternatively, the discourse-semantic function 'topic,' as well. Actually, the volume

* The idea of compiling this book was initiated by the EUROTYP project of the European Science Foundation, in the Word Order Workgroup of which the editor was assigned the task of studying discourse configurationality. Some of the editing, and the writing of the Introduction and the editor's chapter on Hungarian was conducted while she was a Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford. She gratefully acknowledges the financial support of the Andrew W. Mellon Foundation.

Subject and Topic has not been the first one to put forth this idea; it emerged as early as Brassai (1860, 1863–1865), and has been in the center of the work of the Prague School for decades (see, for example, Sgall and Hajičová (1973), Hajičová (1983), and Sgall (1984)).

Within the generative framework, first it appeared that the 'least costly' way of deriving the sentence structure of a topic-prominent language is to apply Topicalization, a transformation available in the grammar of English and similar languages, as well, to a D-structure with a grammatical subject—VP articulation (see, for example, Horvath (1981)). In this approach, however, topic-prominent and subject-prominent languages differ merely in how frequently they utilize Topicalization, which, on the one hand, blurs the difference between the two language types, and, on the other hand, does not reflect the intuition that in a topic-prominent language, the topic is, in a way, an alternative to the subject as the VP-external argument. There have also been attempts to generate topic-prominent sentence structure by applying Topicalization to a flat S(entence)—see Farmer (1980), and É. Kiss (1976, 1981). These approaches could not capture the parallelism between the subject-predicate and topic-predicate structures, either. Apparently, the generative framework became flexible enough to represent both the differences and the similarities of the two language types after the emergence of the 'principles and parameters' theory of Universal Grammar (Chomsky (1981)). Particular innovations in generative theory that have provided means of representing topic-prominent languages as a type different from, but parallel to, the subject-prominent type include the base-generation of the subject inside the V-projection in every language (see, for instance, Koopman and Sportiche (1990)), or the assumption of Head (Verb) Movement (see Chomsky (1986)). The base-generation of the subject inside the VP has led to the recognition of Subject Movement as a transformation similar to Topicalization; and as a result of this, subject-prominent and topic-prominent languages can be viewed now as differing in whether their sentence structure is derived by externalizing the grammatical subject, or by externalizing an arbitrary argument. (É. Kiss (this volume), in fact, proposes to analyze Topicalization, together with Subject Movement, as NP Movement, redefining NP Movement as a transformation creating a syntactic predication relation.) Naturally, this approach requires an explanation (perhaps in terms of case theory) of why argument-externalization must involve the grammatical subject in some languages, and can involve any argument in others. Alternatively, the subject in subject-prominent languages and the topic in topic-prominent languages can be assigned to different VP-external positions, and the structurally parallel subject-predicate and topic-predicate relations can be established by Verb Movement into the head position of the maximal projection dominating the subject, or into the head position of the maximal projection dominating the topic, respectively (see, for instance, Ortiz de Urbina (1991)).

The fact that many languages have a designated structural position for focus, akin to the WH-position of the English sentence, has become recognized in generative theory in the second half of the seventies—owing to the work of Schachter (1973) on Akan, Hausa, and Ilonggo; Horvath (1976), (1981), and É. Kiss (1977), (1981) on Hungarian; Givón (1975) on various Bantu languages; Awobuluyi

(1978) on Yoruba; Watters (1979) on Aghem; and de Rijk (1978) on Basque, among others. Whereas the early studies focused on where to assume the focus position in phrase structure, and how to analyze the Focusing transformation, in the eighties and early nineties the comparative perspective of the Government and Binding theory and the principles and parameters approach has led to the question why overt focus movement is triggered in some languages but not in others. Is it the case that languages may differ in whether the focus operator must occupy a scope position at S-structure or at LF (cf. É. Kiss (1987))? Or is a designated structural focus position licensed in languages in which the syntactic feature [+Focus]—assumed to trigger Focus interpretation both at LF and PF—is limited to being assigned by a particular X^0 category, namely V (see Horvath (1981), (1986))? With the emergence of functional projections, further possibilities of description have arisen: languages may have a particular functional projection with a head marked [+Focus], and focus movement may be triggered by the necessity of spec-head agreement, or by the requirement of feature licensing (see Choe (1989, this volume) and Brody (1990)). In this framework, languages with structural focus and languages with focus-in-situ can, again, be viewed either as differing in the level of representation at which the spec-head agreement or feature licensing must take place, or as differing in the features of their functional heads.

As generative analysis has been extended to more and more languages, it has become obvious that languages in which topic and focus form key constituents of sentence structure, i.e., languages in which primary sentence articulation serves to express discourse-semantic functions, represent a type which is presumably as common as the language type represented by English; it spreads across continents and across language families. In Europe, Basque (de Rijk (1978), Ortiz de Urbina (1991), Eguzkitza (1987), Rebuschi (1989)), Catalan (Vallduví (1990, 1991)), Hungarian (Horvath (1986), É. Kiss (1987)), Bulgarian (Rudin (1986)), Russian (King (1993)), Greek (Tsimpli (1990), Agouraki (1990)), Finnish (Vilkuna (1989)), Romanian (Primus (1992), Ulrich (1985)), Turkish (Erguvanli (1984)), and several of the Caucasian languages, among them Armenian (Comrie (1984)) and Circassian (Ouhalla (1991)) have been identified as discourse-configurational languages. From Asia, Nepali (Wallace (1985)), Hindi (Gambhir (1981)), and Korean (Choe (1989), Jo (1986)) have been reported to be discourse-configurational, whereas Japanese, and in some accounts, Chinese are known to be topic-prominent. African discourse-configurational languages include, among others, Somali (Lecarme (1992); Svolacchia, Mereu, and Puglielli (this volume)), the Chadic languages (Tuller (1992), Horvath (this volume)), the Bantu Aghem and Kikuyu (Watters (1979), Clements (1984)), Yoruba (Awobuluyi (1978) and Berber (Calabrese (1987), Ouhalla (1990)). Of the American Indian languages, Haida (Enrico 1986, in preparation), Omaha (Rudin (1992)), the Mayan languages (England (1991), Aissen (1991)), and Quetchua (Muysken (this volume)) are known to be discourse-configurational. According to evidence presented in Schachter (1973), the Austronesian Ilonggo may also belong to the language type in question.

The eleven papers in this volume analyze discourse-configurational languages from four continents: Chadic, Somali, Basque, Catalan, Old Romance, Greek, Hungarian, Finnish, Korean, and Quetchua. (The ordering of the papers in the volume corresponds to the "areal" order of the languages that they discuss.) These papers serve, on the one hand, to establish empirically the claim that discourse-configurational languages represent a widespread language type that is to be reckoned with when formulating hypotheses about Universal Grammar. On the other hand, they aim to explore ways of representing discourse-configurational languages in the generative framework; they propose phrase structures for such languages, and attempt to identify the parameters of Universal Grammar that are responsible for topic-prominence and for structural focus. Although the analyses proposed here converge to a considerable extent, no unified solution is provided; rather, alternative hypotheses are put forth, the viability of which will have to be tested by further research.

2. What is Discourse Configurationality?

The properties on the basis of which a language is categorized as discourse configurational are, in intuitive terms, the following:

- A. The (discourse-)semantic function 'topic,' serving to foreground a specific individual that something will be predicated about (not necessarily identical with the grammatical subject), is expressed through a particular structural relation (in other words, it is associated with a particular structural position).
- B. The (discourse-)semantic function 'focus,' expressing identification, is realized through a particular structural relation (that is, by movement into a particular structural position).

While these two properties often co-occur, they are independent of each other. Most of the languages studied in this volume share both, i.e., they are type AB discourse-configurational languages, but, for instance, Aghem is shown (by Horvath) only to have property B (type B discourse-configurationality). There are also languages which only display property A (type A discourse-configurationality); the best-known example is Japanese.

Properties A and B are sometimes realized in modified forms. For instance, in Finnish the semantic function of contrast may cut across, and supersede the functions of topic and focus: there is a sentence initial position (in addition to a topic position) that can be occupied by a contrasted element of either topic or focus function.

