

Thursday Interdisciplinary Colloquium
Fall 2014-Winter 2015
Thursdays, 16:15-17:45, Webb 103

22.01.15

Björn Köhnlein

Leiden University / Ben-Gurion University

***The Interaction of Prosody and Segmental Structure
in Language Change***

Prosody, the structure above the individual sounds of a language (e.g. syllables, stress/foot structure, intonation), often interacts with segmental structure in language change. This talk discusses the complexity of such processes, with a focus on the relationship between vowel height/vowel duration, obstruent voicing, intonational tone, and abstract prosodic representations (syllable structure, foot structure). As I show on the basis of data from West Germanic, such interactions can lead to a variety of innovations in languages: for instance, intonational languages can introduce contrastive tone (similar to tonal languages); some stressed vowels can lengthen while others shorten at the same time; seemingly opaque phonological rules can emerge, as well as apparent cases of subtractive morphology.

The talk also addresses the question of how speakers integrate such novel patterns into the grammar. I shall argue that a more refined set of prosodic representations resolves many emerging problems and helps to improve our understanding of the interface between synchronic and diachronic phonology

15.01.15

Elitzur Bar-Asher Siegal

The Hebrew University

NP-Strategies for Expressing Reciprocity: History and Semantics

My paper focuses on NP-strategies for expressing reciprocity. Constructions included under this category are based on two criteria: 1) They share the same range of uses (to be demonstrated); 2) The encoding is non-verbal, i.e., verbs in the relevant constructions are transitive (unlike verbal encoding of reciprocity). Thus, (1a), a reciprocal sentence, which denotes a symmetric relation between its participants has the same predicate and argument structure as (1b):

- (1) a. James and Beth love each other
b. James loves Beth.

It has been repeatedly noted that, cross-linguistically, the same NP-expressions that encode symmetric relations (e.g., English *each other*) express other relations where strong reciprocity is impossible (Fiengo & Lasnik 1973, Dougherty 1974, Lichtenberk 1985, Dalrymple et al. 1998, Williams 1991, Beck 2001, Haas 2010, Evans et al. 2011). For example, the following sentence does not express a symmetric relation:

(2) They were hiding behind each other.

The situation of having different semantic functions for different sentences raises the following questions, phrased by Dougherty (1974: 18-19): "How is a specific input lined to a specific output? That is, what is the rule of semantic interpretation for *each other* sentences?... how specific interpretation (or range of interpretations) is assigned to an arbitrary sentence."

Dalrymple et al. (1998) propose that the meaning of the reciprocal sentences varies from one sentence to another and is taken from a small inventory of meanings. According to them it is possible to predict a context-sensitive meaning of every reciprocal sentence and that in a given context a sentence takes the strongest meaning that is consistent with known facts about the antecedent and the scope in the specific context. If the context is inconsistent with a high requirement, then a weaker meaning is assigned to the sentence.

In this talk I will argue for an opposite theory, that the NP-expressions do not encode reciprocity at all, and that in a given context they must be strengthened and interpreted as denoting symmetric relations. In order to support this claim I will provide ambiguities that were not discussed in the past, and also consider the historical origin of the constructions among the Semitic languages (discussed at length in Bar-Asher Siegal 2014) which can provide further support for my proposal.

01.01.15

Aya Meltzer-Asscher

Tel Aviv University

How the Brain Processes Different Dimensions of Argument Structure Complexity: Evidence from fMRI

Verbs are central to sentence processing, as they encode argument structure (AS) information, i.e., information about the syntax and interpretation of the phrases accompanying them. The behavioral and neural correlates of AS processing have primarily been investigated in sentence-level tasks, requiring both verb processing and verb-argument integration. In the current functional magnetic resonance imaging (fMRI) study, we investigated AS processing using a lexical decision task requiring only verb processing. We examined three aspects of AS complexity: number of thematic roles, number of thematic options, and mapping (non)canonicity (unaccusative vs. unergative and transitive verbs). Increased number of thematic roles elicited greater activation in left posterior perisylvian regions, claimed to support access to stored AS representations. However, the number of thematic options had no neural effects. Further, unaccusative verbs elicited longer response times and increased activation in the left inferior frontal gyrus, reflecting the cost of processing verbs requiring noncanonical argument mapping.

