

SEMIOTICS

SEMINARS & LECTURES



F A L L S E M E S T E R 1 9 9 8

Center for Semiotics
UNIVERSITY OF AARHUS

INTRODUCTION

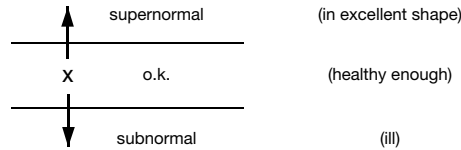
by Per Aage Brandt

Dynamic semiotics - a semio-cognitive research project

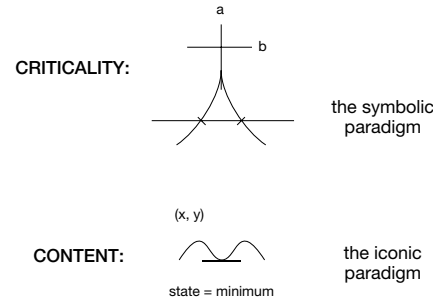
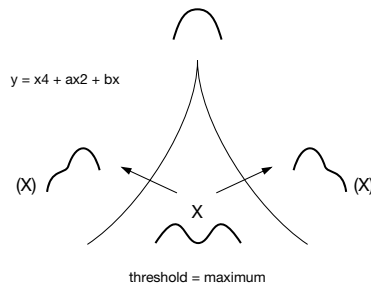
Dynamic Semiotics is a ‘brand’ in the panorama of contemporary semiotics, which is itself a ‘brand’ of basic research in the Humanities at large. Its general idea is that the task of the Humanities is to understand the ‘human world’ as distinct from the rest of Nature due to the strong input it receives from the ‘mental life’ of human beings. This ‘mental life’ is the object of a **General Semiotics**, a discipline that therefore has to follow the naturalistic Mind-Brain-related research closer than do the classical Humanities, but that also has to take part in the analytic work of the humanistic fields, where the human Mind historically unfolds into a ‘mental life’ as experienced on all levels of abstraction. Within General Semiotics, the Dynamic trend of research focuses on the active structures or patterns that make things meaningful across these levels, in order to root them in the basic semantic properties of everything that a Mind (say, the consciousness-related part of the brain) can process, and in order to understand how there can be levels of abstraction, such that **non-specific** concepts or schemata can persist on any level and even stimulate the creation of **specific** and knowledge-bound meanings (cultural discourses, practices, beliefs, etc.). In our ‘mental life’, one might say that Evolution meets History, or ‘universals’ meet ‘particulars’, as generic ‘intelligibility’ meets actual ‘understanding’, or concepts meet meanings, and they constantly interact.

Dynamic Semiotics studies these active and meaning-supporting concepts both speculatively and empirically (as R. Thom recommends), starting from the hypothesis that they are stable structures based on **forms** and **forces**, linked or merged into iconico-symbolic units—schemata representing both a spatial scenario and its temporal potentiality—which can be grasped by dynamic models of certain kinds. Catastrophe Theory offers a set of dynamic topologies that promise to account for some elementary ways of intimately connecting the spatial ‘image part’ and the temporal ‘effect part’ of these units: a catastrophe has a control topology whose criticality accounts for **symbolic** values (given in time) such as ‘difference’, ‘identity’, ‘change’, and it has an internal dynamic space accounting for **iconic** values (given in space) such as ‘beings’, ‘circumstances’, ‘events’, ‘states’, ‘conflicts’. A ‘qualitatively mathematical’ modelisation (‘formalization’ would be an ambiguous term) of meaningful situations, acts, and dramas in general, whether mentally occurring as perceived and experienced or as represented, recalled, dreamt or otherwise imagined, then seems to be the key to a unified semiotic and cognitive—hence semio-cognitive—understanding of Meaning, i.e. Meaningfulness as such. This approach might be characterised as nominalistic on top, but realistic at the bottom, of a vertical paradigm describing the apparent stratification of a ‘mental life’, and might thus affect the philosophical settings of our overall reflections on the ontological status of Meaning.