Below, I will give a brief semantic and syntactic characterization of properties A and B, and their key notions, the topic and the focus—partly on the basis of previous literature, partly on the basis of the studies in this volume. I will compare the syntactic realizations of topic and focus across languages, pointing

out the invariant elements in the language-specific descriptions, and attempting to identify the parameters of variation.

3. Topic-Prominence

Topic as a (discourse-)semantic term denotes the function of the constituent that the sentence is about. Under a particular, semantic, or 'notional,' interpretation of the subject-predicate relation (see Rothstein (1983)), the topic is identical with the subject of predication, or in other words, with the 'notional subject.'

Although the topic, or notional subject, very often coincides with the grammatical subject, that is, with the constituent expressing the most prominent theta role, and bearing nominative case and agreeing with the finite verb in many languages, this is not necessarily so. Sentences which have a grammatical subject can be subjectless semantically. The distinction between propositions containing a notional subject, and propositions not containing any (categorical versusthetic judgements in the logical theory of Marty (1918), (1965)) has been introduced into generative literature by Kuroda (1972–73). As he puts it, categorical judgements, displaying a notional subject–notional predicate structure, consist of two acts: the act of recognition of that which is to be made the notional subject, and the act of affirming or denying what is expressed by the predicate about the notional subject. In accordance with their role of fore-grounding a particular individual as the subject of predication, notional subjects/topics are [+specific] referring expressions. (Most types of generics, for instance, definite generics, can also function as topics—as expected on the basis of analyses treating them as referential expressions, representing names of kinds—see Carlson (1978) or Heyer (1985)). Here are two categorical judgements, displaying a notional subject—notional predicate structure:

- (1) a. Fido is chewing a bone.
- b. The dog is a domestic animal.

Athetic judgement, containing a mere notional predicate, on the other hand, consists of a single act: the act of the recognition of the material of a judgement. The linguistic realizations of thetic judgements include impersonal, existential, presentative, and universal sentences:

- (2) a. It is raining.
- b. There is a dog in the room.
- c. A dog came into the room.
- d. All dogs like bones.

Although it is not predicted by Marty's theory that a categorical judgement can contain more than one notional subject, this seems to be the case in many natural languages (in the majority of those discussed in this volume). Consider the Catalan sentences in (3):

- (3) a. L'Anna el cafè [el va fer ahir]
 Anna the coffee it made yesterday
 'The coffee Anna made yesterday.'
 b. El cafè l'Anna [el va fer ahir]

The two sentences mean exactly the same, which argues against a recursive, two-level notional subject-notional predicate structure, such that, for example, in (3a) *el cafè el va fer ahir* is predicated of *l'Anna*, and within the predicate, *el va fer ahir* is predicated of *el cafe*. It seems more appropriate to say that the sentences in (3a) and (3b) make statements about two participants of the given event, that is, they predicate about two notional subjects.

The notion of topic, or notional subject, has also been reinterpreted in dynamic semantic frameworks. According to Vallduví (1990, this volume), the role of the topic (in his terminology, 'link') is to indicate under which address in the hearer's knowledge store the new information carried by the sentence is to be entered. A language is identified as topic-prominent, more precisely, as a discourse configurational language with property A, if it realizes categorial and thematic judgements in different syntactic structures. English is obviously not of this type, as sentences (1a, b), expressing categorial judgements, and sentences (2a-d), expressing thematic judgements, have the same syntactic structure. Now compare their Hungarian equivalents:

- (4) a. [_T Fido] [_{VP} rág egy csontot]
 Fido chews a bone
 'Fido is chewing a bone.'
 b. [_T A kutya] [_{VP} háziállát]
 the dog domestic-animal
 'The dog is a domestic animal.'
- (5) a. [_{VP} Esik az eső]
 falls the rain
 'It is raining.'
 b. [_{VP} Van egy kutya a szobában]
 is a dog the room-in
 'There is a dog in the room.'
 c. [_{VP} Bejött egy kutya a szobába]
 came a dog the room-into
 'A dog has come into the room.'

Although a universally quantified subject is in preverbal position, its position is different from that of a nonquantified specific subject. This becomes clear if for example a sentence adverbial, which must be external to the VP, is inserted into both sentence types:

- (6) [_T Fido] szerintem [_{VP} szereti a csontot]
 Fido according-to-me likes the bone
 'Fido, according to me, likes bones.'
- (7) a. *[_T Minden kutya] szerintem [_{VP} szereti a csontot]
 every dog according-to-me likes the bone
 'According to me, all dogs like bones.'
 b. Szerintem [_{VP} minden kutya szereti a csontot]

In the language type which assigns to categorial and thematic judgements different syntactic structures, the notional subject, or topic, does not have to coincide with the grammatical subject at all. Thus sentences (5a-c), or (7b), in which the grammatical subject, not being referential and specific, is not suitable for a notional subject role, can be reformulated as sentences with a notional subject-notional predicate articulation, predicating about the object or the goal argument:

- (8) a. [_T A szobába] [_{VP} bejött egy kutya]
 the room-into came a dog
 'Into the room came a dog.'
 b. [_T A csontot] szerintem [_{VP} minden kutya szereti]
 the bone-ACC according-to-me every dog likes
 'In my opinion, bones are liked by every dog.'

The question whether in a particular language categorial and thematic judgements are expressed by identical or different syntactic structures is actually not a trivial one. As Vallduví (1993) showed in connection with Catalan, a T(topic) VP structure can be easily misdiagnosed as a S(subject) VP structure—owing to the fact that in the case of an agentive predicate, the agent is the most unmarked carrier of both the topic role and the grammatical subject role. To decide the issue, it has to be carefully examined whether or not specific and non-specific (including universally quantified) grammatical subjects share the same structural position (if they do, the language does not distinguish categorial and thematic judgements syntactically; hence it is not topic-prominent). It is, naturally, also to be tested if a sentence-initial grammatical subject occupies the same position as, say, a preposed object; or in case a sentence contains a preposed grammatical subject and a preposed object, whether their relative order is free. If it is, it is indicative of property A (topic-prominence). (Recall that in the great majority of discourse-configurational languages with property A, more than one topic is possible, and their order is free.)

To make the classification of languages on the basis of criterion A even more difficult, there also exist complex borderline cases. In Finnish, according to Vilkuna (this volume), there is a syntactic position which is to be filled by the topic in the case of categorial judgements. In the case of thematic judgements, on the other hand, the same position has to be filled by the grammatical subject. Vilkuna calls the latter case default topicalization. In another language type, represented, for example, by Dutch and Icelandic, or by German in embedded

contexts (see Diesing (1992)), the grammatical subject occupies the VP-external subject-of-predication position not only if it is referential and specific, but also if it is quantified (according to Diesing, if it is quantified *and* specific). In Hungarian (see É. Kiss (1991a)) or in Mayan (Judith Aissen p.c.) quantified phrases are moved into an A-bar position distinct from the topic position. Apparently, in Dutch, Icelandic, and in German embedded clauses, the topic position and the quantifier position are not distinguished; or, in these languages, the condition of complement externalization is that the complement be [+specific], rather than referential and [+specific] (see Diesing (1992), chapters 3.3 and 3.4). In any case, neither Finnish, nor Dutch, Icelandic, or German are topic-prominent according to our criterion, as categorical andthetic judgements are not consistently distinguished in either of them.

To illustrate the difficulties of distinguishing between T VP and S VP structures, let us refer to a case in Basque. As Ortiz de Urbina (this volume) explains, in a Basque sentence of the order [XP YP V], XP functions as topic, and YP functions as focus—unless XP is subject, and YP is object, in which case the sentence can also be communicatively neutral. To account for its neutrality, Ortiz de Urbina assumes SOV to be the initial order, and derives TFV by Topicalization, Focusing, and V Movement (which is a necessary correlate of Focusing), as follows: $[T_{ij} F_{ij} V_k [t_i t_j t_k]]$. This derivation would predict the possibility of $[T_i [S t_i V]]$ sentences; however, such sentences do not exist; in an OSV sentence, S is necessarily focus. The description faces a dilemma: it either needs an ad hoc filter to rule out $[T_i [S t_i V]]$ sentences, or it assimilates the neutral SOV order to the TFV pattern, and allows object foci not to be interpreted as identifying operators.