Joint work with Jennifer E. Mack, Elena Barbieri and Cynthia K. Thompson from Northwestern University.

25.12.14

Omri Abend

University of Edinburgh

Bootstrapping of Grammar from Sentence-Meaning Pairs

The semantic bootstrapping hypothesis concerning child language acquisition assumes that natural language grammars can be induced on the basis of exposure to strings of the language paired with structured representations of their meaning. The talk will discuss a computational model of semantic bootstrapping that learns a language-specific grammar on the basis of exposure to (contextually ambiguous, possibly somewhat noisy) sentence-meaning pairs.

I will argue that under certain assumptions about the nature of the universal mapping between syntax and semantics, a simple statistical model of a kind familiar from wide-coverage statistical parsing, allows children to acquire the grammar of their first language. I will present results on experiments with the Eve section of the CHILDES corpus. Notably, the model exhibits a form of "syntactic bootstrapping", namely previously learned constructions are used to accelerate the learning of unseen words. The linguistic notion of "parameter" seems to be epiphenomenal to this learning process.

Joint work with Nathaniel J. Smith, Tom Kwiatkowski, Sharon Goldwater and Mark Steedman.

18.12.14

Colin Philips

University of Maryland

***Cognitive Mechanisms for Encoding and Navigating
Structured Linguistic Representations***

Sentences have structure. How these structures are mentally encoded and manipulated is less clear. This talk focuses on recent evidence that helps to provide some answers. The task of creating a sentence structure may be understood as a process of (i) incrementally assembling a structured memory representation, (ii) rapidly accessing targeted pieces of that memory representation, and (iii) using the memory representation to guide the further elaboration of that representation. The real-time implementation of linguistic constraints has proven to be an effective tool for understanding these mechanisms, especially due to the finding of "selective fallibility". Some linguistic constraints are faithfully and reliably implemented in real time, others are not, giving rise to "linguistic illusions." This uneven profile provides important insights into the nature of the representations and the nature of the access mechanisms, and new discoveries are leading us to revise our views on these topics. We have uncovered ways to 'turn off' robust linguistic illusions, and we have uncovered ways to 'turn on' illusions in domains where we previously saw no illusions. These findings lead to a new conception of how structured representations are mentally encoded and navigated.

11.12.14

Hadas Kotek

McGill University

Two Arguments for Partial Covert Wh-Movement in English Questions

Covert *wh*-movement is normally believed to be an unbounded, long-distance movement, similar to its overt counterpart. In the multiple question in (1a), the *wh*-phrase 'which student' is fronted out of an embedded clause, while the *wh*-phrase 'which professor' is pronounced in-situ, in its base-generated position. Much work has suggested that the (surface) in-situ *wh*-phrase in (1a) undergoes covert *wh*-movement, so that it occupies a position near the overtly fronted *wh*-phrase at LF (Karttunen 1977, Huang 1982, a.o.), (1b).

- (1) a. Which student did Mary say that Sue introduced ___ to which professor?
b. LF: [which student]₁ [which professor]₂ did Mary say that Sue introduced t₁ to t₂?

I will argue that covert *wh*-movement indeed occurs in questions like (1) but that it should be thought of as a more restricted, local operation, similar to scrambling in languages like German. The arguments come from online sentence processing and from the behavior of multiple *wh*-questions with syntactic islands. I show that covert *wh*-movement at the very least can, and sometimes must, be a short movement step targeting a position other than the one targeted by overt *wh*-movement in the same structure. I will conclude by discussing some implications of this proposal for cross-linguistic typology and for the acquisition of *wh*-questions.

04.12.14

Stephen Schiffer

New York University

The Impossibility of Gricean Semantics

Gricean semantics is a program for reducing all questions about linguistic representation to questions about mental representation. It's the only program that attempts to show in detail how the semantic properties of marks and sounds are inherited from the contents of propositional attitudes. The program begins by defining a certain notion of speaker-meaning in wholly non-semantic terms as a species of goal-directed intentional behavior in which a person acts with the intention of producing belief or action in another in a certain way. This account of speaker-meaning is the core of the Gricean's notions of both saying and implicature, but the initial attraction of many to the Gricean program is that they discern in its account of speaker-meaning an invisible hand that leads ineluctably from that account to an account of expression-meaning in terms of it. After explaining how the Gricean invisible hand is supposed to work, I will show why it can't work. This negative result may further our understanding of language understanding.

