***Centre for Cognitive Semiotics (CCS**), ett RJ-financierat program vid SOL-centrum med forskare från lingvistik, semiotik, kognitionsvetenslap mm, inbjuder till en föreläsningsserie av Prof. Chris Sinha, känd utvecklingspsykolog och kognitiv lingvist från University of Portsmouth, UK. De åtta föreläsningarna kommer att hållas på tisdagar och torsdagar (utom den första) i SOL-centrum, med början 1/9 2010 och är öppna för alla intresserade.*

Language, Culture and Mind from a Pragma-Semiotic Perspective.
A series of 8 lectures.

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This lecture series critically explores the interdisciplinary matrix of contemporary theories of language and cognition, reviewing and contextualizing the speaker's research in topics in the evolutionary, cognitive and language sciences.

1/9 13:15-15:00, H428b
Lecture 1: Old Wine in New Bottles: Psychological Roots of Cognitive Linguistics … and Beyond.

I begin by setting out some fundamental postulates of Cognitive-Functional Linguistics, noting that many concepts employed by cognitive linguists are fundamentally psychological. In this lecture the historical roots in cognitive psychology of some key concepts such as *Gestalt, schema, frame* are analyzed. The status of these concepts as pertaining to neurobiology, individual psychology, culture and language is critically examined.

The question of whether Meaning, central to Cognitive Linguistics, is confined to language and to language users is addressed, and a broad definition of meaning as *biologically emergent* and *ecologically organized* is proposed.

The general perspective of this lecture series, which I term the Socio-Naturalistic perspective on language, cognition and human development, is outlined as follows:

a) The embodiment of language is in semiotic as well as biological material media ("signware" as well as "wetware").
b) The embodied mind extends beyond the boundaries of the individual organism to encompass the artefactual world ("the materiality of representation", "the extended mind").
c) Mind is intersubjectively shared, socially distributed and culturally amplified ("language as tool and vehicle").
d) Language is dually grounded, in perception-action linkages and in discursive communication, and this dual grounding is constitutive of the human ecological niche.

2/9 13:15-15:00, H428b
Lecture 2: Re-thinking Representation: Meaning, Representation, Conceptualization.

What is meaning, what is it for a sign to be meaningful, how can meaning best be analyzed, and in what sense is linguistic meaning proper or unique to language? A fundamental

problem facing the cognitive and language sciences is the nature of Representation. Should the human conceptual system be thought of as logically and developmentally prior to natural language semantics, or as a dependent part of natural language semantics? Can there be concepts without language? Is there a Language of Thought that is independent of language, or is the Language of Thought identical to natural language?

In this lecture a pragmatic and semiotic definition of Representation is advanced, which accords a fundamental role to the communicative, sign-using process itself. Representation, I propose, is not made up of "mental stuff" that exists in a different realm from the material world, but is rather *part of* the humanly constructed world of artefacts, including symbolic artefacts. Representation (including mental representation) is not a secondary structure superimposed over the world of things: rather, the world of things is representational in its material structure. This challenging notion is the essence of the thesis of *the materiality of representation*.

I propose that true concepts are socially, intersubjectively shared discursive symbolic representations based in, but not reducible to, schematic pre-conceptual representations. Linguistic meaning must be understood has having both a socio-cultural, discursive grounding, and an individual psychological experiential grounding. The dual grounding of linguistic conceptualization in shared sign systems and in individual experience is the fundamental basis of the *semiotic mediation* of human cognition, and a key proposition of a *socio-naturalistic* account of human development in both its cognitive and symbolic aspects.

The concept of "schema" is further explored and three questions are asked:

1. Do schemas exist at the neural, psychological or cultural (intersubjective) level?
2. Are schemas just "in the mind" (subjectively or intersubjectively), or do they also include some aspects of the material world they organize?
3. Are schemas always pre-conceptual, or can there also be conceptual schemas?

7/9 12:15-14:00, H428b
Lecture 3: Language as a Biocultural Niche and Social Institution.

