ISSA Proceedings 2002 – The Conceptual Fabric Of Argumentation And Blended Mental Spaces

In my paper I will make a humble but unambiguous attempt at analyzing one specific aspect of the *creation of argumentative reality for critical, argumentative discourse*: namely, the nature of the linguistic texture and the corresponding conceptual fabric of arguments. I will invite my readers to look at the nature of everyday practices of argumentation in the light of an interactive mechanism that shapes argumentative reality. Two driving forces will be identified within this interactive mechanism:

a. *conceptual flexibility reflected in language use,* seen as on-line dynamic construction of full social meanings and

b. *argumentation structures* seen as the result of normative, though audience-oriented and presentation-bound reasoning behavior.

The starting point of my investigation is the appreciation of the basic tenets of the workings of critical, argumentative discourse as proposed in the *problematological enterprise* based on the dialogical game of question and answer (cf. Meyer 1994) and the *pragma-dialectical engagement* in creating argumentative reality (cf. e.g. Eemeren & Grootendorst 1994). Both of these approaches take it for granted that discursive argumentative behavior is determined by general principles of reasoning practices and rational discursive behavior. The critical discussions themselves ought to be seen as stretches of discourse composed of different types of argumentative speech acts. In an earlier analysis of the conventional aspects of argumentative speech acts (see Komlósi 1997) I investigated how institutionalized contexts and situated language use exploit fixed illocutionary and perlocutionary procedures creating expectations regarding possible inferences and the structural organization of argumentative discourse. The pragma-dialectical model of a critical discussion establishes an idealized model of the speech acts performed at the various stages of critical

discussions by protagonists and antagonists who make attempts to resolve their differences of opinion in a reasonable way. The pragma-dialectical discussion procedure amounts to the constitution of a code of conduct for reasonable discussants, based on the critical ideal of reasonableness. I cannot go into the philosophical discussion about reasonableness and rationality here. However, I will claim and emphasize with my analysis that the question of reasonableness must be discussed and should be re-evaluated at the level of concept construction and conceptual integration for linguistic expressions and linguistic thought underlying the argument structures we use in argumentative discourse.

Recent developments of integrating rhetoric insights and rhetorical goals with the pragma-dialectical method of analyzing reasonableness in argumentative discourse have opened new vistas for further investigations: audience-orientedness and presentational-boundness have been identified as new sources for argumentative materials (see Eemeren, Ed. 2001).

Conceptual flexibility reflected in language use
Our everyday argumentative practices are greatly influenced by the linguistic texture and the conceptual fabric coded in linguistic behavior. I want to remark here that in the medium of language use much more power is actually assumed by *conceptual flexibility* then we are likely to acknowledge. What we can find when looking at the processes of language production is that endlessly variable meanings emerge from the combination of particular word choices in texts and narratives, from collocational variance, from context relevance, from figurative language use, from metaphorical and metonymical extensions and from different types of conceptual integration. The production and interpretation of these novel meanings are not random or arbitrary at all. There are uniform structural and dynamic principles at work in these meaning operations which take place under competing optimality constraints.

The analysis I envisage for a wide-ranging investigation of linguistic texture should discuss
a. *semi-variable linguistic elements* (such as set constructions, clichés, slogans, idioms, collocations) and
b. *fully-variable linguistic processes* (such as metaphorical and metonymical extension, conceptual projection, conceptual integration and mental space blending (cf. e.g. Sinclair 1991, Kay 1997, Turner and Fauconnier 1998, Coulson 2001). For the specific purposes of the present analysis, however, I will constrain

my attention to the analysis of *conceptual integration and mental space blending operations* only.

Argumentation theory has obviously been influenced by the fundamental debates in linguistics and the philosophy of language concerning the nature of sentence meaning and utterance meaning, the role of contextual and background knowledge in inference making, meaning construction and reasoning behavior, the nature and application of mental models of discourse events and the role of linguistic expressions in evoking frames and mental images.

