INTRODUCTION

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[1] FROM SPRIK TO OSLA

The present thematic issue comprises a selection of nine refereed and revised papers, seven of which were presented at the SPRIK conference *Explicit versus Implicit Information in Text. Information Structure across Languages* in Oslo, 8-10 June 2006.[1] The bipartite title of the conference reflects the main objectives of the organizing research project SPRIK[2] ('SPRåk I Kontrast / Languages in Contrast'), which is directed towards text-oriented, corpus-based contrastive studies (Norwegian, English, French, German) of the interplay between explicit (linguistically encoded) information and implicit information, on the one hand, and the interaction of local, sentence-internal information structure and more global information structuring and weighting, including so-called discourse structure, on the other. Nine explicitly contrastive and partly translation-oriented papers presented at the conference were selected for a special issue of the journal *Languages in Contrast* (Behrens et al. 2007). The present issue of *OSLa* is more theoretically oriented, focussing on the system(s) or procedures that can account for the structure of complex discourse. While theoretical studies and empirical studies sometimes compete in the scientific community, and researchers change from a preoccupation with theory to a preoccupation with data, the majority of the papers in the present publication combine data and theory very closely. With a few exceptions the papers are monolingually oriented, but taken together they cover a variety of object languages: English, German, Norwegian, French, Hungarian, Turkish, Japanese, and Mongolian.

The contributions comprise

(i) Three keynote papers by Regine ECKARDT, Kjell Johan SÆBØ and Bonnie WEB-BER, and an 'unofficial' keynote paper by Henk ZEEVAT. The papers demonstrate or argue for somewhat different theoretical approaches to the interaction of lexically encoded meaning, contextual information, information

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[1] See http://www.hf.uio.no/forskningsprosjekter/sprik/english/activities/conf.html
[2] See http://www.hf.uio.no/forskningsprosjekter/sprik/. The SPRIK project at the Faculty of Humanitites, University of Oslo, was funded by the Norwegian Research Council (NFR) under project number 158447/530 (2003-2008).

structure and/or discourse structure: Formal (Dynamic) Semantics combined with Focus Theory à la Rooth (Eckardt, Sæbø), Optimality Theoretic Pragmatics (Zeevat, Sæbø), and Discourse-level Lexicalized Tree Adjoining Grammar (D-LTAG) (Webber).

(ii) Five case studies that are thematically, theoretically and/or methodologically related to one or more of the keynote papers listed in (i). These case studies also widen the perspective somewhat: one paper presenting a unified context-dependent semantics for the conjunct adverb *doch* (Elena KARA-GJOSOVA); one concerned with the interplay between connectives/particles and discourse/rhetorical relations (Myriam BRAS et al.,); one paper addressing the division of labor between syntax, semantics and pragmatics as far as the licensing and interpretation of implicit objects is concerned (Gergely PETHŐ and Eva KARDOS); one relevance-theoretically oriented paper demonstrating lexical relations which form a very important basis for questioning the explicature-implicature distinction (Thorstein FRETHEIM); and one paper outlining a model for non-sentential utterance production (Shinji IDO).

The general research questions addressed in this volume are highly relevant in the present linguistic debate, centering on interfaces between different levels of description. Where in our account of the relation between language and meaning do the constraints on interpretation belong? In accounting for the meaning of texts, how much and what kind of meaning do we attach to the linguistic signals themselves? What do these signals encode that contributes to the construction and resolution of context-dependent meaning? To put the questions differently, how much do language users base their interpretations on world knowledge and general pragmatic principles, such as for example the Relevance Theoretic principle of looking for optimal relevance/cognitive effects at the lowest cost, or the Optimality Theoretic instruction to assess the relative weight of a series of basic pragmatic principles to arrive at the best interpretation? Pure pragmatic reasoning is clearly necessary for the language user to infer intended meanings, but while some adherents of pragmatics tend to attach most of the interpretation procedures to general pragmatic principles (see the critical discussion in Pethő and Kardos in the present volume), several of the contributions in the present volume demonstrate the essential role of linguistic, text-structuring clues in a compositional system of arriving at the full meaning of complex discourse.