How can culture be conceptualized from an evolutionary and ecological point of view, what are the relations between biology and culture, and how do theories of biology and culture bear upon theories of language? Culture can minimally be defined as the existence of intra-species group differences in behavioural patterns and repertoires, which are not directly determined by ecological circumstances (such as the availability of particular resources employed in the differing behavioural repertoires), and which are learned and transmitted across generations. On this definition, there is ample evidence of cultural differences in foraging strategies, tool use and social behaviours in chimpanzees. Such a definition will also qualify, for example, epigenetically learned intra-species dialect differences between songbird communities as cultural and culturally transmitted behaviour.

Some biologists have argued on this basis for the reduction of culture to the mere expression of biology. Other biologists, however, increasingly acknowledge the role of culture in shaping the evolutionary process at the genetic level, by the construction of new selective environments. Many non-human species behaviourally co-direct genetic evolution through niche construction. Taking an evolutionary and ecological perspective enables us to situate the role of culture in human evolution within a wider class of processes involving0

adaptation to behaviourally induced changes in selective environments (niches or animal artefacts such as nests, dams, mounds and burrows).

Human cultures, however, are different from the cultures of other species, in that the capacity for creating, acquiring and transmitting cultural forms is uniquely developed (though clearly not unique) in humans. Cultural acquisition and transmission is mediated in humans by the human language capacity. The nativist modular account of this capacity proposes its inscription in the human genotype. An alternative account is proposed that views the human language capacity as the ability to exploit a linguistic-symbolic niche. The capacity to acquire and use it is based on the evolution and replication of this biocultural niche.

Such an account does not require the organism to possess an internal model of the grammar of a language to account for language acquisition and use, any more than the building of a nest requires an internal model of the nest. The grammar of the language is *in the language*, just as the structure of the nest is in the nest. The capacity for language is thus a cognitive-behavioural relationship between language user and the constituents of language, just as the capacity for building a nest is a cognitive-behavioural relationship between the builder and the constituents of the nest; and it is this *relationship* that, in each case, has been selected for in evolution. This account is thus compatible with usage-based, cognitive functional theories of language.

The language artefact/niche is culturally situated, that is, dynamically embedded within a semiotic network which includes other symbolic and non-symbolic artifacts. Language acquisition and use is situated in the contexts of actuation of these inter-related aspects of the human semiosphere. This account accords with the view what makes humans unique is not an innate language acquisition device plus a variety of other species-specific innate cognitive modules, but a generalized semiotic or symbolic capacity, epigenetically developed from a suite of cognitive capacities largely shared with other species, but attaining higher levels of organization in humans.

The final part of the lecture explores the social ontology of language with the help of Durkheim's concept of the "social fact". I present a formal characterization of language as a social fact and social institution, based upon a semiotic re-working of Searle's notion of "counting as" in contradistinction to "standing for". A key conclusion emerging from this account is that a distinction can be maintained between semantics and pragmatics which does not rely on a truth-based formal semantics. Language, in the approach I present, is conceptualized as a multi-level biosocial system, dynamically coupled with its human users and with other semiotic systems.

9/9 13:15-15:00, H428b
Lecture 4: From Signal to Symbol to System: The emergence and evolution of language.

What distinguishes human language from other naturally occurring communicative behaviours and communication systems? The evolution of language is explored in this lecture through semiotic comparison of non-human communication systems and human natural languages. An exclusive focus on syntax tends, paradoxically, to minimize the gap between human natural language and non-linguistic modes of communication. In addition to syntactic and morphological complexity, all natural languages also display symbolic complexity (which subsumes the property named by Hockett "displacement"), cognitive

complexity (in terms of conceptualization subsystems) and pragmatic complexity (linked, in the case of performatives, to symbolic complexity).