The identification of topic may be problematic not only because of the close correspondence between the topic and the grammatical subject. The topic may also be difficult to distinguish from non-topic left peripheral elements. In Hungarian, for instance, a left peripheral element can be either CP-internal or CP-external, and it functions as a notional subject only in the former case (cf. É. Kiss (1987, ch. 2), and (1991b)). A CP-internal left peripheral element (i.e., a topic) is always referential and specific; a CP-external left peripheral element, on the other hand, can also be a quantifier or a predicative nominal, even a verbal prefix. Fortunately, in Hungarian there are also some formal (syntactic and phonological) criteria for distinguishing between the two types of constituents. The CP-internal topic is preposed from the VP by a movement rule, the equivalent of English Topicalization, hence the topic—gap relation is subject to Subjacency. The CP-external left peripheral element has been identified as an instance of Left Dislocation: it can be associated with a resumptive pronoun, its relation to the corresponding gap does not have to observe Subjacency, etc.

This naturally does not mean that it is the syntactic rule called Topicalization that creates constituents functioning as topics/notional subjects across languages; or that a constituent derived in syntax by Left Dislocation is never topic semantically. On the contrary, the topic is analyzed as the output of Left Dislocation in many languages—especially in those in which it is associated with a resumptive pronoun, as in Haida (Enrico (1986, and in preparation)), Jakaltek and Tzotzil

(Aissen (1991)), or Somali (Svolacchia et al. (this volume)). The study on Somali distinguishes between topics created by Clitic Left Dislocation, and topics created by Hanging Topic Left Dislocation (cf. Cinque (1990)), traditionally called *nominativus pendens*. The latter are more loosely related to the subsequent predicate: they have nominative case, and they are not arguments of the predicate (therefore, they do not actually qualify as subjects of predication, or topics, according to the criteria to be presented below). Whereas sentence adverbials often share the left-peripheral position of topic constituents, they are not analyzed as such in the papers of this volume; only arguments are claimed to have the ability of denoting that which the sentence is about. (In É. Kiss (this volume), locatives and temporals are allowed optionally to have the status of non-obligatory arguments; hence they can be analyzed as topics.)

It is important to emphasize that the answer to the question of whether a language displays property A—or property B—of discourse configurationality is independent of the traditional configurationality issue, i.e., whether or not the grammatical functions 'subject' and 'object' are configurationally distinguished in the given language. The existence of a notional subject position has nothing to do with whether the grammatical subject and the object occupy structurally parallel or non-parallel positions inside the notional predicate. Two of the languages claimed to be discourse-configurational: Haida (Enrico (1986, and in preparation)), and Hungarian in the analysis of É. Kiss (this volume), are assumed to have a flat VP, which also includes the subject. In the other cases it is either explicitly claimed or implicitly assumed that the base-generated position of the subject is structurally more prominent than that of the object.

The formal properties of the topic constituents of the languages examined in this volume can be summarized as follows: The topic has a morphological marker in two of the languages (Korean and Quetchua); apparently topic markers are less frequent than focus markers. The studies that also consider facts of phonology claim that the topic cannot bear the main stress of the sentence.

Syntactically, the topic is external to the notional predicate—even though the syntactic category assigned to the notional predicate is not the same in every language (it is unclear to what extent this is due to factual differences between the languages, and to what extent to differences in notation). In Finnish, and in Hungarian (according to É. Kiss), it is said to be external to the VP. In Basque, Catalan, Korean, Somali, and in Hungarian in the analysis of Horvath, it is external to the IP. In Greek it is external to T(ense)P. In Quetchua, where IP is claimed to be dominated by a focus projection called Ev(indential) Phrase, it is external to EvP. The precise location of the topic also depends on whether or not the given language allows multiple topics. In case it does, the authors usually assign the topics to adjoined positions. Thus in Catalan it is adjoined to IP; in Greek, to TP; in Quetchua, to EvP. (The adjunction analysis corresponds to the standard GB analysis of Topicalization as adjunction to IP—see Lasnik and Saito (1992).) In Somali, the topic is placed in [Spec, CP], and multiple topics are derived by the recursion of the C projection. É. Kiss derives multiple topics in Hungarian by moving one into [Spec, T(ense)P], and adjoining the rest to TP.

In Korean, which allows a single topic per clause, the topic is placed in [Spec, CP] by Jo. Choe analyzes Korean topic constructions similar to relative clauses: the topicalized NP is external to a Topic Phrase, the specifier of which is occupied by an empty operator.

Topics typically precede WH-phrases. Some authors take this as evidence of their being adjoined to CP. At the same time, however, topics in embedded clauses tend to follow the complementizer. In fact, Bulgarian is the only language described in the literature surveyed in this introduction in which the topic of an embedded sentence can precede the complementizer (see Rudin (1986)). In Catalan, Hungarian, or Korean no contradiction arises in the relative ordering of the complementizer, the topic, and the WH-phrase because the WH-phrase is assigned to the specifier position of a projection below the complementizer (IP, VP, and FP, respectively). Another way of resolving this contradiction is assuming CP-recursion (see for instance, Aissen (1991)). In Somali, the string of topics can be not only followed, but also interrupted, or preceded by the focus, which is derived by placing both topics and the focus into the specifier position of recurring CP projections (see Svolaccia et al. (this volume)).

Some languages, for instance Somali, Catalan, and Greek, also have after-topics, which share the phonological properties and the morphological marker (if any) of pre-topics. After-topics express old information; it is unclear, however, if they have any other semantic function. Vallduvf (1993) shows that a Catalan post-topic does not function as a notional subject, or in his dynamic semantics framework, as an address under which the information conveyed by the sentence is to be entered.

The topic is often associated with a resumptive pronoun or clitic (more often than the focus). There is an obligatory resumptive pronoun in Somali, Greek, and Catalan, and an optional resumptive pronoun in Korean. Other languages reported in the literature in which the topic co-occurs with a resumptive pronoun include Haida (Enrico (1986, and in preparation)), Bulgarian (Rudin (1986)), and Jakalteq and Tzotzil (Aissen (1991)).

There is no general agreement among the authors on whether topics are extracted from the predicate by movement, or base-generated in their surface position and associated with the predicate-internal gap by coindexation. The presence of a resumptive pronoun in Somali, Greek, and Korean (as well as in Haida (Enrico (in preparation)) and Jakalteq and Tzotzil (Aissen (1991))) is taken to be evidence of base-generation. In the case of Korean (and Haida, Jakalteq, and Tzotzil), the assumption of base-generation is also supported by the limited occurrence of topic in embedded contexts, and by a lack of Subjacency effects. In Greek, the topic can not only bear a case corresponding to the predicate-internal gap, as expected in the case of movement, but, alternatively, it can also bear nominative. At the same time, the topic-gap relation observes Subjacency. Tsimpli resolves the contradiction between the presence of a resumptive pronoun, indicative of base generation, and the observance of island constraints, indicative of movement, by base-generating the topicalized lexical element in situ, and moving an invisible *pro*, generated in argument position as a sister to the resumptive clitic. A similar derivation is proposed by Choe.

The structural relation holding between the topic constituent and the predicate phrase (whether its syntactic category be VP, IP, TP, FP, or EvP in the given language) appears to be a version of the syntactic predication relation identified in Williams (1980) and Rothstein (1983). (In Somali, the situation may be more complex, owing to the mingling of the topics and the focus.) This syntactic predication relation is, in essence, a strictly local relation (marked by coindexation) between two maximal projections—one of which, functioning as the subject of predication, c-commands the other, functioning as the predicate, and binds an argument position in it. The locality relation between the subject of predication and the predicate is hard to give an invariant formulation, given that the technical details of description in the different languages do not coincide; for instance, the precise formulation is affected by whether the subject of predication occupies specifier position, adjoined position, or can occupy either. The locality condition on predication was identified in Williams (1980) as mutual c-command. With the emergence of Infl, it had to be reformulated as mutual m-command (see Rothstein (1983)). If, however, Topicalization involves adjunction, as proposed by most of the authors of this volume, then even m-command is too restrictive, because in the framework of Chomsky (1986), the complement of a head does not m-command the constituents adjoined to the maximal projection of the head (thus e.g. the IP complement of C does not m-command the NPs adjoined to CP). A locality condition that would adequately constrain in most languages described in this volume the relation between the subject of predication and the predicate would be the requirement that there be no intervening maximal projection that c-commands the predicate, and does not c-command the subject of predication. (Alternatively, predicates could be analyzed as being of the category *X'*, and the subject of predication could be identified with the specifier of *XP*, as in Stowell (1981). This view, however, would not be compatible with analyses in which the topic phrase is adjoined to the predicate phrase, for instance, with the analyses of Catalan, Greek, or Quetchua proposed in this volume.)