[2]   STRUCTURING INFORMATION

This book deals with the challenges of accounting for the systems that direct the retrieval of contextual information in the interpretation of coherent discourse. Discourse – written text or a sequence of spoken utterances – is coherent when

a single utterance or expression (sentential or non-sentential) is not only interpreted at face value, by and of itself, but makes sense as a meaningful contribution to the linguistic and non-linguistic context it appears in.

At one level this means that we look for the factors that determine the expression's contribution to what the discourse refers to. At another level we are after the factors that determine its illocution, i.e. what the expression may be meant to do in the context – whether to add, challenge or modify information, by way of representing an opinion, underlining a viewpoint, creating a contrast etc. For both levels of interpretation, discourse must be structured. The question for the linguist is not only what that structure is but what the factors are that determine the structures.

[3]   EXPLICIT AND IMPLICIT INFORMATION IN DISCOURSE
        INTERPRETATION

When we say something, we often take it for granted that what we mean by what we say will not only be available to the listener but that what the listener takes us to mean on the basis of what we say is in fact what we mean. That is, we expect the linguistic code we have made use of to be sufficient to express our intended meaning. However, as linguists, we know that a lot of what a speaker communicates by what s/he says is not explicitly stated. Well-known examples are ellipsis, or omitted words or phrases that are somehow recoverable from general rules of syntax, such as the implied object argument in the second conjunct in (1).

(1)   The king picked up the wine and drank.

An utterance of (1) will be understood by all reasonable listeners to mean that the king drank (at least some of) the wine that is referred to in the first conjunct. Although this is only a piece of IMPLICIT information given by the utterance, most linguists agree that it makes up part of the truth conditions (semantic content) of the utterance.

The same listeners will also agree that the utterance in (1) implies that the king picked up a glass or some other container that can hold wine and that is meant for drinking, and that the wine he drank was in that glass/bowl or bottle/flask. This is also information that is not stated explicitly. Yet the different pieces of implicit information retrieved from the utterance of (1), one might argue, are retrieved on the basis of different interpretation principles: First of all, the object of the verb *drink* may be postulated as an underspecified argument in the syntactic structure of the second conjunct, determined by the selection restrictions for the verb. Simplifying somewhat, we may say that the underspecified argument lacks intrinsic reference and is therefore assumed to be an anaphor, whose reference must be resolved in context. Although everyone would agree

that the king drank (some of) the wine, not all linguists would agree that the above description of how that meaning comes about is a correct description. The pragmatic principle guiding the resolution of the anaphor, furthermore, is also a matter of debate: on a linguistically based view, a principle of non-intervening events may be stated for events expressed in a VP conjunction, which means that the implied object of the drinking event should find its antecedent in the first conjunct (Discourse RepresentationTheoretic (DRT) approach). On another view the anaphor is resolved as the result of a general search for relevance (the Relevance Theoretic (RT) approach).

The other information is retrieved on the basis of the listeners' general knowledge about wine containers and the impossibility of picking up a liquid which is not in a container of some sort. Typically, the exact reference of this kind of knowledge-based information remains vague or loose without further contextual clues or more specific knowledge about the actual state of affairs. The restricted context given in (1) contributes to narrowing the reference of "wine" down to "wine in some container". A wider context might narrow it down even further.

The distinction between the types of implicit information in (1) is generally stated as a difference between linguistically motivated information and general world knowledge as a basis for inferences drawn as to the meaning of an utterance. This distinction is often hard to draw, and different theories of language draw the line differently. The problem of accounting for systems of "filling in" material "missing" in the expression to arrive at the underlying proposition is of central concern to linguistic theory.

Grice (1975) made the important distinction between information that makes up part of the truth conditions of an utterance and "cancellable" meanings drawn from the utterance, which the speaker cannot be held responsible for, and correlated the division with a distinction between what is said and what is implicated. Levinson (2000) explicates this view in saying that the "said" can be taken to be truth-conditional content, the output of semantic interpretation (the proposition expressed), while the "implicated" can be taken to include all the processes of pragmatic inference.