Let this brief account be slightly more technical. The essential property of a dynamic schema is its criticality. Consider a so-called ‘norm’: it has a lower threshold \rightarrow X is subnormal, not o.k.; and it has an upper threshold \rightarrow X is supernormal, excellent, extraordinary. Example: ill//healthy//supertrimmed. Hospitals aim at obtaining only the middle stratum. (Sport physicians sometimes try something else).



The catastrophic version would be the following:



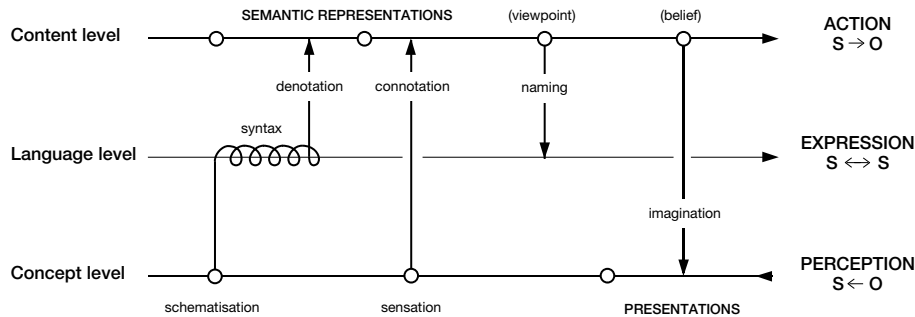
In the modal interpretation, the system X is stabilized by the minimum as an attractor (a possible state of X), and the disappearance of a minimum (and of a repulsor maximum) is a destabilization (a negation of the possibility of that state), cf.: “X is not healthy, he is ill”, and “X is not healthy, he is more than that: in a fabulous shape”, versus “X is o.k., he can leave the hospital now”.

The point is that the schema, dynamically conceived, contains its own critical analysis as a horizon of potentialities. In the iconic dynamism, form is force, and the symbolic form of that iconic form is the paradigmatic unfolding of its potentialities.

What is now the role of **language** in schematization? The basic fact seems to be that it picks up systems, states, conditions (X, minima, maxima), and also changes if they are critical. Example: if a threshold flattens, a restoration of it is a reconsolidation of the state behind it (cf. curing an illness); changing is, inversely, flattening a threshold. Acts are critical interventions on a state scenario. Negation and modality express critical evaluations of potentialities and thereby orient all other operators.¹ But language—specific linguistic processing—has two

1. Cf. P. Aa. Brandt, *La charpente modale du sens*, Amsterdam: John Benjamins 1992, *Dynamiques du sens*, Aarhus: Aarhus University Press 1994, *Morphologies of Meaning*, Aarhus: Aarhus University Press 1995.

other, non-schematic, roles: a vocative naming function (related to speech acts and emotion) and a belief-building, subjective-content instructive function, responsible for what we might call our ‘realistic semantic representations’. These representations can further be ‘sent back’ to the basic concept level, where schemata operate, and thereby be de-realized, purely imagined, as in metaphor source meanings (B in ‘A is B’). Consider the following diagram for a summary:



Linguistic processing runs from left to right (afferent in the brain), as do the construction of semantic representations, which ‘blend’ denotative and connotative inputs into the final Belief that either triggers action or re-enters into the ‘presentations’ of the Concept Level, whose processing runs from right to left (efferent in the brain).

This is a new account of the roles of language in the mind; it should of course be checked against animal-mind designs, in which the expressive level is weaker, has a simpler syntax, and does not support lexical unfolding of naming, and where the perception-to-action path is dominant, whereas here it is inhibited by the imaginal feed-back and the reduction of the direct link from sensation to semantics to a connotative synaesthetic, ‘juicy meaning’ (L. Talmy’s term) filling of the schematic-semantic slots. The conception of semantics is also new as a subjective process of belief-building, including perspective (viewpoint), i.e. as a deeply realistic involvement that only in a second move becomes pure ‘imagination’.