If the structural relation holding between the topic and the predicate in topic-prominent languages is, indeed, the same syntactic predication relation that holds between the subject and the predicate in subject-prominent languages, then the main difference between the two language types is that in topic-prominent languages the (primary) syntactic predication structure is always directly mapped on a notional predication relation, whereas in subject-prominent languages this is not the case.

It is reasonable to assume that the notional predication structure (that is, the categorial or the thematic nature) of a sentence is part of its meaning, and it is 'read off' the structure entering semantic interpretation in every language. Then the subject-prominent English and the topic-prominent languages described in this volume differ in the level of representation at which they structurally represent predication. Whereas in topic-prominent languages it is represented at S-structure already, in English, the predication structure may be identified at LF, after operator movement has taken place (see Guéron (1980), and Rothstein (1983)). Hence a quantifier, or a non-specific, obligatorily stressed, focus phrase is re-

moved from subject position to operator position prior to predication interpretation, so it is not interpreted as a notional subject.

In view of this, the criterion of topic-prominence can be reformulated as follows: a language has property A of discourse configurationality if and only if in that language there is a one-to-one correspondence between the syntactic and notional predication structures.

The possibility of representing the notional predication structure of a sentence structurally either visibly, at S-structure, or invisibly, at LF, might be regarded as a parametric variation allowed for by Universal Grammar. It also holds of other semantically significant relations, for instance, of various operator-variable relations, that they can be structurally encoded either at S-structure or at LF across languages. However, the assumption that languages can choose at random between representing the categorial versus thematic semantic structure of sentences at S-structure, and representing it at LF, would be contrary to the spirit of the Principle of Least Effort of Chomsky (1991), or the Earliness Principle of Pesetsky (1989). English is presumably forced to externalize the grammatical subject in every case, and subsequently remove it from subject position if it is not a [+specific] referring expression, and cannot be interpreted as a notional subject, because in English the grammatical subject cannot receive nominative case from inflection inside the VP. Once the conditions of nominative assignment are satisfied, argument externalization is free—via Topicalization and PP Preposing. If this assumption is right, then topic-prominence and subject-prominence derive from a parameter determining the way of nominative assignment in a given language.

The language type represented by Dutch, Icelandic, or German embedded sentences does not conform either to the subject-prominent or to the topic-prominent type. It is beyond the scope of this introduction and this volume to speculate about which parameters interact in triggering and constraining complement externalization in these languages.

The variation observed among topic-prominent languages can be traced back to a few minor parameters. In the syntactic realization of the topic-predicate structure, the syntactic category of the predicate can vary (it can be VP, IP, FP, etc.) It is also subject to parametric variation whether or not the topic is morphologically marked, and whether or not it bears the case assigned to the gap in the predicate. The gap in the predicate can be either empty, or filled with a resumptive pronoun/clitic. The presence or absence of resumptive pronouns may be a secondary effect, depending on whether the topic is related to the gap by movement or merely by construal. It varies whether a language allows one or more topic per clause; this, again, may be a consequence of whether the topic argument is externalized via substitution, or by some other means. Or, if multiple topicalization is substitution into the specifier positions dominated by an iterated maximal projection, then the possibility of multiple topicalization depends on whether or not the maximal projection immediately dominating the topic can be iterated.

4. Focus-Prominence

The term *focus* is used in linguistic literature in at least two different senses: it can denote the sentence part carrying new information, and it can also mean an operator expressing identification. The two meanings are often referred to as wide focus and narrow focus, respectively. In generative syntax the latter notion, that of the focus operator, has gained significance. Although the focus operator has neither a morphological marker, nor an invariant position in English, its presence in a sentence has visible consequences; thus it triggers Weak Crossover effects, similar to quantifiers—see Chomsky (1976). Consider, for instance:

- (9) a. *His_i mother loves JOHN_i.
b. His_i mother loves John_i.

Whereas in (9b) *John* and the pronoun *his* are co-referent, in (9a) they are not—obviously because in (9a) the focused JOHN is an operator, which, incapable of referring, can only bind a pronominal, provided it c-commands the pronominal. Although at LF the focus operator is moved into an A-bar position from which it c-commands *his*, the c-command condition of binding should be satisfied by the variable left behind in its S-structure position.

It is the focus operator that is associated with a particular structural position in most discourse-configurational languages, as well.

As for its semantic role, the focus operator operates on a set of contextually relevant entities present in the domain of discourse, and identifies all and only the elements of this set of which the predicate holds. Consider, for example, the interpretation of the following Hungarian sentence:

- (10) JÁNOS kapott jelest.
John got A+
'It was John who got A+.'

We can use (10) in a context or situation which involves a previously established set of persons: for instance, the members of a class. The focusing of *János* means that of the members of this set John is the only one of whom it is true that he got A+.

The intuitive content of focusing has been formulated semantically in various ways. Szabolcsi (1981) and (1983) described the semantic function of focus in terms of first order predicate logic, showing that the proposed interpretation is equivalent to a Montagovian higher order representation. In her formulation, the meaning of (10) can be paraphrased as follows:

- (11) For every x , x got A+ if and only if $x=John$.

The significance of Szabolcsi's work on focus consisted, among other things, in arguing against the views that focus is a stylistic or pragmatic phenomenon (see Rochemont (1978)), or that its semantic contribution can be analyzed as a mere

conversational implicature (see Horn (1981)). As Szabolcsi (1981) demonstrated on Hungarian material, a focus operator changes the truth conditions of a sentence; for instance, it changes the logical consequences of the sentence. Compare (12a, b) with their counterparts involving focusing in (13a, b). Whereas (12b) is a logical consequence of (12a), (13b) is not a logical consequence of (13a):

- (12) a. János és Mari jelest kapott.
John and Mary A+ got
'John and Mary got A+.'
b. János jelest kapott.
John A+ got
'John got A+.'
- (13) a. JÁNOS ÉS MARI kapott jelest.
John and Mary got A+
'It was John and Mary who got A+.'
b. JÁNOS kapott jelest.
John got A+
'It was John who got A+.'

In accordance with the fact that (13b) is not a logical consequence of (13a), either sentence can be conjoined with the negation of the other, without any contradiction arising. If the two subjects were not focused, such a conjunction would be impossible.

- (14) Nem JÁNOS kapott jelest, hanem JÁNOS ÉS MARI (kapott jelest).
not John got A+ but John and Mary got A+
'It was not John who got A+ but it was John and Mary (who got A+).'

Kenesei (1986, 1993), while maintaining the quantificational approach to focus, argued against Szabolcsi's formula in (11), which treats focus as an operator expressing exhaustive listing, and proposed to analyze focus as an operator expressing identification, or, when contrastive, expressing exclusion by identification with respect to some domain of discourse *D*. It is an appealing property of the quantificational approach to focus that it can easily account for the fact that the semantic operation performed by the focus has two versions: it can express contrast (that is, identification with exclusion), or identification only. When the focus operator quantifies on a closed set of individuals, the identification of the subset of which the predicate holds also creates a complement set, of which the predicate does not hold—hence identification goes together with exclusion (for slightly different views on this, see Szabolcsi (1992) and É. Kiss (1993, n.7)). If the relevant set of entities quantified over is not a closed set, naturally, complement formation cannot take place; hence the subset identified as such of which the predicate holds cannot be contrasted with a complement subset of which the predicate does not hold. For example:

- (15) A Háború és békét TOLSZTOJ írta.
the War and Peace-ACC Tostoy wrote
'War and Peace was written by TOLSTOY.'