If this is the distinction to be drawn, then information inferred from the utterance should not make up part of the truth conditions of the utterance, by definition.

Such a view, according to a broad range of linguists and language philosophers today, is clearly mistaken. The question, therefore, is: What can be said to be 'said' on the basis of an utterance or piece of discourse?

Answers to this question are sought in various ways, as was illustrated by our analysis of (1).

The first problem is to determine the grounds for which an object argument should be postulated in the syntax of the utterance. This is a theoretical matter.

The plausibility of the assumption that there is such an argument is determined on the basis of its explanatory power. Without it one would have to postulate two verbs *drink* – one transitive, the other intransitive; and one would have to account for the relationship between the two. With an implicit object, on the other hand, one would need just one lexical verb *drink* which is the same whether it is used with or without an overt object. Without an overt object, an object position would nevertheless be generated in the syntax, and a "zero" anaphor would be mapped onto the syntactic position. The result is a "free" referent in the semantic representation, i.e. a referent which needs to find its descriptive content in the larger context.

Since the meaning of the utterance, it would be agreed, is in fact that the king drank (some of) the wine he picked up, and nothing else, the suggested analysis of a free, contextually resolved anaphor is highly plausible.

An alternative explanation, in which pragmatic principles play a stronger role, is that there is no level of linguistic representation of (1) in which there is an empty constituent slot. On this view, held by adherents to more radical pragmatics, there is no linguistic entity here at all. The material needed to complete the proposition is supplied on purely pragmatic grounds. The RT approach, for example, aims to account for the process of recovering unarticulated material as a process of "free enrichment", i.e. the enriching process is "free" from linguistic control (Carston 2004). This does not mean, though, that the enrichment does not contribute to the truth conditions of the utterance. From a RT point of view, pragmatic processes are not only involved in computing implicatures in a Gricean sense, they are necessary ingredients in working out the truth conditions of utterances.

[4]   IMPLICIT EXPLICATURES?

The enrichment processes taking place in the interpretation of (1) would count as "explicatures" in the RT framework. An explicature is "an ostensively communicated assumption which is inferentially developed from one of the incomplete conceptual representations (logical forms) encoded by the utterance" (Carston 2002, 377).

Explicatures are thus distinguished from implicatures in that the former contribute to the truth-conditions of the utterance, even though the meaning is inferentially arrived at and not linguistically encoded. The term "explicature" has led to some confusion in the linguistic debate, since what is inferred information is based on what is "implicit" and not "explicit", and "what is explicit" is confused with "what is explicated". Bach (1994) uses the term "impliciture" for a very similar concept:

> In implicature one says and communicates one thing and thereby

Author	Semantic representa-tion	Deictic reference resolution	Minimal proposition	Enriched proposi-tion	Additional propositions
Grice 1989	"What is said"			"Implicature"	
Sperber & Wilson/ Carston RT	Semantics	"Explicature"			"Implicature"
Bach 1994	"What is said"		"Implicature"		"Implicature"
Levinson 1988	"What is said"				
	"The coded"	"Implicature"			

TABLE. 1: Overview of pragmatics according to Levinson

> communicates something else in addition. Implicture, however, is
> a matter of saying something but communicating something else in-
> stead, something closely related to what is said [....]. Part of what is
> communicated is only implicit in what is explicitly expressed, either
> because the utterance is semantically underdetermined and comple-
> tion is required, or because what is being communicated is an ex-
> panded version of the proposition expressed. (Bach 1994, 126)

Bach includes ambiguity resolution and anaphor resolution as part of what is said, and leaves implicture to involve expansion and specification of indeterminacies, while RT includes all of these phenomena under explicature. In his paper "Implicture vs. explicature: What's the difference?" Bach (2006) compares his own concept of implicture with the RT explicature, stating:

> We agree that speakers can communicate things that are neither fully deter-
> mined by the semantics of the uttered sentence nor merely conversationally im-
> plicated. We may not agree on what this involves or how it is accomplished, and
> we may disagree on what constitutes sentence semantics, but clearly we agree
> that there is an intermediate phenomenon. Bach (2006)

Levinson (2000, 195) gives a nice overview of the different positions in the pragmatics literature, relevant aspects of which are given in table 1:

> It is not our intention here to make a case for one or the other, but the termi-
> nological discussion referred to is another indication that the topic of this book
> is highly motivated in the current debate: The explicit/implicit dimension of lin-
> guistic analysis is far from solved and the present volume contributes to further-
> ing the discussion.