There is a growing consensus among the cognitively-oriented people in language science that "utterance meaning is *not* in the speech signal, but it is actively constructed by speakers in response to linguistic and nonlinguistic cues."(Coulson 2001, xii.) These critical cues will activate background assumptions which are necessary for *interpreting acts and linguistic acts*, the two pillars in the construction of social reality. If acts and linguistic acts make sense to any audience, they can only do so by being embedded in contexts which are closely related to complex sets of background information residing in the form of frames, scenarios, scripts, schemata, idealized cognitive models, folk theories, etc. All these formations represent structured background knowledge and have important experiential character. *Frames,* used in the present analysis as a cover term for all the above listed formations, are motivated by individual human experience, social institutions and cultural practices. *Words* (and linguistic expressions in general) are defined with respect to frames and are used to evoke them. Different expressions highlight different aspects of a frame and evoke a frame along these aspects. Certain verbs (e.g."buy-sell-pay" in the Commercial Event frame or "lend-borrow" in a general social transaction frame) may evoke the same frames, but accentuate or profile particular perspectives, positions, motives or intentions of particular participants.

Cognitive psychology has provided substantial evidence for the assumption that subjects, functioning as rational agents, utilize frames and cognitive schemata in a variety of cognitive tasks connected to perception, deliberation, planning, or to employing memory for events, making inferences in complex situations, making default assumption about unmentioned aspects of situations or making predictions about possible consequences of actions. If this is the way we solve cognitive tasks, we have good reason to assume that our meaning construction operations and reasoning practices are likely to be running along similar lines.

According to the constructivist approach, words do not retrieve lexical entries but they rather activate abstract structures and processes for integration with contextually available information. In other words, *words are used to evoke an indefinite number of contextually motivated interpretations*. Because of the potentially infinite number of nonce senses, the lexicon cannot be finite. The contribution of an appropriate word meaning depends upon the context in which it appears. In the absence of explicit context, however, speakers activate generic frames filled with default values. Words, thus, are understood as setting up frames which may apply to *actual, representational or hypothetical referents*.

Productive language behavior can be witnessed at its best when non-standard meanings are generated. Interestingly, non-standard meanings are absent from dictionaries. They prove to be non-computable by traditional parsers. Such non-standard meanings can occur, inter alia, in metaphoric and metonymic expressions, hyperboles, understatements, euphemisms, exaggerations, sarcastic quips, innuendos, subtle accusations, private meanings (cf. particularized conversational implicatures), tacit assumptions based on convention or consensus (cf. generalized conversational implicatures).

Frames and other conceptual domains are basic units and building blocks in the realm of thinking. For further analysis, I need to introduce briefly two mental operations that are crucial for understanding how we construct meaningful verbal utterances, texts of different types and stretches of discourse.

Frame-shifting is semantic reorganization that occurs when incoming information is inconsistent with an initial interpretation.
Conceptual blending is a set of cognitive operations for combining frames from different domains (cf. Coulson 2001: xii).

Let us consider the following example for frame-shifting (cf. Coulson 2001:58).
FS1:
Arguments between couples are healthy; sometimes they even prevent marriages.

The first clause creates an operational frame, FRAME1 which overrides the default assumption that arguments are bad. Further, there is an invited interpretation to FRAME1 evoked by the expression "couples": the assumed goal for couples is that they ought to get along well with each other while staying together, often as married couples. However, the idea of "preventing marriage" changes the assumed goal associated with FRAME1 and induces a frame-shift. We

get FRAME2 with the assumed goal that couples should avoid marriages. An obvious contradiction arises if one tries to maintain the assumptions of both FRAME1 and FRAME2. Inevitably, the original default expectation gets re-modulated, as now it is assumed that arguments can be bad after all as they may prevent marriages. However, the resolution of the contradiction is carried out by the creation of a new, emergent, pragmatic assumption introduced: couples who cannot cope with arguments should not stay together, i.e. their prospective (undesirable, unmatching) marriages should be prevented. But then again the original default assumption that arguments are bad need to be re-modulated: after all, arguments can be good and healthy in preventing undesirable marriages.