In the unmarked case, (15) does not presuppose a closed set of persons who might have written *War and Peace*. Consequently, the focus operator identifies the writer of *War and Peace* without also excluding particular, contextually relevant individuals as its author. Constituents not denoting individuals, for instance, adverbials of manner, do not express identification by exclusion, either, since—as Szabolcsi (1983) and (1992) argues—complement formation (similar to other Boolean operations) is only meaningful when applied to individuals (see (16a)). The context, however, can individuate predicative constituents, as well—by listing them. The list also provides a closed set of them; hence in such cases (for example, in (16b)) both conditions of 'identification by exclusion' are satisfied.

- (16) a. János FIGYELMESEN töltötte ki a kérdőívet.
John carefully filled in the questionnaire
'John filled in the questionnaire CAREFULLY.'
b. János nem FIGYELMESEN, hanem LASSAN töltötte ki a
John not carefully but slowly filled in the
kérdőívet.
questionnaire.
'John filled in the questionnaire not CAREFULLY but SLOWLY.'

In the influential work of Rooth (1985), the focus is assumed to generate a set of alternatives. Thus the sentence *JOHN got A+*, when used in a situation involving, say, a class consisting of five members (John, Mary, Eve, Susan, and Peter), expresses that the alternatives exist that *John got A+*, *Mary got A+*, *Eve got A+*, *Susan got A+*, and *Peter got A+*. A problematic feature of Rooth's theory is that it does not represent the exhaustiveness involved in many instances of focusing; unless the sentence contains an explicit *only*, Rooth's representation will not imply that of the set of alternatives only the alternative *John got A+* is true.

The non-quantificational approach to Focusing, treating focus as an operator generating a set of alternative propositions, argues against the quantificational view, among others, by pointing out that the quantificational approach implies the movement of focus into A-bar position, even though Focusing does not observe Subjacency, the criterion of movement transformations. Thus in the sentence *They are looking for an ex-convict with a RED shirt*, the focus is the adjective *red*, which cannot be moved out of its NP. In Rooth's approach, the identification of focus does not run into this problem. Alternatives of the following type are generated to the proposition expressed in the sentence: *They are looking for an ex-convict with a BLUE shirt*; *They are looking for an ex-convict with a WHITE shirt*; and the focus is the constituent (whether major or minor) that has different values in the alternatives. However, on the one hand, it is not obvious that LF movement is subject to Subjacency. On the other hand, in lan-

guages with overt focus movement, Focusing does observe Subjacency: only the equivalent of the whole constituent *an ex-convict with a red shirt* can be focused, whether or not *red* is given contrastive stress within it. Interpretation must obviously be derived the same way as the interpretation of interrogative phrases with an embedded WH-word is derived (for instance, in *An ex-convict with what shirt are they looking for?*). It would not be counter-intuitive at all to assume that in such cases, the focus/interrogative operator quantifies over the individuals being looked for, instead of colors, and to refer to pragmatics the fact that the individuals looked for in the domain of discourse are all ex-convicts wearing a shirt. Notice that the answer required by a question involving an embedded WH word cannot be of the category of the WH-word; it must be of the category of the whole WH-moved phrase:

- (17) a. Milyen színű inges fegyenc-et keresnek?
 what colored shirted convict-ACC search-they
 'A convict with what shirt are they looking for?'
 b. *Piros. /*Piros-at.
 red / red-ACC
 c. Piros színű inges fegyenc-et.
 red colored shirted convict-ACC
 'A convict with a red shirt.'
 d. Piros színű inges pro -et.
 red colored shirted -ACC
 'One with a red shirt.'

The fact that the answer must be headed by *fegyenc* 'convict' (or by a *pro* co-indexed with *fegyenc* in the preceding question) indicates that interrogation operates over convicts and not colors.

In another semantic approach—elaborated, among others, by von Stechow (1981, 1991), Jacobs (1983), von Stechow and Uhmman (1986), and Krifka (1991), (1992)—called the structured meaning approach, the focus feature of a constituent induces the partitioning of the semantic representation of the sentence into a focus part and a background/presupposition part. For instance, the focus structure in (18a) determines the structured meaning (18b):

- (18) a. [_S John [_{VP} introduced [_F Bill] to Sue]]
 b. < λx [introduced John x to Sue], Bill>

(18b) expresses that the individual who has the property of having been introduced to Sue by John is Bill.

As has been observed, the interpretation of a large set of operators (*only, even, must, not, always*, the generic operator, or the superlative) is sensitive to the focus-background structure of its sentence: the background is understood as the restrictor of the operator, and the focus is understood as its nuclear scope. Consider the logical paraphrase of (19), involving the universal adverbial quantifier *always*:

- (19) John always goes on vacation with MARY.
 always c , $\exists x$ (John goes on vacation with x in c),
 John goes on vacation with Mary

In (19) *always* quantifies over cases in which there is someone who John goes on vacation with, and the sentence means that in each such case it is Mary that John goes on vacation with.

The 'structured meaning' approach to focus has led to a non-quantificational, relational view of focus. According to this, the focused constituent itself is never an operator; it always represents the nuclear scope of an operator. If the sentence contains no overt operator (other than the focus), an invisible illocutionary operator is assumed. When the focus appears to have scope over an operator, for instance, over a universal quantifier, as in *JOHN met everybody*, it is, in fact, the illocutionary operator that has wide scope.

The relational view of focus has been elaborated on the basis of languages not containing a structural focus position. For speakers of languages that have a particular A-bar position for focus, this view is somewhat counterintuitive; in such languages, for example in Hungarian, the focus slot is syntactically clearly one among the operator positions. In any case, it is necessary that the empirical material on which the various semantic analyses of focus are based be derived from the language type discussed in this volume, as well.

The 'pragmatic' view of focus, claiming that the focus, as well as the topic, are not part of the truth-conditional, logico-semantic interpretation of the sentence, but merely express the informational value of its logico-semantic content, has also lived on; it has been formulated in an explicit, partially formalized way, for example, in the work of Vallduví (1992). Vallduví assumes that the interpretive component of grammar also contains a special, non-truth-conditional module of sentence interpretation, called information packaging. The input to information packaging is the so-called information structure of the sentence, which is non-distinct from its S-structure in discourse configurational languages. (In the case of languages like English, the mapping of S-structure on information structure is more complex; it also takes the structure of pitch accents into consideration.) Vallduví describes the informational role of focus in the framework of File Change Semantics: wide focus is the part of the sentence that is to be entered into the hearer's knowledge store. A narrow focus may involve a more complex operation; for instance, the replacement of an entity in a previously stored proposition (see also Huck and Na (1990)).

As for its formal properties, the focus operator is often morphologically marked; it bears a focus marker in Kikuyu (see (Horvath (this volume))), Somali, and Quetchua, as well as in Haida (Enrico (1986), and in preparation), and there are various optional focus markers in Old Romance, too. Korean only marks contrastive focus morphologically. In Somali, every matrix clause obligatorily has a focus. In Somali and Quetchua, and certain Haida dialects, the focus is restricted to matrix—or tensed—clauses. In Greek, there is a somewhat different restriction: the focus can also be located in an embedded clause (provided the matrix clause has none), but it must have matrix scope. More than one focus

per clause seems to be impossible in every language except in Korean—consequently most studies place the focus in a specifier position. In Korean multiple focus constructions analyzed by Choe, one focus moves to [Spec, FP], and the rest are adjoined to it. In Somali, an object focus—unlike a subject focus—is associated with a resumptive pronoun.

In most of the languages known to have a structural focus position, for instance in Aghem, most Chadic languages (Horvath (this volume)), in Basque, Old Romance, Hungarian, Greek, Korean (in the construction studied by Jo), Quetchua, and Bulgarian (Rudin (1986)), the focus is located next to the inflected V. The exceptions include Catalan and Haida (Enrico (in preparation)), where the possibility of non-adjacency between the focus and the V may be a consequence of free scrambling in the post-focus sentence part, Kikuyu (Horvath (this volume)), where the focus is next to the complementizer, Somali, and the Korean focus construction described by Choe. In Finnish, Greek, and Korean, the focus constituent can also remain optionally in situ.