Language reception is a specialized perception running through the same instances as ‘states of things’. Its schematization is a speciality of the communicative domain (see below).

Here are some selected themes of current concern in Dynamic Semiotics.

I. Semantic Domains:

The function of consciousness and the role of language as a main access that consciousness has to itself through expressive-cognitive interrelations with other minds, are based on the sort of genres of experience that conceptualization treats as distinct, as semantic domains, in which things, events, situations and so forth are schematized by a neurally specified, selective sensibility. The classical distinction between ‘inner’ and ‘outer’ worlds is an example

of folk notions of domains. Meaning is cognitively grounded in domains of experience that are also the semantic domains referred to by discourse.

In the developmental unfolding of the individual psyche during its onto-genesis, domains spring out of other domains, triggered by stimulation or held back as latent capacities by lack of stimulation. But once developed, all domains have inherent formal properties, and they schematize according to specific understandings characterizing a corresponding genre of experience. Metaphors do not create, but reinforce or add schematic information to their target meanings. Onto-genesis is vertical, but the world is intelligible by autonomous domains given independently as by a horizontal map. A horizontal 'life-world' is discovered vertically.

Four elementary domains are rendered discrete as a condition for other domains - our research has detected ten domains in all so far - that are active in the formation of metaphors and separate schematic apperception, underlying discourse-manifested topicality. These four are: D1 (Physical spatio-temporal organizations); D2 (Collective, proto-social behaviors); D3 (Mental fields of expectation, natural logic, belief validations); D4 ('Enunciation', face-to-face expressivity, elementary inter-individual communication, and emotion).

The corresponding first bifurcations of discretization are the following: 1: $D \emptyset$ (synaesthetic limbic input) \rightarrow D3; 2: $D \emptyset \rightarrow$ D1; 3: $D1 \rightarrow$ D2; 4: $D3 \rightarrow$ D4. Each bifurcation has a structural description. Briefly: 1) emphasizes representational continuity; 2) presentational Gestalts; 3) dynamic vectorization, and 4) item identity and personhood.

2. Causation schemata:

Causation is distinctly schematized in D1 through 4. Simple 'billiard-ball' causality is grounded in D1. Causality by 'spreading' schemata is a D2-grounded phenomenon. Multiple input \rightarrow single output causality, or 'making' causality, is the D3-schema that underlies conditionality in general and therefore natural 'if-then' logic as applied in all domains. In D4, a fourth causal schema appears, based on 'letting'; a person 'lets' another person do what she already 'wants' to do (volition is involved here, but in none of the other causal schemata). Causation types are the most important example of the cognitive differentiations to which domains give rise; different linguistic constructions (semio-syntactic forms) can be traced back to specific domains—e.g.: Datives are D 4-bound—, even if they easily jump to parallel domain strings in the bifurcational architecture. The same things are conceived of in multiple and creative ways, because causative and related schemata travel parallel to each other and are copied by analogy from domain to domain.

Causative schemata have object-transformational scenarios, structured by finite sets of mereological deformations. 'Making' has a particularly rich object-mereology, which appears in conditional structures. There is thus a definable set of global causal concepts in human cognition which cognition has picked up from domainial experience and linguistic representations have sealed in basic expressions ('constructions').

3. Signs and concepts:

There is an iconic mapping from basic cognitive **concepts** onto expressive forms, and an inverse reconstruction of ‘signified concepts’, yielding **contents**, which command behavior and also reintegrate, or blend, with basic concepts into wider, blended representations. This phenomenon—conceptual integration—explains inter-neural (‘intersubjective’) cooperation in communication and thought: the communicability of meaning. It also explains the philosophically intriguing duplication of meaning as immanent content (Sinn) and referential, notional meaning (Bedeutung)—i.e. the difference between structural meaning and truth-conditional meaning. (Meaning ‘in here’ and meaning ‘out there’).

