Martin Monti (Department of Psychology, University of California, Los Angeles)

Title: *The role of language in structure dependent thought*

Abstract:

A central issue in the study of human cognition is the relationship between language and thought. At the heart of the discussion is the extent to which human thought is embedded in natural language. According to some views, language provides the very fabric of thought. On other accounts, however, many aspects of human thought may operate independently of language. In my research, I approach the issue by assessing the contribution (if any) of the neural mechanisms of language to other aspects human cognition. In particular, I will focus on the domain of deductive inference in the context of propositional logic and mental arithmetic. Overall, my findings suggest considerable independence between the structure-dependent operations of natural language and those of (some) other aspects of human thought.

Byron Ahn (Department of Linguistics, University of California, Los Angeles)

Title: *Twin reflexives*
Abstract:

English reflexive anaphors exhibit what seem to be two unrelated prosodic phenomena: "avoidance" of sentential stress in focus-neutral contexts like (1c), and "misplaced" focus prosody in answers to wh-questions like (2c):

(1) What happened at the party?
   a. Jenna tried to embarrass JACK.
   b.#Jenna tried to embarrass HERSELF.
   c. Jenna tried to EMBARRASS herself.

(2) Who introduced Moira to Charles?
   a. CHARLES introduced Moira to Charles.
   b.#CHARLES introduced Moira to himself.
   c. Charles introduced Moira to HIMSELF.

I show that these "exceptional" prosodic behaviors (i) are both constrained by the same set of syntactic factors, (ii) require movement of the anaphor to a reflexive VoiceP, (iii) are exhibited by only a subclass of English anaphors, and (iv) are in fact the predicted prosodic contours, in concordance with general principles of syntax-prosody mapping.

This prosodic data indicates that English grammar distinguishes subject-bound anaphors from non-subject-bound anaphors, as is attested through lexical differentiation in many of the world’s languages. The distribution of subject-bound anaphors is syntactically constrained, and, not coincidentally, those constraints match those that have been independently motivated for other languages, e.g. Romance se/si.

Friday, January 27

Robyn Orfitelli (Department of Linguistics, University of California, Los Angeles)

Title: Syntactic (in)variation in young children’s comprehension of A-movement

Abstract:

One of the longest running debates in acquisition involves how and when children acquire adult knowledge of structures involving A-movement. In English, comprehension of verbal passives like (1) is delayed until as late as 6 or 7 years old (Hirsch and Wexler 2006). This delay is widespread, occurring in Afro-Asiatic, Sino-Tibetan and Altaic languages as well as Indo-European ones. Certain other A-movement structures, including Subject-to-Subject Raising (StSR) utterances such as (2), have also been noted to be delayed in English and Dutch-acquiring children (Hirsch, Orfitelli & Wexler 2008 and references therein).
(1) Bill was kicked (by Karen).

(2) Bill {seems/appears} (to Karen) to be wearing a hat.

However, it is clearly not the case that children are delayed in acquiring A-movement tout corte, contra the original proposal of Borer and Wexler (1987). In the active voice, subjects A-move out of the verbal domain (e.g. Koopman and Sportiche 1991), yet children have no difficulties correctly placing the subject outside the VP (Stromswold 1996). More recent experimental work shows that children have a mastery of Subject-to-Object Raising from as young as 3 years old (e.g. Kirby 2010). Finally, in certain languages, most famously Sesotho (Demuth 1989), the verbal passive is purported to be acquired early.

This paper presents new data from a series of experimental studies on the acquisition of StSR in English. Based on these data, I propose the cross-linguistic Argument Intervention Hypothesis (AIH): children are delayed in acquiring exactly those structures which require A-movement across an intervening argument; namely, those which seem to violate Relativized Minimality (RM, Rizzi 1990) or a similar alternative formulation. I then discuss several substantial theoretical and typological predictions made by this account.