The close surface relationship between the focus and the V led Horvath (1981, 1986) to the conclusion that the source of the [+F(ocus)] feature that focused constituents assume as a result of Focus Movement is the V. She claimed that in languages with structural focus the feature [+F] is part of the feature matrix of the V, and can be assigned by the V to a constituent that it governs and is adjacent to, that is, if the general conditions of feature assignment are observed. The focus parameter of Universal Grammar also provides an alternative option of association with the feature [+F]: languages can choose to associate [+F] freely with any category. This is what happens in languages with focus-in-situ, for instance, in English.

Tuller (1992) noticed that in certain Chadic languages, for instance, in Tangale, Ngizim, or Kanakuru, the focus can not only occupy a verb-adjacent position; alternatively it can also show up in a peripheral position. She concluded that the source of the [+F] feature is inflection—provided it is verbal, that is, if V-to-Infl movement has taken place. Then Infl can assign [+F] to a constituent adjoined to VP, which it governs and to which it is adjacent, or, alternatively, Infl can move up to C in LF, and can assign [+F] to the constituent in [Spec, CP] under spec-head agreement.

In an approach becoming more and more wide-spread, the focus operator is associated with a functional projection of its own; it occupies the specifier position of the projection of a focus head. The first proposals along these lines appeared in Uriagereka (1988) (in whose work, including Uriagereka (1992) and (forthcoming a and b), F is a head associated not only with focus, but with any operator expressing a point of view), in Choe (1989), and in Laka (1990) (in whose theory IP is a complement to a sigma head including negation and emphatic affirmation). An influential version of this theory was put forth in Brody (1990). Brody (1990) claims—following Horvath (1981, 1986)—that focus interpretation is due to a [+F(ocus)] feature assigned by the V. The V is raised into F, the head position of a functional focus projection, where it assigns its [+F] feature to the constituent moved into [Spec, FP]. V movement into F is forced

by part A of the following Focus Criterion, analogous to the WH-Criterion proposed by May (1985) and Rizzi (1990):

- (20) A. The Spec of an FP must contain a [+F]-phrase.
B. All [+F] phrases must be in an FP.

The focus projection is claimed to be present both in the sentence structure of languages with structural focus, and in that of languages with focus-in-situ; the difference between the two types is derived from the parametrization of the level of representation at which the Focus Criterion applies. If in a language condition A of the Focus Criterion must be observed at S-structure, the language will have structural focus; if it is only checked at LF, the language will have focus-in-situ.

Horvath (this volume) gives a criticism of the view that the 'structural focus' versus 'focus-in-situ' variation derives from a parametric variation in the level of application of the Focus Criterion, showing on the basis of comparative evidence (taken, in part, from Tuller (1992)) that it cannot account for the range of variation of S-structure focus positions attested *within* the set of designated Focus languages. She argues that under the minimal assumption that there is a syntactic feature [+F] which constituents must receive to be interpreted as identificational focus, the observed range of S-structure variation with respect to focus position falls out of independently motivated parameters of feature assignment. These parameters allow the following modes of association with the feature [+F]: [+F] can be assigned by a functional head, the category of which (typically Infl or C) may vary across languages. The feature [+F] can be transmitted by Infl/C into a position governed by Infl/C, or it can be assigned by Infl/C to [Spec, IP/CP] under spec-head agreement. In languages with focus-in-situ no functional head carries the feature [+F]; association with [+F] is free. Horvath predicts, and demonstrates, a full parallelism between the kinds of variation observable with respect to case assignment, and [+F] assignment across languages.

In this volume, Choe, Ortiz de Urbina, Tsimpli, Uriagereka, and Muyskens present focus theories involving a separate functional focus projection.

In Choe's approach, the feature [+F] is assigned in D-structure, and it can be assigned (at least in Korean) to more than one constituent per clause. [+F] constituents are licensed if they agree with a [+F] head; therefore, they must move to [Spec, FP], or be adjoined to it—either in syntax or in LF.

The feature [+F] is carried by Infl in the theory of Ortiz de Urbina (this volume), too. Just as interrogative clauses license a [+WH] Infl, emphatic clauses license a [+F] Infl. The Operator Criterion (a more general version of the WH-Criterion) requires that an operator occupying scope position be in a spec-head relation with a head marked for the relevant feature. Since in Basque there is V Movement to Infl, and (V+Infl) Movement to C, the focus lands in [Spec, CP].

Motivated by the theory of parametrization of Chomsky (1991), in which parameters are associated with functional categories rather than levels of representation, Tsimpli (this volume) modifies Brody's theory (1990) along the following lines. Languages with obligatory Focus Movement, like Hungarian, languages

with optional Focus Movement, like Greek, and presumably also languages with no syntactic Focus Movement, like English, all have an F projection in their sentence structures; they only differ in the value of the F feature carried by the head of their FP projection. In Hungarian the head of FP is always marked [+F]; in English, it is presumably always [-F], whereas in Greek it can have either value. In this theory, the [+F] feature is freely assigned in D-structure in all language types. The overt Focus Movement of a constituent marked [+F] is triggered in case the head of FP is also marked [+F]—by a Focus Criterion operative at S-structure, which requires that a [+F] head be in spec-head agreement with a [+F] operator.

The theories of [+F] assignment surveyed above can capture the process of Focusing in most of the languages described in the volume: in Chadic, Somali, Basque, Old Romance, Hungarian, Greek, and Quetchua, and they can also account for Haida (Enrico (in preparation)), Bulgarian (Rudin (1986)), or the Mayan languages (Aissen (1991)). In these languages, the constituent functioning as a focus operator occupies a designated A' position, where it c-commands its scope.

In three of the languages examined: in Finnish, Catalan, and in a particular construction in Korean, something else is going on.

Finnish actually can be seen as a parametric variant of the canonical type of discourse-configurational languages with property B. In Finnish, as shown by Vilkuna, focus constituents can either be moved into a designated A' position: [Spec, CP], or they can be left in situ. This A' position, however, is associated not with the feature [+F], but with the feature [+Contrastive]; hence it is open not only for a focus but also for a contrastive topic. If functional heads can, indeed, convey such affective features as [+WH] or [+F], then it is plausible to assume that the set of features that can be associated with C universally also includes [+Contrastive]. In Finnish, the [+Contrastive] position ([Spec, CP]) is outside the topic slot ([Spec, IP]). This property may be related to the fact that the Contrastive position can also host a topicalized constituent.

Catalan seems to represent a radically different case. As Vallduví argues, Focusing in Catalan does not involve any focus movement or any [+F] assignment. In the Catalan sentence, the non-focus constituents are moved, and the focus constituents are left in situ. Everything that is not new information is dislocated from the IP. If a single constituent remains, it is to be interpreted as narrow focus, i.e., as a focus operator.

The Korean construction that Jo (this volume) describes, while different from the canonical case of Focusing, does not represent an isolated pattern. In the Korean construction in question, as well as in Turkish, Armenian (see Comrie (1984)), or Hungarian, the focus is in complementary distribution with the constituent that is closest to the V in the VP. This constituent is non-referential; it has no theta-role; it forms a complex predicate with the V. In Korean and Hungarian, even its syntactic movement possibilities are limited; that is, it displays several properties typical of incorporated constituents. Jo argues that the position of this constituent, a V-adjacent, V'-dominated A' position, when vacated, is allowed by principles of Universal Grammar to host an operator. In Hungarian, where the incorporated constituent is at the left edge of the VP, alternative analy-

ses are also possible (see Horvath and É. Kiss in this volume), for instance, the focus and the incorporated constituent can be assigned to separate, adjacent positions (one outside the VP, the other inside the VP), and the simultaneous filling of the two positions can be blocked by some principle or filter. In languages where this non-argument position is nested in the VP, the possibility of alternative explanations is less obvious. In addition to Korean, Aghem, in which the focus position is between the V and the direct object, might also represent this type. In the focus construction described by Jo the focus operator is not in scope position, so at LF it must undergo Operator Movement.