Sign structure—linking expressions to semantic items—thus fits into cognitive conceptual analysis according to this principle, unifying semiotics and the cognitive sciences’ analytic concerns on the grounds of a realistic architectural model (contents over forms over concepts).

4. Linguistic syntax and linearization:

Linguistic theories can only be tested according to their ability to cope with the one major problem: **linearization**, i. e. the relation of structure to string. This problem is the crux of all machine implementations hitherto. On the basis of ‘stemmatic’ structure theory and analysis, a principle has now been detected according to which the signifiers of structural components in sentence, clause, and phrase syntax are naturally linearized by head-related addresses, performed in a purely structural order and occurring as weighted marks on lexemes. Only very few basic marks seem to be needed. Structure-to-string projection thus operates without complex and rigid rule systems, and can be simulated by connexionist methods. String-to-structure projection, the last step and by far the most difficult part of the problem, is currently being studied as an inverse process: it comprises detection of structural heads and head-guided conjecture, strongly restricted by stemmatic canonicity, learned constructions, and semantic support (cf. Causation schemata).

5. Emotions:

The study of emotional meanings and their expressions and relations to action is an interesting part of the semio-cognitive project. Emotional patterns of meaning include schematic scenarios and the narrative sequences contextualizing them; expressions include gaze interaction, face-to-face interaction based on empathy and mutual interpretation of facial expressions, and linguistic interaction grounded in structures of enunciation. They are directly linked to the meaning of causal verbs by their inherent feed-back from and feed-forward to volitive intentionality. This study is a new trend in psycho-semiotics, cognitive sciences, and psychiatry (where the results are expected to improve treatments and therapeutic training); the semiotic approach also integrates humanistic data and dynamic modelling.

Special attention is paid to the phenomenon of **smiling** (with values extending from substantial /joy/ to formal /politeness/, through combinations with almost all other emotional values, which are dysphoric, e.g. /anger/:

cf. irony. It turns out to be an abstract **empathic morpheme**, along with a few others, and thus a good example of the morphological structures underlying the apparently vague flows globally experienced.

6. Meanings and Models:

Any value or unit of meaning is organized both as a figurative and as a dynamic informational whole. This fundamental insight has important bearings on the understanding of—1) **consciousness and the brain**: Figurativity and dynamics are probably processed separately and by different velocities, and their integration yields experienced ‘windows’ of conscious apperceptive access following each other as sequences of temporal frames whose duration is as much as 3 seconds;—2) **metaphor**: Figurative and dynamic units meet in metaphorical integrations, and the source-to-target ‘projections’ are essential to subsequent inferencing; the reduction of source-units in metaphor (B in ‘A is B’) to generic icons is probably due to the windowing temporal compression;—3) **categorization**: the dissolution of figurative-dynamic bindings triggers recategorization, and new categories are new bindings,—4) **modelling**: models are artificial bindings that imitate metaphors and obtain iconic units which are understood by the same principles, including inference; but models escape the temporal constraint—since each component is grasped separately—and can therefore be understood as modifiable compositions;—5) **blending**: units of meaning are contextualized by ‘spaces’ (sets of frames) that always contain other units; when a unit is combined with another unit that does not belong to the ‘space’ of the first, a **blend** is created, and some units from both input spaces are co-integrated; the resulting ‘space’ can have new properties, and recategorization frequently occurs in it; this fact accounts for semiotic creativity in general, and in particular for modeling creativity in science, art, and elsewhere. Signs are minimal semiotic units that **embed** non-minimal standard units as their signifieds; their signifiers are nested in non-minimal categories (paradigms) whose elements combine into non-minimal expressions with clearer or richer figurative properties. Signs are thus cognitive ‘abnormals’ normalized by up-scaling to figurative-dynamic standard apperceptive extension (by double de-minimalization) when understood, and re-minimalized when used.

Meanings have neuro-phenomenological standard extensions. **Notions**, which over-extend, or maximalized are understood by reduction to prototype units with normal extension; **signs**, under-extending, are inversely treated by expansion to normal extension. Both processes are inherently dynamic; resistance to ‘normalization’ by interpretation according to these principles is regularly perceived as a challenge that attracts attention to an occurring unit, cf. **aesthetic** interpretation and the positive role of ‘difficulty’ in art.