I propose an account of language evolution based upon the representational development of prelinguistic, intentional communication in contexts of intentional, intersubjective joint reference. The model presented is one in which intentional reference becomes conventionalized and elaborated in processes of semanticization and grammaticalization, about which we know a great deal in the context of historical language change. The logic of emergence and elaboration of signs is proposed to govern both language evolution and individual language development. Language acquisition and development is based upon evolutionary adaptations of modern humans to sign use in communities. The evolutionary and developmental concept of *epigenesis* is invoked to counter both nativist (innatist) and empiricist accounts of language evolution and development. I discuss the role in language evolution of the niche of infancy, and suggest that the model is compatible with a "late emergence" scenario for evolutionary modern languages.

14/9 13:15-15:00, H428b
Lecture 5: Concept, context and extended embodiment. Spatial language and cognitive development.

In this lecture I argue that an adequate account of semantic development in early first language acquisition requires a theory and methodology that synthesize the insights of cognitive and cultural linguistics with a Vygotskian socio-cultural approach to human development. This involves recasting and extending the notion of *embodiment*, which is a central philosophical underpinning of cognitive linguistics. I discuss evidence from the cross-linguistic and cross-cultural study of spatial semantic development, focusing on concepts of containment and support. I argue that controversies regarding language-specific acquisition strategies and universal cognitive bases of semantic development may best be resolved by viewing the issue of "linguistic relativity" in a socio-cultural, as well as a grammatical, perspective.

As well as reviewing evidence from both my own research with colleagues, and other research, I further develop the notion of *extended embodiment*, which can be summed up in the slogan that "Embodiment extends beyond the human body". The everyday artefacts used in our experiments are not "culturally neutral", not just in the sense that they may be more or less familiar to individuals from different cultures, but also because they *embody* different conceptualizations or cultural schemas (in this case, of spatial relations). This "extended embodiment" does not exist in a vacuum: it is not, as it were, a property of the objects "in themselves". Rather, it is constituted and exemplified by the participation of the objects in an entire matrix of cultural practices, some of which are linguistic (or discursive) practices, and some of which are nonlinguistic. Furthermore, cultural schemas find a further manifestation, or expression, in the lexico-grammatical structures of natural languages, and it is from this perspective perhaps no surprise that children should be so adept in acquiring the specific conceptualization-expression mappings of their mother tongue.

16/9 13:15-15:00, H428b
Lecture 6: Meaning and Materiality. How Language Grounds Symbolic Artefacts.

The comparison between signs (including the signs of language) and tools has often been made. Karl Bühler), influenced by the functionalism of Prague School linguistics, proposed the Organon (Greek=tool or instrument) Model of language. Lev Vygotsky also viewed signs

as instruments, not only enabling communication between individuals, but also transforming intra-individual cognition. Vygotsky regarded the analogy as resting on the fact that both sign and tool support mediated activity; but he also distinguished between their modes of mediation in that, while tools are "outer directed", transforming the material world, signs are "inner directed", transforming and governing mind, self and behaviour.

Tools, of course, are one type of in the wider class of artefacts, but whether language as a symbolic system can be considered as an artefact is disputed. Pinker, in keeping with his nativist modularist view of the language capacity, denies that language is an artefact: he regards language as a part of the natural world, and the capacity for language as a part of human nature.

We can counter Pinker's view, however, by pointing out (following Laland *et al.*) that many species construct "artefactual" niches, and language itself may be considered as a universal (transcultural) component of the species-specific human biocultural. Language has a dual nature, as part of human species-being, what it means to be human, and as the foundational social institution in the Durkheimian sense. Treating language as a biocultural niche yields a new perspective on both the human language capacity (falsely identified with language itself by generative linguistics) and on the evolution of this capacity. It also enables us to understand the significance of language as the symbolic ground of the special subclass of *symbolic artefacts*. This subclass can be defined as comprising those artefacts that support symbolic and conceptual processes in abstract conceptual domains, such as time and number. Examples of symbolic artefacts are notational systems (including writing and numeric notations), dials, calendars and compasses. Cultural and cognitive schemas organizing at least some relevant conceptual domains may be considered, I shall argue, as *dependent upon*, and not merely *expressed by*, the employment of symbolic artefacts in cultural and cognitive practices.