Jo's theory raises an interesting theoretical possibility. Namely, Focusing and incorporation share important properties across languages. The adjacency between the focus and the inflected V is stricter in most languages than any version of feature assignment—whether under government, or under spec-head agreement—would justify. It appears that the strictness of this adjacency requirement is only paralleled by the adjacency condition of incorporation. It is also remarkable that both Focusing and incorporation are typically licensed by the same category: the inflected V. Focus Movement involves incorporation on the phonological level in many languages; the focused constituent does not simply assume heavy stress corresponding to its semantic weight; it also deletes the stress of the adjacent inflected V; that is, the focus and the V form a single phonological word. The question that arises is naturally whether the similarities between Focusing and incorporation are accidental, or Focusing is incorporation. If the feature [+F] is inherently associated with the (inflected) V, then it is not implausible to assume that feature sharing can also take place via incorporation.

It is generally believed, and in Horvath (1986) it is also stated in the form of a universal principle, that interrogative WH-phrases share the syntactic behavior of foci. This assumption is basically confirmed in canonical discourse-configurational languages with property B, in which the focus occupies a scope position. Interrogative WH-phrases must land in the focus position in Somali, Chadic, Aghem, Basque, Hungarian, Haida, Omaha, Quetchua, Korean, and in Greek main clauses. WH-phrases and foci give the illusion of sharing the same landing site in Bulgarian, too, even though, as Rudin (1986) argues, WH-phrases in fact occupy [Spec, CP], while foci are adjoined to IP. WH-phrases, whether interrogative or relative, land in the position associated with the feature [+Contrastive] in Finnish.

In Catalan, where the focus operator does not occupy a scope position, WH-phrases nevertheless do undergo WH-Movement to scope position.

Summarizing the information provided by the papers of this volume on type B discourse configurationality: in languages with property B the focus operator occupies—or, at least, may occupy—an A-bar position at S-Structure. It typically occupies an invariant A-bar position; but this is not necessarily so (cf. Tangale, Ngizim). The exact location of the landing site of Focus Movement is subject to parametric variation: it can be [Spec, VP], [Spec, IP], [Spec, FP], [Spec, CP], a VP-adjoined position, an FP-adjoined position, or even an A-bar position under V.

A focus operator moved into VP-external position c-commands its scope; a focus operator occupying an A-bar position under V', on the other hand, obviously does not c-command it; it needs further LF-movement. In some languages, the focus operator is required to have matrix scope; in others, it can also have embedded scope. The presence of a focus operator is typically optional, but it may also be an obligatory element of sentence structure.

In the canonical type of languages with property B, a constituent assumes the feature [+F] by movement into the designated A-bar position. The source, or, at least, licenser, of the feature [+F] is presumably the head I, V+I, F, or C. The [+F] feature of a focused phrase is assigned—or licensed—under spec-head agreement, or it is assigned under government and adjacency. The feature [+F] usually has no morphological reality (but it can also be spelled out in the form of an inflectional morpheme, as is the case in Berber according to Tsimpli). The relevant feature can be, instead of [+Focus], [+Contrastive].

In languages displaying S-structure Focus Movement into scope position, interrogative WH-phrases share the landing site of foci. It still remains a question whether interrogative WH-phrases also share the feature [+F]—given that many languages allow more than one WH-phrase but only one focus per clause (Korean, on the other hand, allows the overt, syntactic movement of more than one focus but only a single WH-phrase per clause).

References

- Agouraki, G. (1990) "On the Projection of Maximal Categories: the Case of CP and FP in Modern Greek," *UCL Working Papers in Linguistics* 2, 183–200, University College London.
- Aissen, J. (1991) "Topic and Focus in Mayan," *Language* 68, 43–80.
- Awobuluyi, O. (1978) "Focus Constructions as Noun Phrases," *Linguistic Analysis* 4, 93–114.
- Brassai, S. (1860, 1863–65) "A magyar mondat," *Magyar Akadémiai Értesítő. A Nyelv-és Széptudományi Osztály Közlönye* 1, 179–399; 3, 3–128, 173–409.
- Brody, M. (1990) "Some Remarks on the Focus Field in Hungarian," *UCL Working Papers in Linguistics* 2, 201–226, University College London.
- Calabrese, A. (1987) "Focus Structure in Berber: A Comparative Analysis with Italian," in M. Guerssel and K. Hale, eds., *Studies in Berber Syntax. Lexicon Project Working Papers 14*. Center for Cognitive Science, MIT, Cambridge, Massachusetts.
- Carlson, G. (1978) *Reference to Kinds in English*, Garland, New York.
- Choe, H. S. (1989) "Restructuring Parameters and Scrambling in Korean and Hungarian," in L. Maracz and P. Muysken, eds., *Configurationality*, Foris, Dordrecht.
- Chomsky, N. (1976) "Conditions on Rules of Grammar," *Linguistic Analysis* 2, 303–352.
- Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, N. (1986) *Barriers*, MIT Press, Cambridge, Massachusetts.
- Chomsky, N. (1991) "Some Notes on Economy of Derivation and Representation," in R. Freidin, ed., *Principles and Parameters in Comparative Grammar*, MIT Press, Cambridge, Massachusetts.

- Clements, G. N. (1984) "Binding Domains in Kikuyu," *Studies in the Linguistic Sciences* 14, 2, 37–57.
- Comrie, B. (1984) "Some Properties of Focus in Modern Eastern Armenian," *Annual of Armenian Linguistics* 5, 1–21.
- Diesing, M. (1992) *Indefinites*, MIT Press, Cambridge, Massachusetts.
- Eguzkizta, A. (1987) *Topics on the Syntax of Basque and Romance*, Indiana University Linguistics Club.
- England, N. (1991) "Changes in Basic Word Order in Mayan Languages," *International Journal of American Linguistics* 57, 446–486.
- Enrico, J. (1986) "Word Order, Focus, and Topic in Haida," *International Journal of American Linguistics* 52, 91–123.
- Enrico, J. (in preparation) *Haida Grammar*, unpublished manuscript, Queen Charlotte Islands Museum, Skidegate, British Columbia.
- Erguvanli, E. E. (1984) *The Function of Word Order in Turkish Grammar*, University of California Press, Berkeley.
- Farmer, A. K. (1980) *On the Interaction of Morphology and Syntax*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Gambhir, V. (1981) *Syntactic Restrictions and Discourse Functions of Word Order in Standard Hindi*, Doctoral dissertation, University of Pennsylvania.
- Givón, T. (1975) "Focus and the Scope of Assertion. Some Bantu Evidence," *Studies in African Linguistics* 6, 185–205.
- Hajičová, E. (1983) "Topic and Focus," *Theoretical Linguistics* 10, 268–276.
- Heyer, G. (1985) "Generic Descriptions, Default Reasoning, and Typicality," *Theoretical Linguistics* 12, 33–72.
- Horn, L. (1981) "Exhaustiveness and the Semantics of Clefts," *Proceedings of the 11th Annual Meeting of NELS*, MIT, Cambridge, Massachusetts, 125–142.
- Horvath, J. (1976) "Focus in Hungarian and the X-bar Notation," *Linguistic Analysis* 2, 175–197.
- Horvath, J. (1981) *Aspects of Hungarian Syntax and the Theory of Grammar*. Doctoral dissertation, UCLA.
- Horvath, J. (1986) *FOCUS in the Theory of Grammar and the Syntax of Hungarian*, Foris, Dordrecht.
- Huck, G. J., and Y. Na (1990) "Extraposition and Focus," *Language* 66, 51–77.
- Jacobs, J. (1983) *Fokus und Skalen. Zur Syntax und Semantik von Gradpartikeln im Deutschen*. Niemeyer, Tübingen.
- Jo, M.-J. (1991) *Fixed Word Order and the Theory of the Pre-Verbal Focus Position in Korean*, Doctoral dissertation, University of Washington, Seattle, Washington.
- Kenesei, I. (1986) "On the Logic of Focus," in W. Abraham and S. de Meij, eds., *Topic, Focus and Configurationality*, John Benjamins, Amsterdam.
- Kenesei, I. (1993) "On the Syntax of Focus," unpublished manuscript, University of Delaware, Newark, and University of Szeged, Hungary.
- King, T. H. (1993) "VP Internal Subjects in Russian," paper presented on the 2nd workshop on Formal Approaches to Slavic Linguistics, MIT, Cambridge, Massachusetts, May 1993.
- É. Kiss, K. (1977) "Topic and Focus in Hungarian Syntax," *Montreal Working Papers in Linguistics* 8, 1–42.
- É. Kiss, K. (1981) "Structural Relations in Hungarian, a 'Free' Word Order Language," *Linguistic Inquiry* 12, 185–215.
- É. Kiss, K. (1987) *Configurationality in Hungarian*, Reidel, Dordrecht.