Per Aage Brandt

SEMINAR CALENDAR



SEPTEMBER

Wednesday 9		12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 10		12-14: Semio-linguistics	15-17: Psycho-semiotics
Tuesday 22	11-13: L. Talmy: Lecture	14-16: L. Talmy: Lecture	
Wednesday 23	10-12: Philosophical Semiotics	12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 24	10-12: Conceptual Metaphor...	13-18: <i>Semiotic Research Group Meeting</i>	
Monday 28		12-18: L. Talmy: SEMINAR	
Tuesday 29		12-18: L. Talmy: SEMINAR	
Wednesday 30		12-18: L. Talmy: SEMINAR	

OCTOBER

Wednesday 7		12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 8	10-12: Conceptual Metaphor...	12-14: Semio-linguistics	15-17: Psycho-semiotics
Wednesday 21	10-12: Philosophical Semiotics	12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 22	10-12: Conceptual Metaphor...	13-18: <i>Semiotic Research Group Meeting</i>	

NOVEMBER

Wednesday 4		12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 5	10-12: Conceptual Metaphor...	12-14: Semio-linguistics	15-17: Psycho-semiotics
Wednesday 18	10-12: Philosophical Semiotics	12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 19	10-12: Conceptual Metaphor...	13-18: <i>Semiotic Research Group Meeting</i>	

DECEMBER

Wednesday 2		12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 3	10-12: Conceptual Metaphor...	12-14: Semio-linguistics	15-17: Psycho-semiotics
Wednesday 16	10-12: Philosophical Semiotics	12-14: Dynamic Modelling	14-17: General Semiotics
Thursday 17	10-12: Conceptual Metaphor...	13-18: <i>Semiotic Research Group Meeting</i>	

SEMINAR ON GENERAL SEMIOTICS

by Per Aage Brandt. **Wednesdays, 14-17. Auditorium 221.**

September 9	“Semiotica dinamica” - quid est? (cf. Introduction, above)
September 23	The Semantics of Causation (lit.: L. Talmy’s paper)
October 7	The Semantics of Modality (lit.: E. Sweetser’s chapter)
October 21	The Semantics of Condition (lit.: Dancygier-Sweetser’s paper)
November 4	The Semantics of Volition (lit.: a paper on Wanting and ‘Willing’)
November 18	The Semantics of Emotion (lit.: a paper on Facial Expressions)
December 2	The Semantics of Attention (lit.: E. Pöppel’s papers)
December 16	Meaning and Music (lit.: a paper on Rhythm and Tonal Structure)

The dynamic structure of our representations, due to our schematisation of experiences of all kinds, let us perceive **at once** both their **iconic** or figurative form, which is necessarily spatial, and the meaning of that form, which is temporal: their potentiality, the limits of their stability, their tendency to lead to or merge into something else, in short, their **criticality**. The critical potential is a sort of ‘negative plan’ built into any experienceable or thinkable item; we might say that ‘any something is a conflict’; the form of this conflict is the temporal form of the first, spatial form, its dramatic **indexicality**, but also its **symbolic** dimension, in which a functional and distinctive naming takes place. The semiotic stratification (icon, index, symbol) is not a simple nesting or layering, which adds structure to structure on different ‘levels’, but an inherent morphological property of any single unit, any unit we single out. (Stratification is suspect). Therefore, we evaluate what we memorize semantically. The object’s criticality means that we are already affecting it, and we must decide whether we want to continue, to ‘have it’ or not, depending on the content of its ‘plan’, from the moment it appears. This structural impact is a serious challenge to modelling, but easy to detect in a number of cases, that the seminar will discuss and try to handle.