In the present volume FRETHEIM argues that there are serious problems with Robyn Carston's (1988) attempt to clarify the distinction between explicatures and implicatures, thus keeping the debate alive and bringing it a step forward by

arguing for why the RT approach does not hinge on this distinction. Pethő and Kardos dismiss the RT approach to the interpretation of implicit arguments like the missing object in (1) above, and takes a syntactic view. They demonstrate that verbs differ not only as to whether they allow the omission of arguments, but that the conditions for argument omission differ across languages, pointing against free enrichment. Instead they propose a two-stage model for the licensing of implicit arguments.

Both contributions suggest novel perspectives on the interaction between syntax, semantics and pragmatics in the account of linguistically based meaning.

Ido takes a new perspective on the analysis of non-sentential utterances. Such sentence fragments have often been analyzed as elliptical sentences in the sense of having an underlying sentence structure. Ido argues for a model of such fragments that makes do with a minimum of syntax, yet assigns them full propositional content.

[5] "explicit implicature": explicit phenomena that do not contribute to the truth-conditions?

The explicit/implicit dimension in discourse structure is further complicated by the fact that certain explicit markers of information do not seem to contribute to the truth conditions of the sentences they appear in, but are explicit means to express non-truth conditional meaning: "While 'what is said' is largely determined by conventional (encoded) meaning, it is not the case that all encoded meaning goes into determining 'what is said'." (Carston 2002, 107)

What Carston has in mind are conventional implicatures. The cases Grice (1975) refers to are connectives such as *moreover*, *but* and *therefore*, later (Grice 1989) also includes other non-truth-conditional discourse connecting items such as *on the other hand* and *so*. Although they are clearly triggers for implicit information, connectives are nonetheless explicit markers of cohesive ties in discourse, and have become a central issue in the semantics/pragmatics debate, not least due to Diane Blakemore's much renowned discussion of them in the RT literature (Blakemore 1987), in which they are taken to denote "procedural" meaning, defined as meaning which "does not contribute a concept but rather provides a constraint on, or indication of, the way some aspect of pragmatic inference should proceed" (Carston 2002, 379). The "procedural meaning" is investigated from different theoretical stands as applied to different connectives and discourse particles. One problem is that although the claim that connectives constrain interpretation procedures seems well founded, it also seems that the contexts may influence the interpretation of the connective. This influence may in fact be so strong that it pushes the interpretation towards or even beyond the (fuzzy) borders of the semantic domain covered by the connective (Fabricius-Hansen and Behrens 2001; Fabricius-Hansen 2005). The complicated interplay between what connec-

tives allow and their contexts demand, although already given ample attention in the literature, is still a highly relevant issue in the ongoing discussion of the interactions between different levels of discourse interpretation; see Karagjosova's contribution to the present volume.

[6]   TYPES OF LINGUISTIC CLUES

Some of the problems of making explicit the ways in which discourse meanings can be accounted for are demonstrated by the discussion of (1) above: We have to specify implicit arguments, anaphora and the denotation of lexical items in context, and we have to untangle the ways in which the implicit is made part of the explicit (truth-conditional) meaning of the discourse. In view of the discussion of connectives above, it should also be clear that we still have to work out the particular function(s) of non-truth-conditional expressions. If we can specify the way the triggers work, we have important keys to an understanding of the division of labor between (compositional) semantic and pragmatic factors in discourse interpretation.

An important goal of linguistic research is to explain how the meaning of a discourse becomes more than a sum of the meaning of its overt elements, yet is constrained by its overt elements and (implicit) general pragmatic principles on interpretation. One of the great challenges is to operationalize this fine-grained interaction between explicit and implicit means of bringing out the meaning of utterances in context (written or spoken). Central to such operationalization is, no doubt, the alternative semantic view of focus.