It is to be observed that we have here a prime case of a *blended mental space*. The blend itself selectively inherits some properties of the input spaces (FRAME1 and FRAME2), which separately had partitioned information, but the blend also has emergent properties, not included in any of the input spaces. In FRAME1 there is a claim about the healthy nature of arguments between couples. In FRAME2 this healthy phenomenon undermines the core meaning underlying the state of "being couples". The emergent, pragmatic assumption of the blended mental space is this: couples who cannot resolve their differences of opinion and cannot develop mechanisms to cope with arising arguments should not stay together as married couples. The constitutive semantic content of the blend, i.e. of the emergent mental space is by no means explicit: it is a result of a dynamic inferencing mechanism, an inevitable prerequisite of language processing and meaning creation.

The constructed meaning emerging from the blended mental space has the full strength of an argument. If the intended meaning of the arguer is recovered ("Couples who cannot resolve their differences of opinion and cannot develop mechanisms to cope with arising arguments should not stay together as married couples"), it becomes publicly available and stands for defense. Moreover, it is not only the arguer's intended meaning but also the inferential steps themselves that are transparently recovered. Thus, I want to claim that a person uttering FS1 commits themselves to acting as a reasonable discussant by creating an argumentative reality for critical, argumentative discourse such that the implicit and inferred argument of the utterance obtains a status of being publicly defendable.

Frame-shifting and conceptual blending (blending of mental spaces) highlight the *need for dynamic inferencing mechanisms in language processing and reasoning.* The meaning construction process can well be further complicated by the presence of various sorts of lexical and conceptual ambiguities. Interpretation models must include procedures for deciding between possible interpretations.

I also want to claim that the mental operation of opening up alternative mental spaces is a highly feasible and viable means to bridge, at least temporarily, what we call after Nicholas Rescher "epistemic inconsistency" and apply, consequently, the "suspension of rational judgement". This suspension can reside in a blended mental space with its emergent properties.

Let us consider some more examples for frame-shifting after Coulson (2001:35-36).

FS2:
a. John put the pot inside the dishwasher
creates FRAME1 based on a "washing-up-a-cooking-pot" scenario. The utterance of
b. because the police were coming
prompts a frame-shifting creating and activating FRAME2 based on a "hiding-pot" scenario.

Thus, the utterance of FS2 (b) requires a reanalysis of FRAME1 and triggers a complex set of inferences that will be constitutive for the new frame, FRAME2:

1. pot means marijuana which is an illegal substance
2. possession of illegal object counts as crime
3. for committing crime one gets arrested
4. John does not want to get arrested
5. John does not want the police to see his pot
6. John makes an attempt to hide the illegal object in his possession
7. etc.

Let us examine some more examples to enhance the taste of this mental operation (cf. Coulson 2001: 44, 49, 57, 67). Please note the presence of particular expressions prompting the inevitability of frame-shifting for arriving at viable (contextual) interpretations.

FS3

A thoughtful wife has pork chops ready when her husband comes home from fishing

SF4
By the time Mary had had her fourteenth child, she'd finally run out of names to call her husband

SF5
a. When I asked the bartender for something cold and full of rum, he recommended his wife

together with its gender variant:

b. When I asked the bartender for something cold and full of rum, she recommended her husband

SF6: My wife did natural childbirth: no makeup

Perhaps one more example from my own university lectures:

SF7
a. I'd like to die like my grandfather; peacefully, content in his dream;
b. unlike his passengers, screaming and scared to death

There is no time to give you further detailed analyses of why and how these frame-shifting phenomena come about. Let it suffice to underline the most important consequence of these mental operations though: in order to solve the problem of (logical or epistemic) inconsistency, the opening of new mental spaces, and consequently, the construction of an emergent, blended mental space will provide for a cognitively viable solution to integrate different types of information, which sometimes are or seem to be incompatible with each other. Such results certainly offer a link to better understand the ways our reasoning and argumentative practices come about and work.