SEMINAR ON DYNAMIC MODELLING

by Svend Østergaard. **Wednesdays, 12-14. Auditorium 221.**

September 9	Introduction to Talmy I
September 23	Introduction to Talmy II
October 7	Introduction to the notions of <i>dynamics</i> and <i>space</i>
October 21	Dynamic schemas and their significance for how objects and <i>physical space</i> are represented
November 4	Dynamics in relation to the egocentric space
November 18	Conditionals and “space-builders”. Introduction to the notion of “ <i>mental space</i> ”
December 2	Causality and intentionality
December 16	Text analysis

This seminar will deal with the old philosophical question of the relation between reality and meaning. Is meaning, as it appears in language, a representation of an external reality, or is it a mental construction that is projected onto reality? In the seminar it will be demonstrated that neither of the two possibilities are tenable. Meaning is rather based on the cognitive construction of virtual structures that depends on existing geometric and dynamic properties of the content world. That is, meaning is at once founded on existing objective structures and virtual mental structures.

In the first two sessions I will demonstrate the validity of this claim by using the findings of Leonard Talmy. These sessions can also be considered a short introduction to Talmy’s work in view of his visit to Århus in September. In sessions 3 - 6 the claim will be demonstrated in relation to the notion of **dynamics**. I will here take up the problems mentioned in the first two pages of the introduction to this program. In fact, what in the introduction is called the **criticality** of a dynamic schema can in certain cases be viewed as a virtual cognitively created boundary that depends, however, on existing forces in the content world. In session 7, I will discuss the notions of **causality** and **intentionality** and I will present an inventory of causal schemas that corresponds to qualitatively different types of causal relations in the phenomenal world. Finally, in session 8 I will apply the results from the previous sessions (especially 7) on a piece of fiction to demonstrate how the dynamic schemas ensure the semantic coherence of a narrative text.

During the course, the students will have the opportunity to apply the proposed dynamic schemas to a chosen case.

SEMINAR ON PHILOSOPHICAL SEMIOTICS

by Peer F. Bundgård. **Wednesdays, 10-12. Conference Room.**

September 23	General introduction to Dynamical Semiotics
October 21	Meaning and the notion of <i>Pure Grammar</i> I (Husserl's 3rd and 4th Logical Investigation)
November 18	Meaning and the notion of <i>Pure Grammar</i> II
December 16	Meaning and the Structures of Experience (Cognition, Phenomenology, and Semiotics)

Meaning is related to an **object** (a theory referred to, an act, an event, a feeling, something wished, imagined). On the other hand, all possible objects are or may be accompanied by Meaning (the task of saying what Being is amounts to explaining why it makes sense in a determinate way). To that extent, the relation between **semiotics**—the science of Meaning – and **philosophy** – the science of Being – is inextricable.

Though undetachable from each other, Meaning and Being do not coincide. Meaning is not the bundle of sensations that Being leaves upon the soul; Being is not the amorph matter organized by the structures of Meaning. Rather, Meaning must be the relatively autonomous, organized phenomenon through which we intend things in themselves (*“die Sachen selbst”*) in order to **understand** and **express** them.

This seminar will introduce to and develop the fundamental assumption of Dynamical Semiotics concerning the nature of Meaning and the nature of the relation that links Meaning to Being.

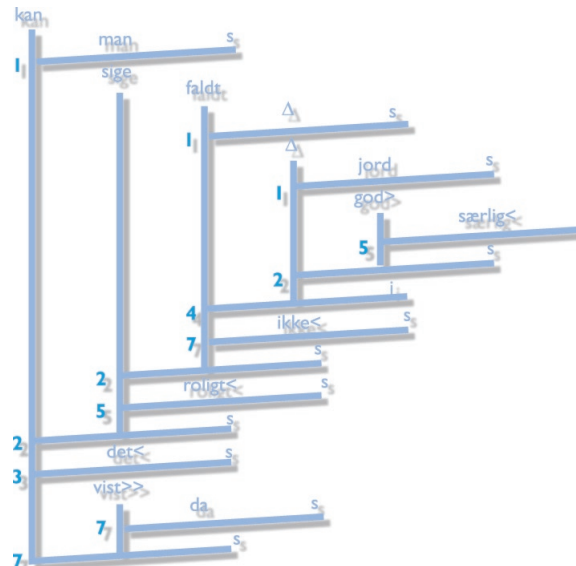


SEMINAR ON SEMIO-LINGUISTICS

by Lene Fogsgaard and Per Aage Brandt. **Thursdays, 12-14. Auditorium 221.**

[September 10 · October 8 · November 5 · December 3]