References


Friday, February 3

Leah Fabiano-Smith (Speech, Language and Hearing Sciences, University of Arizona)

Title: Which Comes First, the Stop or the Spirant? A Quasi-Longitudinal Study of Bilingual Children

Abstract: The stop-spirant alternation is a phonological rule in Spanish that changes the voiced stops /b, d, g/, when they occur in intervocalic position and after nasals, into spirants, or fricatives. For a number of years, the spirants [β, ð, ɣ] have been considered the surface form of their underlying voiced stop phonemes /b, d, g/ (Harris, 1993). However, more recently, Baković (1994) and Barlow (2003) have argued that Spanish-speaking children acquire the spirants /β, ð, ɣ/ prior to their acquisition of the voiced stops /b, d, g/. In addition, a high frequency of occurrence provides Spanish-speaking children with a greater number of opportunities to produce the spirants, making the spirants more fundamental to the language’s phonemic inventory (Barlow, 2003). Thus, there is a theoretical disagreement in the literature as to which sounds constitute the phonemic form and which constitute the surface, or allophonic, form.

Previous studies have examined acquisition of the stop-spirant alternation in bilingual Spanish-English speaking children from approximately 1-3 years of age (Macken & Barton, 1980; Fabiano-Smith, 2010). These studies have found that children might begin to distinguish voiced stops from spirants at approximately age 3;0, however, the stop-spirant alternation has not yet been mastered at this point (Fabiano-Smith, 2010). No studies to date have looked beyond that age level to determine when children might acquire this phonological rule and apply it consistently in an adult-like fashion. In addition, it is unknown if children acquire the voiced stops or the spirants first, which would shed light on the theoretical debate over which type of sound might be the underlying form.

The current study was exploratory in nature and examined bilingual children of different ages to determine (1) if bilingual children, overall, are more accurate on stops than on spirants or vice versa and (2) at what age bilingual children might begin to show mastery of the stop-spirant alternation.

Friday, February 10

Massimo Piattelli-Palmarini and David Medeiros (Department of Linguistics, University of Arizona)
Title: Steps towards the physics of language

Abstract:

In this talk we discuss how Fibonacci growth patterns and principles of optimization are apparent in the structure of human language. We moreover show how familiar dynamics yielding these sorts of patterns in nature may be taken to apply, at some level of abstraction, for the human faculty of language. The overall picture casts doubts on any simplistic treatment of language behavior, of the sort stemming from classical behaviorism in psychology (which is again popular in contemporary computational models). Instead, it appears to be more profitable to study language as a complex dynamic system, emerging in human brains for physical reasons which are yet to be fully comprehended, but which in the end disfavor any dualistic approach to the study of mind in general, and the human mind in particular. Our account converges with the vision of a deep, principled ahistorical kind of biology (Thompson 1917, Turing 1952; cf also Cherniak's "non-genomic nativism" and the "evo-devo" turn in modern biology), a theory of (possible) form rooted in very general principles of organization. In this case, starting from the observation that language is a discrete combinatorial system with ubiquitous intra-arboreal computations (long distance dependencies), and supposing that a constraint akin to "save wire" (cf Cherniak 2005) minimizes links in syntactic forms, myriad well-known and quite curious facts about human syntax follow. This is a plausible instance of "third factor" (Chomsky 2005) explanation; core properties of syntax come "for free, from physics". Several biological systems relevant to the present case are briefly examined: --the deep robustness of Fibonacci-based organization in phyllotaxis (across > 90% of plant species, Jean 1994) --Asymmetry in mammalian bronchial structure "consistent with a process of morphogenetic self-similarity described by Fibonacci scaling" (Goldberger, West, Dresselhaus, Bhargava 1985) --The organization of the dimers in eukaryotic cytoskeletal microtubules into a (5,8) Fibonacci spiral mode, proven by Koruga (1986) to provide optimal fidelity if the structures are conceived of as cellular automata transmitting information. --The distribution of the frequency bandwidths of EEG energy peaks in human cortical tissue are spaced according to the Fibonacci-related Golden mean. "In using phi [the golden mean] as a common ratio between adjacent frequencies in the EEG spectrum, the neocortex appears to have found a way to pack as many, minimally interfering frequency bands as possible into the available frequency space." (Roopun et al 2008). We suggest that Fibonacci-based structure in the abstract forms of human linguistic cognition may be another instance of this deep theme of principled ahistorical biology.