[7]   INFORMATION STRUCTURE AND FOCUS THEORY

Authors seem to understand "information structure" differently – some take the term to refer to sentence internal TOPIC/COMMENT and FOCUS/BACKGROUND structure, partly delimited by stress/accent patterns.[3] Focus is a clue to identifying contextual information that constrains interpretation – and thus to establishing textual coherence. The concept has been made operational in the analysis of discourse through Mats Rooth's very influential alternative semantics (Rooth 1992).

Alternative semantic analyses of focus have helped us see how *not immediately observable units* of discourse operate in the structuring of textual information. Focus contributes to specifying (presupposed) information that is added to the explicitly stated information in inferential textual updating. This theory is convincingly argued for by KARAGJOSOVA in the present volume. She demonstrates how it is the syntactic position and accent pattern of the lexical item (conjunct adverb) *doch* that determine the factors that enter into its different interpretations, and how accentuation triggers the focus alternatives that are needed to relate the

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[3]   See Krifka (2007) for a useful overview.

meaning of the lexical item precisely to the context it appears in.

The RT notion of "procedural meaning" would apply to the meaning of German *doch*. The analysis in the present volume is an alternative analysis which demonstrates how a pragmatic inference procedure can be formalized if focus presupposition is taken seriously in the analysis of discourse connecting adverbs and particles.

The interpretive effect of focus presupposition is not limited to procedural meaning. This is demonstrated in SÆBØ's paper, which takes up what has traditionally been studied as the "double reflexive": the reflexive pronoun SIG (*sich, seg,...* etc, depending on the language) plus the intensifier SELF. Two interesting observations with respect to their use are accounted for. On the one hand the SELF is separated from SIG and is assigned the meaning of an intensifier – the identity function is applied to type e entitites. On the other, the verbs that require SELF-intensification for reflexivization are verbs like *admire, accompany*, *give* etc. – verbs denoting "other-directedness" in the sense of activities conventionally directed at others as opposed to conventionally self-directed activities like *dress* and *undress*, *wash* etc. This lexical-pragmatic distinction is crucial to account for the distribution of SELF, but it is not sufficient to explain how it works. Only with an analysis of the intensifier as a trigger of focus alternatives in the sense of Rooth (1992) does the SELF provide its own contrast, which is matched in the other-directedness of the predicate. SELF-intensification is used to make the contrast to the implicit other-directedness explicit, and is needed for that very purpose. In accordance with Bidirectional Optimality Theory (Blutner and Zeevat 2003), the self-directedness must be marked explicitly due to the contrasting directedness of the predicate. Enriching his focus-theoretic approach with the distinction between INFORMATIONAL AUTONOMY and INTEGRATION made by Jacobs (1999), Sæbø is also able to present a plausible explanation for the distributional differences of SELF-intensification across languages.

Focus and contrast also come into play in ECKARDT's account of the German lexical item *eigentlich*, which can be used as an attributive adjective and as an adverb. The expression has a cognate *egentlig* in Norwegian but does not have a cognate in French or English; *real, really, actually* being the closer English correspondences in many contexts. Eckardt proposes a compositional semantic-pragmatic analysis based on the assumption that the adjective *eigentlich* contrasts the "nominal" or "named" content of a concept C with a contextually given notion of "phenomenological" evidence for C-hood, while adverbial *eigentlich* raises the meaning of the adjective to the propositional level. She demonstrates that stressed adverbial *eigentlich* functions as a contrastive topic, i.e. it associates with a second focus in the sense of Büring (2003). Thus it gives rise to alternative propositions and refers to a contrasting proposition q in context, conveying that q would lead one to expect one of these (false) alternatives rather than the actual facts. In the last sec-

tion of her paper, Eckardt discusses derived particle uses of *eigentlich* that deviate from the canonical adverbial *eigentlich* in syntax, focus sensitivity and meaning.

[8]   INFORMATION STRUCTURE AND DISCOURSE STRUCTURE   UNDER THE SAME HAT?