Grammar is a tricky thing: sentences have syntax, but the words we find or want to put in them have their syntactic claims of their own. The result is possibly an unstable balance, a battlefield where parts are struggling against other parts, and where winners and losers, patterns overruling other patterns, mark the surprising relativity of correctness, and the fragility of our 'ear'. If such a multiple conflict is possible, the weapons must be compatible: there must be a simple mode in which the word-driven constructional optima can meet or oppose the preferences of either other word-driven designs or the claims of the integrative sentential whole as such. We think that this structural mode is a 'language' of restricted bifurcations 'spoken' both by word-surrounding phrases and sentential constructional wholes. The relative insistence of participating entities, their power to subdue each other's extensions, seems to depend on the semantic **blends** that their integration creates. There are then two authorities in this world of syntax: the **generic** conditions given by this 'language' of language—we call it the STEMMATIC design of syntax as such—and the **semantic** information given by the cognitive motivation for expressing something at all. The study of simple narratives and poetic utterances will allow us to see—since we are all spontaneous Readers—how sentential contents, semantic 'beats', are driven into the generic mould, or 'measure', in the tumultuous life of real texts.



SEMINAR ON PSYCHO-SEMIOTICS

by Bent Rosenbaum and Per Aage Brandt. **Thursdays, 15-17. Auditorium 221.**

[September 10 · October 8 · November 5 · December 3]

Is subjectivity a separate component of our mental equipment, responsible for a regrettable noise in communication and action, and for the existence of cultural regulations of all kinds, or is it a cohesive force that harmonizes the interactions of an individual? When subjectivity suffers, do we then have an excess or a lack of it? In order to understand this classical issue better, we might profit from the analysis of 'intersubjective' experiences. Here, three forms of awareness are present simultaneously: there is a content scenario, accounting for what the interacting subjects are dealing with—a **referential** instance; there is an enunciational scenario, specifying what the subjects are semiotically doing to each other by the same occasion—a **post-referential** instance, presupposing the referential; and there is a background scenario, determining as a 'genre' the relevance of the doing in the perspective of some rationality—a **purpose space**, or a **pre-referential** instance, presupposed by the referential. An individual must represent herself as a subject in each of these instances. It must be an empathic (post-referential), intelligent (referential), and responsible (pre-referential) person at once. If Jensen can't stand Petersen (negative empathy), but has to collaborate with him responsibly for some task, there is a risk that she gets dysfunctional, becomes absent-minded, in the referential stance. The same thing could happen, if she were in love with Petersen (ambiguous empathy). Problems arise by lack of subjectivity (absent-mindedness, in these cases), so it seems. We might have to study the specific structure of each type of awareness, in order to see what variants disturb the other types. **Moods** apparently affect the pre-referential attitude ("what is it all about, why bother...?"); **emotions** affect the post-referential attitude ("why should I let this idiot help me...?"); and **passions**, vicious or vertuous, affect what we are dealing with ("its a fantastic job: all these beautiful machines...!" / "it's a dirty job, and I hate dirt!"). Any act has this triple perspective, and we are present in all of these 'objective' scenarios. If a personal character (a personality) is then a cocktail of moods, emotions, and passions, what are the principles of their combination? What **states** or semiotic values do we acknowledge in each parameter, and how do they 'construe' together? These are some of the questions for the seminar, which will empirically focus on some dramatic manifestations of subjectivity.