- É. Kiss (1991a) "Logical Structure in Syntactic Structure: the Case of Hungarian," in C.-T. J. Huang and R. May, eds., *Logical Structure and Linguistic Structure*, Kluwer, Dordrecht.
- É. Kiss (1991b) "An Argument for Movement," in H. Haider and K. Netter, eds., *Representation and Derivation in the Theory of Grammar*, Kluwer, Dordrecht.
- É. Kiss, K. (1993) "Genericity, Predication, and Focus," unpublished manuscript, Linguistic Institute of the Hungarian Academy of Sciences, Budapest.
- Koopman, H., and D. Sportiche (1990) "Subjects," unpublished manuscript, UCLA.
- Krifka, M. (1991) "A Compositional Semantics for Multiple Focus Constructions," *Proceedings of Semantics and Linguistic Theory (SALT) I, Cornell Working Papers II*.
- Krifka, M. (1992) "A Framework for Focus-Sensitive Quantification," in C. Barker and D. Dowty, eds., *SALT II. Proceedings from the Second Conference on Semantics and Linguistic Theory. Working Papers in Linguistics 40*, Ohio State University, Columbus, 215-236.
- Kuroda, S.-Y. (1972-73) "The Categorical and the Thetic Judgement," *Foundations of Language 9*, 153-185.
- Laka, I. (1990) *Negation in Syntax. On the Nature of Functional Categories and Projections*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Lasnik, H., and M. Saito (1992) *Move Alpha*, MIT Press, Cambridge, Massachusetts.
- Lecarme, J. (1992) "Focus en Somali: syntax et interpretation," *Linguistique Africaine 7*.
- Marty, A. (1918) *Gesammelte Schriften*. II. Band, 1. Abteilung, Max Niemeyer, Halle.
- Marty, A. (1965) *Psyche und Sprachstruktur*, Verlag A. Francke, Bern.
- May, R. (1985) *Logical Form: Its Structure and Derivation*, MIT Press, Cambridge, Massachusetts.
- Ortiz de Urbina, J. (1991) *Parameters in the Grammar of Basque*, Foris, Dordrecht.
- Ouhalla, J. (1991) "Focussing in Berber and Circassian and the V2 Phenomenon," unpublished manuscript, University College London.
- Pesetsky, D. (1989) "Language Particular Processes and the Earliness Principle," unpublished manuscript, MIT, Cambridge, Massachusetts.
- Primus, B. (1992) "The Role of Grammatical Relations in Word Order Universals," *EUROTYP Working Papers*, ESF, Strasbourg.
- Rebuschi, G. (1989) "Is there a VP in Basque?," in L. Maracz and P. Muysken, eds., *Configurationality. The Typology of Asymmetries*, 85-116, Foris, Dordrecht.
- Rijk, R.P.G. de (1978) "Topic Fronting, Focus Positioning and the Nature of the Verb Phrase in Basque," in F. Jansen, ed., *Studies on Fronting*, Peter de Ridder Press, Lisse.
- Rizzi, L. (1991) *Relativized Minimality*, MIT Press, Cambridge, Massachusetts.
- Rochemont, M. (1978) *A Theory of Stylistic Rules in English*, Garland Press, New York.
- Rooth, M. (1985) *Association with Focus*, Doctoral dissertation, University of Massachusetts, Amherst.
- Rothstein, S. (1983) *The Syntactic Forms of Predication*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Rudin, C. (1986) *Aspects of Bulgarian Syntax: Complementizers and Wh Constructions*, Slavica, Columbus.
- Rudin, C. (1992) "Topic and Focus in Bulgarian," to appear in *Acta Linguistica Academiae Scientiarum Hungaricae*.
- Schachter, P. (1973) "Focus and Relativization," *Language 49*, 19-46.
- Sgall, P., ed. (1984) *Contributions to Functional Syntax, Semantics, and Language Comprehension*, Academia, Praha.

- Sgall, P., and E. Hajičová (1973) *Topic, Focus, and Generative Semantics*, Scriptor Verlag, Kronberg Taunus.
- Stechow, A. von (1981) "Topic, Focus, and Relevance," in W. Klein and W. Levelt, eds., *Crossing the Boundaries in Linguistics*, Reidel, Dordrecht.
- Stechow, A. von (1991) "Current Issues in the Theory of Focus," in A. von Stechow and D. Wunderlich, eds., *Semantics. An International Handbook of Contemporary Research*, De Gruyter, Berlin.
- Stechow, A. von, and S. Uhmann (1986) "Some Remarks on Focus Projection," in W. Abraham and S. de Meij, eds., *Topic, Focus, and Configurationality*, John Benjamins, Amsterdam.
- Stowell, T. (1981) *Origins of Phrase Structure*, Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Szabolcsi, A. (1981) "The Semantics of Topic-Focus Articulation," in J. Groenendijk et al., eds., *Formal Methods in the Study of Language 2*, 503-540, Mathematisch Centrum, Amsterdam.
- Szabolcsi, A. (1983) "Focussing Properties, or the Trap of First Order," *Theoretical Linguistics 10*, 125-145.
- Szabolcsi, A. (1992) "Weak Islands and Scope," in C. Barker and D. Dowty, eds., *SALT II. Proceedings from the Second Conference on Semantics and Linguistic Theory, Working Papers in Linguistics 40*, Ohio State University, Columbus, 407-436.
- Tsimpli, I. M. (1990) "The Clause Structure and Word Order of Modern Greek," *UCL Working Papers in Linguistics 2*, 226-258, University College London.
- Tuller, L. (1992) "The Syntax of Postverbal Focus Constructions in Chadic," *Natural Language and Linguistic Theory 10*, 303-334.
- Ulrich, Miorita (1985) *Thetisch und kategorisch*, Narr, Tübingen.
- Uriagereka, J. (1988) *On Government*, Doctoral dissertation, University of Connecticut, Storrs.
- Uriagereka, J. (1992) "The Syntax of Movement in Basque," in J. Lakarra and J. Ortiz de Urbina, eds., *Syntactic Theory and Basque Syntax*, ASJU, Donostia.
- Uriagereka, J. (forthcoming a) "Aspects of Clitic Placement in Western Romance," *Linguistic Inquiry*.
- Uriagereka, J. (forthcoming b) "Government Restrictions and Basque Movements," *Natural Language and Linguistic Theory*.
- Vallduví, E. (1992) *The Informational Component*, Garland, New York.
- Vallduví, E. (1993) "Catalan as VOS: Evidence from Information Packaging," in W. J. Ashby et al., eds., *Linguistic Perspectives in the Romance Languages*, John Benjamins, Amsterdam.
- Vilkuna, M. (1989) *Free Word Order in Finnish*, Suomalaisen Kirjallisuuden Seura, Helsinki.
- Wallace, W. D. (1985) *Subjects and Subjecthood in Nepali: An Analysis of Nepali Clause Structure and Its Challenges to Relational Grammar and Government and Binding*, Doctoral dissertation, University of Illinois, Urbana-Champaign.
- Watters, J. (1979) "Focus in Aghem," in L. Hyman, ed., *Aghem Grammatical Structure, Southern California Occasional Papers in Linguistics 7*.
- Williams, E. (1980) "Predication," *Linguistic Inquiry 11*, 203-238.