Friday, February 17

Mary Louise Kean (Department of Cognitive Science, University of California, Irvine)

Title: The critical period hypothesis revisited
Abstract:

(Work in collaboration with Benjamin A. Mis). The hypothesis that there is a critical or sensitive period for language acquisition has been debated since Lenneberg (1964) first posited it. While there is little argument that there is a sensitive period for segmental acquisition, in the domain of syntax there remains some debate. Since Johnson and Newport (1989), research on second language acquisition has played a central role in attempts to test the hypothesis. A central problem with most approaches is that most scholars view the notion of a critical period for syntactic acquisition in all-or-none terms. A second major problem is that most studies focus on pairs of languages, e.g., English-Dutch or English-Chinese, which leaves open the possibility that the findings may simply reflect the consequences of two specific languages in contact. A third problem is that few studies investigate specific aspects of language structure in detail. Experimental studies investigating English acquisition by native speakers of East Asian languages and native speakers of Spanish will be presented which support the notion of a sensitive period for aspects of syntactic acquisition.

Friday, February 24

Hadas Velan (Psycholinguistics Laboratory, Department of Psychology, University of Arizona)

Title: Lexical representation of printed words: Language specific or structure specific?

Abstract:

Although having an alphabetic writing system, previous studies suggest that basic orthographic effects, which are markers of visual word recognition in Indo-European languages, cannot be obtained in Semitic languages such as Hebrew and Arabic. These different result patterns were attributed to the different morphological structure of the two language families. Based on these results, it has been suggested that the mental lexicon of Indo-European and Semitic languages is organized and accessed in a different manner and that different models of printed word recognition are needed when describing the reading process of different language families. Recent studies show that the same orthographic effects obtained in Indo-European languages can also be obtained in Hebrew, but only in mono-morphemic words. These results imply that there is a qualitative difference in accessing words with and without an internal morphological structure. This difference is critical from a very early stage of the recognition process.

Friday, March 2

Heidi Harley (Department of Linguistics, University of Arizona)
Title: The preservation, translation and transcription of Hiaki (Yaqui): narratives of persecution, displacement and resistance

(Work in collaboration with Maria Florez Leyva)

Abstract:

About 30-35 years ago, Maria Leyva conducted a number of interviews in Sonora and Tucson with elderly Yaqui who had had personal experience of the warfare, persecution, deportation and oppression of the Yaqui in the early part of the last century, 1900-1930ish. The interviewees were young people and children during those events, and described their experiences and those of their families. She recorded the interviews on an inexpensive cassette recorder, and the resulting cassettes sat in her drawers at home for the next 30 years. Sometimes she would try to listen and transcribe them, but the poor sound quality of the recording and deteriorating condition of the tapes made it impossible.

She mentioned those tapes to me a few years ago, and two years ago Bill Beezley (of the History department) and I got a grant from the AHSS grant initiative, now the Confluence Center, to digitally remaster them, and transcribe and translate them. That work is now finished, and we’re starting to take stock and plan analyses of the material. It’s a fantastic treasure trove, an incredible first person account of those events from the Hiaki perspective. There are accounts of surviving in the mountains by the Rio Yaqui in Sonora, accounts of deportation to the Yucatan and years of living in the south with other conscript labor, and accounts of return to Yaqui territory. There are a lot of very affecting and interesting details: what women would do who had to deliver an infant in the bush; what conditions were like on ships going south to the Yucatan, etc.

They are also a phenomenal corpus, from a linguistic point of view, of natural Hiaki conversational data. The Hiaki interviews, before translation, comprise about 35000 words; more or less double that with the English translation.