SEMINAR ON CONCEPTUAL METAPHOR, CONCEPTUAL BLENDING AND THE EMBODIMENT HYPOTHESIS

by Tim Rohrer (Fulbright Lecturer). **Thursdays (from September 24), 10-12. Room 221.**

This seminar will focus on extending Lakoff and Johnson's theory of conceptual metaphor and Fauconnier and Turner's theory of conceptual blending (aka conceptual 'integration') both **upward** into literary, psychiatric, anthropological and cultural studies and **downward** into the new cognitive neurosciences framework for understanding the mind. This project is known as the **embodiment hypothesis**.

In the embodiment hypothesis we maintain that **conceptual** structure is constitutively shaped by **perceptual** structure. Naturally this project requires analyses which draw from multiple **levels of explanation** in disciplines ranging from neurobiology to semantics and from rhetoric and cultural anthropology to neurocomputational modeling. But to what extent can we be sure that we are investigating the **same** phenomena in all these different fields? We will pay special attention to questions of how the theoretical constructs of cognitive semantics 'morph' to fit the constraints of different methodologies at multiple levels of explanation.

The philosophy of contemporary cognitive science can be characterized aptly as a debate over how (and **whether**) the evidence from differing levels of explanation in the multi-disciplinary study of language and cognition converges. As we move through the term, each session will discuss a key study or set of studies from a differing level of explanation as we survey the embodiment hypothesis through these multiple levels of explanation. Depending on the composition and interests of our group, the specific topics and authors of the levels of explanations to be surveyed will include: neurology and neuroimaging (Damasio), neuropsychology (Posner and Raichle), literature and rhetoric (Turner), grammar (Talmy, Langacker, Goldberg), evolutionary hypotheses (Edelman, Deacon), developmental psychology (Tomasello, Sinha), the visual arts (Turner, Forceville), computer science (Douglas, Goguen, Veale), neurocomputational models (Regier, Bailey, Narayanan), anthropology (Shore, Hutchins), philosophy, psychiatry and others.

By the conclusion of the seminar we should be familiar with not only a toolkit of methodological approaches to cognitive science but also the key role of structures such as conceptual metaphors in formulating research hypotheses.



GUEST PROFESSOR : **LEONARD TALMY**

Leonard Talmy will be visiting the Center for Semiotics in September. He will be giving two lectures and conduct a seminar.

Leonard Talmy is an Associate professor of Linguistics and the Director of the Center for Cognitive Science, at SUNY, Buffalo. He received his Ph.D. in Linguistics at the University of California, Berkeley. Since then, he has taught in Hamburg, Rome, and Moscow (the latter two as a Fulbright Fellow) and at Stanford, Georgetown and UC Berkeley; he has done extended research at Stanford on the Language Universals Project, at UCLA with language-impaired children, and at the University of California at San Diego in cognitive science; and was the Coordinator of the Cognitive Science Program at the University of California at Berkeley for six years.

His broader research interests cover cognitive linguistics, the properties of conceptual organization, and cognitive theory.

His more specific interests within linguistics center on natural-language semantics and its implications for cognitive relationship between semantic structure and formal linguistic structures -- lexical, morphological, and syntactic; and the relations of this material to dachrony, discourse, development, impairment, and culture.

Additional specializations are in Yiddish and American Indian linguistics. Recent publications include "*The Relation of Grammar to Cognition*", "*Force Dynamics in Language and Cognition*", "*How Langaue Structures Space*", and "*Lexicalization Patterns*". He is presently on the editorial boards of the journals Cognitive Science and Cognitive Linguistics and on the advisory board of the International Cognitive Linguistics Association.

LECTURES

Tuesday, September 22 (Auditorium 219)

11-13: **Relating Language toOther Cognitive Systems I**

14-16: **Relating Language toOther Cognitive Systems II**

SEMINAR

Monday, Tuesday, Wednesday, September 28-30 (Auditorium 219)

All days 12-18: **How Langaue Structures Concepts**

Inscription at the secretariate of the Center is needed, since attendance is limited to 30 persons; inscription fees incl. lunch, coffee, and materials DKR 300.

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