To qualify as a symbolic artefact, the artefact must have a representational function, in the Bühlerian sense. All artefacts have a *signifying* status, inasmuch as they functionally "count as" instances of the artefact class of which they are a member, to use Searle's expression; and their material form signifies their canonical function. However, to be a *symbolic* artefact, the artefact must also *represent* something outside itself, through a sign function materially embodied in the artefact. All such sign functions are ultimately grounded in language, although they also frequently incorporate iconic relations. The recruitment of objects as signs in interactive contexts is of great importance in cognitive development. Intentionally designed symbolic artefacts, just as much as language, are constitutive parts of the human biocultural niche, and are of fundamental importance in human cultural-cognitive evolution.

21/9 12:15-14:00, H428b
Lecture 7: Patterns of Mapping. Distributed Spatial Semantics, cognitive typology and language development.

Spatial semantics has been fundamental to the enterprise of cognitive semantics. Most analyses of spatial meaning emphasize the polysemy of individual lexical items, viewing their context-bound semantic variability as a property of the word itself. This "local semantics" approach to the analysis of the meaning of locative particles such as spatial prepositions is examined, criticized and rejected. An alternative, distributed approach to spatial relational semantics and its linguistic expression is argued for. In the first part of the lecture, it is

argued that spatial relational semantic information is not exclusively carried in languages such as English by the locative particle, and that "item-specific meanings plus selectional restrictions" cannot save the localist approach. In the second part of the lecture, the "covertly" distributed spatial relational semantics of languages such as English is contrasted with the "overtly" distributed spatial relational semantics characterizing many other languages. Some common assumptions relating to the universality of the expression of spatial relational meaning by closed syntactic classes are criticized. A change of perspective from "local" to "distributed" (Sinha and Kuteva) (or "holistic": Zlatev) semantics permits the re-analysis of polysemy and item-bound "use-type" in terms of the distributed expression of language-specific spatial relational semantic types.

Data from collaborative research on children learning Danish, English and Japanese are presented, and it is concluded that the acquisition and development by children of spatial language is characterized by

- universal patterns and sequences based in conceptual development
- a universal learning strategy of conservative learning
- language specific patterns based upon the distributed spatial semantics of the target language.

23/9 13:15-15:00, H428b
Lecture 8: Space, time, metaphor and symbolic artefacts. Evidence from an Amazonian culture and language.

It is widely assumed that there is a natural, prelinguistic conceptual domain of time whose linguistic and cognitive organization is universally structured via metaphoric mapping from the lexicon and grammar of space and motion. My colleagues and I challenge this assumption on the basis of our research on the Amondawa (Tupi Kawahib) language and culture of Amazonia.

I first present a cognitive typological analysis of the Amondawa language, based on Talmy's well known distinction between verb and satellite framing, combined with Sinha and Kuteva's Distributed and Zlatev's Holistic spatial semantics. I then turn first to the expression of time in Amondawa, and then to the cultural linguistic system of time interval naming.

The Amondawa time interval system is based not on countable units, but on social activity, kinship and ecological regularity. It does not permit conventional "time-reckoning" since the number system has only two numerals with a maximum combinatorial value of four. The Amondawa do not entertain cardinal chronologies such as ages of individuals, or ordinal chronologies such as yearly or monthly calendars.

Using both observational data and structured field linguistic tasks, we show that linguistic space-time mapping is not a feature of the Amondawa language and is not employed by Amondawa speakers (when speaking Amondawa). Amondawa does not recruit its extensive inventory of terms and constructions for spatial motion and location to linguistically conceptualize temporal inter-event relations. As an alternative to the Universal (linguistic space-time) Mapping Hypothesis, we propose the socio-culturally motivated Mediated Mapping Hypothesis, which accords causal importance to the numerically based construction of time-based time interval systems and to use of the symbolic cognitive artefacts that support such interval systems.