At this point I ought to summarize briefly my analysis of the mental space operations. We are to conclude that dynamic meaning construction consists of mapping cognitive models (frames, domains, schemata, etc.) from space to space while keeping track of the links between spaces and between elements and their counterparts. In semantically underdetermined lexica and contexts, there is no way a parser could produce valid derivations of the logical representations of

sentence meanings.

Argumentation structures

In argumentation theory a crucial place is occupied by the study of unexpressed premises, unexpressed standpoints and arguer's commitments, together with the study of enthymems (i.e. types of presumptive argumentation in which listeners are to make or activate appropriate sets of assumptions and inferences). Argument reconstruction in these cases requires not only logical analyses based on formal validity criteria (especially valid argument forms), but also pragmatic analyses based on standards of reasoned discourse (defined especially on contextual information and background knowledge). According to a generally accepted view, the argumentation structure of a stretch of discourse is determined by the way the reasons advanced hang together and jointly support the defended standpoint, often captured by the term *argument schemes.* In the case of more complex types of argumentation, however, uncertainties of interpretation may arise since the literal presentation does not provide for sufficiently clear information of how the argumentation is structured (cf. Eemeren, Ed. 2001). Here we need to look at the nature of non-literal and indirect language uses, but we also have to take into consideration a lot of contextual specificities and background information (cf. especially Levinson 2000 for the discussion of presumptive meanings).

To conclude the present analysis, I want to propose a possible extension to the scope of the pragma-dialectical approach to argumentation structure by adopting the *speech act of profiling*, as discussed e.g. in (Langacker 1999). *Profiling can control the perlocutionary effect of utterances*, as the same situation or state of affairs can linguistically be conceptualized or framed from different perspectives or in terms of differently foregrounded features. *Profiling is a powerful tool in argumentation for inducing perspectivization and identification in audiences*. This much has been well known for a long time. What I hope to get across with the present analysis, however, is that the operation of profiling, a grammatical and a conceptual operation at the same time, shows close resemblance with the way mental spaces are utilized in a coherent working system of conceptual integration.

My final claim is this: natural language has a huge set of linguistic entities (words, expressions, collocations, set phrases, idioms, verbally expressed logical formulae, proverbs, sayings, linguistic emblems, innuendoes, etc.) that have

undetermined semantic content by themselves, however they have a high potential by design to prompt, evoke and activate contextually appropriated abstract mental models (frames, scenarios, schemes, etc.). These mental models function as constituting elements in space building. Mental spaces thus represent complex sets of beliefs, hypothetical or fictional scenarios, scripts and schemes, events and situations located in time and space, thematically structured domains (knowledge hierarchies such as encyclopaedic knowledge structures, world knowledge, abstract systems knowledge, logical laws), etc. As discourse unfolds, the discourse participants extend existing spaces by adding new elements and relations between elements to the cognitive models already evoked, or they actually build new mental spaces when utterance interpretations require background assumptions incompatible with or contradictory to the background assumptions of current mental spaces. This is what I exemplified with the frame-shifting and space blending examples above. In the coordinated system of spaces the *focus* is the space in which meaning is currently being constructed and the *viewpoint* is the space from which other spaces can be accessed. Such a space organization on the conceptual level corresponds to the speech act of profiling on the pragmatic level, as analyzed above.

Human inferential abilities are crucially important for language processing. This, however, cannot be the ultimate aim of a highly sophisticated cognitive organ, the human mind. Based on the remarkable efficiency of language processing supported by the information contents inherent in epistemic contexts specifically and in the cognitive environment generally, human reasoning and argumentative behavior, a major domain of human symbolic acts, gets thus constituted and reinforced. The manifestation of the human reasoning and argumentative behavior is argumentation, the research object in the focus of argumentation theorists.

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