In the invitation to our conference we used the expression "information structure" in a very wide sense – and this wide sense seems to have been captured by the researchers who responded to our call for papers. Information structure in a wide sense refers to the various mechanisms that are involved in distributing information and creating coherence in text units larger than the sentence. Thus in this wide sense it entails information structure in a narrow sense – i.e. constituted by the sentential features TOPIC and FOCUS – but it also encompasses DISCOURSE STRUCTURE, which includes coherence phenomena that are triggered by the mere assumption that sentences in text are not put together at random. The assumption of coherence is the basis for inferring discourse relations between the segments of a text. Such relations may be purely rhetorical, as in Rhetorical Structure Theory (RST), or they may be at once rhetorical and semantic. Asher (1993) distinguishes between rhetorical relations and coherence relations. Rhetorical relations are relations between constituents of text. They segment a discourse on the basis of the rhetorical function of particular propositions in relation to propositions already established in the discourse, and typically contribute meaningfully to the development of the discourse. Coherence relations, on the other hand, are relations between eventualities within discourse constituents. Unlike rhetorical relations they directly contribute to the truth conditional content of the constituents themselves (Asher 1993, 265).[4]

The various terms used in the literature to designate the relations that hold between propositions in general reflect the uncertainty that exists among linguists as to their ontological status: discourse/semantic/logical/rhetorical relations.

Some theoretical approaches operate with a rich ontology of relations, others restrict discourse relations to coordinating and subordinating relations without further refinement. Topic and focus are undoubtedly involved in the establishment of discourse rhetorical structure, and this is one of the reasons why it may be useful to operate with a concept of information or discourse structure in a wide sense. Prosodic features marking sentence focus INTERACT with other features in the processing of the communicated information, ranging from anaphoricity through syntax, structural parallelism and contrast, discourse structural coordinating and subordinating structures to prosodic discourse features such as pitch range (expanded and compressed, cf. Jasinskaja et al 2004) and pauses, in addition

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[4]   In Asher and Lascarides (2003) 'rhetorical relation' is a more general cover term.

to the unavoidable and very central world knowledge based inferences.

A very interesting aspect of some of the contributions in this volume is the demonstration of how focus syntax and prosody contribute to distinguishing between different interpretations of context sensitive lexical items/expressions. This is documented very clearly for the various interpretations of *eigentlich* in Eckhardt's article, as well as for German *doch* in Karagjosova's paper (see above). The discourse structural properties are shown to have an important impact on disambiguation and determination of meaning, and these papers thus reconfirm the importance of uncovering and categorizing the linguistic clues which contribute to constraining the contextual factors involved in the interpretation of meaning. World knowledge is no doubt always relevant for the interpretation of linguistic utterances, but the linguistic system is here again demonstrated to contribute subtle, but extremely valuable clues.

What, then, is the basis for determining the discourse-rhetorical relations?

[9]   DISCOURSE STRUCTURING AT THE SYNTACTIC LEVEL

Recent attempts at determining the linguistic basis for discourse structure suggest that discourse coordination may be tested on the basis of syntactic coordination (Asher and Vieu 2005). One argument in favor of a correlation between the two types of coordination/subordination is that typical cases of discourse coordination, e.g. Continuation and Narration (Asher and Vieu 2005), occur in syntactic conjunction, while a prototypical subordinating relation like Elaboration seems blocked in coordinate syntax– at least in English (Carston 2002; Blakemore and Carston 2005). A causal relation, which may be expressed syntactically by subordination, is also a very likely interpretation of VP conjunction, hence a coordinating discourse relation according to the syntactic test. However, the fact that discourse- coordinating relations may be expressed by syntactically subordinate clauses complicates the attempted correlation between discourse structure and syntax (cf. Fabricius-Hansen and Ramm 2008). Besides, there is reason to believe that the discourse-relational potential of syntactic coordination varies somewhat across languages (Ramm to appear).Within the rich ontologies of discourse relations the coordinate/subordinate distinction is also blurred by the fact that one relation may be both coordinating and subordinating (Asher and Vieu 2005, Behrens and Fabricius-Hansen to appear).