We will give an overview of the project, its historical and linguistic significance, and talk about our plans for development and publication of the material.

Friday, March 9
Title: How many “normal” neurological organizations for language are there? At least two.

Abstract:

Sixty years ago, A. Luria noted that right handers with familial left handedness (RHFLH) recover from left-hemisphere aphasia relatively fast, and show crossed aphasia (right hemisphere lesion) more often than people with only right-handed family members (RHFRH). Since roughly 40% of people are RHFLH this is a significant finding. We report on recent behavioral and imaging studies exploring the possible neurological basis for the effect of familial handedness on language in right-handers. Our research so far has shown:

a) RHFLH people access lexical items more readily than local syntactic/semantic structures: the opposite is true of RHFRH people.

b) RHFLH people have an earlier critical period for language acquisition than RHFRH people.

c) RHFLH people show earlier activation of a lexical-ordering task in the right hemisphere than to a sentence creation task: RHFRH people do not show this difference.

d) It is possible to construct a genetic model of the probability that a person is left handed (pHL), based on 4,000+ 3-generation family handedness pedigrees.

e) RHFLH people show selectively greater right hemisphere early EEG activation to individual target words, as a function of their pHL.

f) The greater the pHL of a right hander, the stronger are the EEG inter-hemispheric coherence patterns (electrode sites in synchrony), and, independently, the weaker are certain coherences within the left hemisphere.

We will also report on new studies of differential processing of local ungrammatical sequences and of different kinds of grammatical clauses.

These studies suggest that the neurological organization for language in RHFLH people relies more on the right hemisphere, at least for lexical representations. We will discuss potential consequences for linguistic theory. The most interesting consideration is that if there is normal wide variation in how language is represented neurologically, this supports the idea that language capacity is not the result of a universal fixed set of neurological structures. Rather, on this view, syntax emerges as the (“perfect”) interface between a
large lexical capacity and existing semantic propositional relations: how the syntax is represented and enacted neurologically is variable depending on more global aspects of an individual's cerebral organization.

**Friday, March 19**

**SPRING RECESS**

**Friday, March 23  Joint colloquium with the Department of Philosophy**

Paul Pietroski (Department of Linguistics and Department of Philosophy, University of Maryland, College Park)

**Title:** 'I' Before 'E' in Semantics

**Abstract:**

Chomsky's distinction between I-languages and E-languages, which echoed Church's (Frege-inspired) contrast between two interpretations for the Lambda Calculus, is important for semantics in underdiscussed ways. After briefly reviewing this distinction, I'll illustrate its relevance for compositional and lexical semantics. In the first part of the talk, I'll discuss various conjunction operations, and ask which is the best candidate for being biologically implemented and invoked by at least some expressions that are generated by the human language faculty. As we'll see, a plausible answer suggests that from an I-language perspective, standard appeals to saturation (or function application) require empirical justification that is rarely if ever provided. In the second part of the talk, as time permits, I'll turn to some experimental results that can help adjudicate between extensionally equivalent hypotheses about the meanings of quantificational determiners like 'most'. The net result invites a conception of meanings as composable instructions for how to assemble concepts that can be combined (only) via a restricted range of logical/mathematical operators.

**Friday, March 30**

Roumyana Pancheva (Department of Linguistics, University of Southern California)

**Title:** Superlative movement out of nominal phrases and focus intervention effects

Joint work with Barbara Tomaszewicz, USC
Abstract:

We observe that superlatives inside nominal phrases (the most/best books) allow a reading in Slavic that is absent in English. Specifically, (1)/(2) cannot be interpreted as (1b)/(2b) in English, but in Polish, Czech, Serbian/Croatian and Bulgarian both (1a)/(2a) and (1b)/(2b) are possible interpretations.

(1) John has [the most [albums by U2]].
   a. Ö ‘JOHN has more albums by U2 than anyone else does.’
   b. * ‘John has more albums by U2 than he has by any other band.’