Asher and Vieu (2005) define their distinction between discourse subordination and coordination in terms of Segmented Discourse Representation Theory (SDRT), which originated with Asher (1993) and was further developed by Asher and Lascarides (2003). Along with other pragmatic theories of discourse, it assumes a non-monotonic scheme by which the relations may be inferred, yet only by default. It has turned out to be very hard to pin down not only the precise definition of a number of relations, but also the particular discourse properties of the

connectives used in the languages to express them. The French connective *alors*, which is the topic of Bras et al.'s contribution, is a case in point: it is a temporal connective (semantically), but it is also understood to contribute some discourse structural meaning of "weak" causation between the propositions it connects. Is this meaning truth-conditional or a matter of pragmatic, non-monotonic implicatures? Furthermore, is it part of the meaning of the connective itself, or an element of meaning which results from combining the content of the sentences it is used to connect?

Questions of this kind are central not only for a SDRT analysis of connectives but for any approach to the semantics/pragmatics of connectives and conjunctions, and although the questions are not new, they are still highly relevant in the present linguistic debate. A number of analyses of connectives have been published during the last fifteen years, not least to give support to different theoretical approaches to connecting discourse. SDRT is central here, and competes to some extent with the Relevance Theoretic approach, but while SDRT – as an extension of DRT – takes the linguistic input seriously for all it is worth, Relevance Theory attaches more weight to extra-linguistic contextual knowledge in the search for optimal relevance. The inference mechanism in the RT view is not based on lexical structure, formal meaning postulates and default axioms, but on the listener's online processing of her/his knowledge of the pragmatically inferred referential meaning of the utterances.

[10]   DISCOURSE STRUCTURING AS A PRAGMATIC ISSUE

The status of the discourse relations is still somewhat blurred. One interesting issue is whether discourse relations are clearly defined at every step, or whether there may be more than one relation at any step in the development of a text. Baldridge et al. (2007) claim that discourse structure must be represented as graph structures rather than as simple tree structures for the very reason that multiple relations may obtain for a discourse unit. This is not a topic taken up at any length in the present volume, but see Bras et al. for further references; see also Stede (2008) and relevant contributions in Benz and Kühnlein (2008). Webber and Prasad also demonstrate how discourse units are not always successively linked linearly, i.e. to the previous discourse unit, and make it clear that discourse relations hold at different discourse levels. Their article demonstrates very clearly how empirical data challenge existing theories of discourse structure.

Another very important complication in uncovering the nature of the relations, which also makes the discussion of discourse relations highly relevant for the present volume, is that very often they are not marked linguistically as such, but are left implicit. From the Gricean point of view that semantics and pragmatics are separated according to what is said and what is implicated, unexpressed discourse relations would clearly not make up part of the semantics of language.

Yet recent pragmatic theories are more open to the possibility that what is not said may also make up part of the semantics of the utterances in the sense of contributing to the truth conditions of the utterances, as discussed in the previous paragraphs. The way this may come about is a central issue in the ongoing linguistic debate, which is also evident from the focus of several of the papers in this volume. The fact that discourse relations are basically unexpressed supports ZEEVAT's fundamentally novel theory of pragmatic principles that constrain interpretations. His article in the present volume breaks important ground for revised thinking around discourse structural analysis. One ground-breaking consequence of his theory is for example that if general pragmatic principles are followed in the discourse, there is no need to mark them as such. The basic function of conjunctions and other connectives, therefore, is to mark deviations from general pragmatic constraints on interpretation. His contribution is a bold attempt at grounding all of pragmatics in a wide sense, including presuppositions, in a handful of ranked constraints, viewing explanations of linguistic events as a special case of a general notion of explanation.

The articles in the present volume demonstrate not only that explaining connections between propositions in text is still a "hot" issue, but also that views on how such connections come about, are very theory-sensitive. The order in which we have presented the articles reflects a move from general relevance theoretic thinking through intricate compositionally based semantic and pragmatic reasoning and bottom-up approaches, to a completely novel pragmatic theory of how interpretations are constrained. It is to be hoped that the present collection will inspire the reader's reflection on language interpretation.

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