(2) John has [the best [albums by U2]].
   a. Ö ‘JOHN has better albums by U2 than anyone else does.’
   b. * ‘John has better albums by U2 than he has by any other band.’

Such (potential) ambiguities go hand-in-hand with semantic focus, i.e., the focused constituent (John or U2) determines the comparison class for the superlative (Szabolcsi 1986, Gawron 1995, a.o.). The same is true for Slavic (Živanović 2006, Bošković & Gajweski 2009).

We attribute the cross-linguistic difference to two factors. First, the English superlative quantifier -est QRs only inside the nominal phrase (in line with Farkas & Kiss 2000, Sharvit & Stateva 2002, and unlike Szabolcsi 1986, Bošković & Gajweski 2009). Its Slavic counterpart naj- can move out of nominals. Movement is conditioned by the presence of the definite article – obligatory in English, and either optional or altogether absent in Slavic. Second, a focus intervention effect obtains between DP-internal -est/naj- and DP-internal focus. Focus sensitive -est may not c-command the focused element while itself being c-commanded by the focus operator.
The results of this work contribute to current debates on the quantificational nature of degree expressions and on links between intervention effects and focus (Beck 2006).

Friday, April 6

Maria-Luisa de Zubizarreta (Department of Linguistics, University of Southern California)

Title: *The Origins of the low focus position*

Abstract:

Two dedicated syntactic positions for focus have been identified: a high position (above Tense) and a low position (between Tense and vP). We address the question of what is the nature of these positions, focusing primarily on the low position. An attempt will be made to relate this position to Aspect, where the function of aspect is to pick-out certain temporal slices of the event (Asp-T) or certain elements in the predicate-argument structure of the event (Asp-PS), where event is syntactically encoded by vP. To this end, we will examine briefly the pseudo-clefts constructions in standard and colloquial Castillian Spanish (Fernandez Soriano 2009) and then, more at length, the so-called “bare-copula” construction in Caribbean Spanish (Mendez-Vallejo 2009) and Italian "emarginazione" construction (Cardinaletti 2002, Zubizarreta 2010). We attempt to relate the syntactic analysis of these constructions to an updated version of the “structured meaning” view of focus (Chomsky 1976, Zubizarreta 1998, Krifka 2001, 2008), whereby focus involves two clauses (one which encodes the presupposition and the other one the assertion).

Friday, April 13

Elena Guerzoni (Department of Linguistics, University of Southern California)

Title: TBA

Friday, April 20

Cecile McKee and Merrill Garrett (Department of Linguistics and Department of Psychology)

Title: *Sentence Planning in Little Talkers*
Abstract:

The problem we address is sentence planning in 3-8 year-olds and adults. We measure planning via patterns of non-fluency in studies with and without modeling. Participants in the study without modeling observed stories and then directed a blindfolded experimenter to pick up one of two identical toys in each story. Participants in the imitation study repeated a puppet’s request for a toy after each story. Both studies tested the same four types of relative clauses (varying gap position and depth of embedding). We analyzed time to utterance onset; frequency, duration, and distribution of filled and unfilled pauses; and use of optional functional elements. There were reliable effects of structural complexity on non-fluency patterns in both experiments, with some informative shifts across methods. For example, unfilled pauses distributed similarly across age groups, structures, and methods. But filled pauses (primarily, um) differed. In the elicited production study, adults preferred filled pauses before utterance onset; children also used them in the locations preferred for unfilled pauses. In the imitation study, the incidence of filled pauses sharply declined: Adults and older children produced almost none; young children’s pattern was more similar to that of the elicited production study.

Our findings indicate similar planning processes for children and adults, but different degrees of advance planning. Adults tend to plan the whole message before beginning an utterance, and they do little message-level planning for imitation of a model. Young children do message-level planning mid-utterance and are less able to take advantage of a modeled utterance.

Friday, April 27

Carson Schutze (Department of Linguistics, University of California, Los Angeles)

Title: Issues with auxiliaries

Abstract: TBA