Lior Laks

Bar-Ilan University

***Morpho-Thematic Transparency: Instrument Noun Formation
in Hebrew and Its Relation to the Verbal System***

This talk examines morphological variation and change in the formation of instrument nouns (INs) in Hebrew. Such variation is demonstrated below:

Morphological variation of INs

<i>maxded</i>	<i>mexaded</i>	'pencil sharpener'
<i>makrer</i>	<i>mekarer</i>	'refrigerator'
<i>magresa(t)-kerax</i>	<i>gores-kerax</i>	'ice-crusher'

In the examples above, both INs share the same stem consonants and are formed in different templates. *maxded*, for example, is formed in *maCCeC* while *mexaded* is formed in *meCaCeC*, and both nouns share the consonants *x-d-d*. In some cases both forms are used and considered normative, while in others one form is considered normative and the other is not. Following Bolozky (1999, 2003), I argue that INs tend to change into templates that are identical to the participle form of the corresponding verb. While both *maxded* and *mexaded*, for example, share the same nominal meaning, only *mexaded* has a verbal meaning of 'sharpens/is sharpening.' I argue that the change targets both morphological and thematic transparency ('morpho-thematic transparency') between the IN and the related verb.

Examination of the data reveals that participle templates are used almost exclusively to the formation of new INs and in the change of existing INs. The change is always from one of the non-participle templates into a participle template and never the other way around. Nonetheless, not all INs change their template. I contend that the transition to the participle templates can be predicted based on systematic criteria. Thematically, the participle IN corresponds to the argument structure of the verb and to the thematic roles that it assigns (Rappaport Hovav & Levin 1992, among others). The IN has to be agentive in order to be thematically transparent and undergo a morphological change. The more transparent the thematic relation between the verb and the IN is, the greater the chance for morphological change. Morphologically, the formation of the participle form is more transparent as it requires fewer changes between the verb and the IN. The only changes that occur are affixation and changing the vowels of the base verb, and the formation in the participle templates preserves the prosodic structure of the base verb. The study adds to previous accounts of morphological changes that take place cross-linguistically in different domains. It enables to shed more light on the motivation for such change both from morphological and semantic-thematic perspectives.

20.11.14

Marie-Christine Meyer

The Hebrew University

When and How Implicatures Make You More Efficient (When Talking)

In this talk we will be concerned with the relationship between structural complexity (e.g., Katzir 2007) and implicature. Structural complexity can be seen as a measure of effort. As such, it is expected to be subject to economy conditions. A natural condition to assume here is what I call Efficiency (Meyer 2013): Extra complexity needs to be licensed by effects at the level of meaning.

Thus, consider the minimal pair below:

- (1) a. Mary drank some of the beers
b. Mary drank some or all of the beers

Under standard assumptions, the two structures are predicted to be semantically equivalent. (1b) therefore seems to violate Efficiency and should be ruled out, contrary to fact.

In this talk, I will develop a theory under which seemingly inefficient structural complexity as in (1b) is in fact licensed by grammatical implicatures, i.e., a semantic effect. We will investigate how this compares to the two standard theories of implicature (viz., the grammatical and the Neo-Gricean theory) without presupposing familiarity with these theories.

13.11.14

Roey Gafter

Tel Aviv University

***Socially Meaningful Variation in Hebrew Consonants:
Authenticity and Ethnic Identity in the Tel Aviv Area***

Among Israelis, Jewish ethnicity is usually understood as a dichotomy between *Ashkenazi* Jews (Jews of European descent) and *Mizrahi* Jews (Jews of Middle Eastern descent). While this distinction is extremely socially salient in Israel, not much is known about how these categories related to linguistic variation. In this dissertation, I explore the interaction of Hebrew phonetic variables with ethnicity, and show that framing ethnicity as an Ashkenazi-Mizrahi binary hides many meaningful distinctions, both linguistically and socially. I challenge the notion of an ethnolect, and claim that while there is no single distinctive "Mizrahi Hebrew," certain linguistic features are associated with particular aspects of a Mizrahi identity, and can be used in the construction of specific ethnic personae.

My main source of data is sociolinguistic fieldwork in two field sites in the greater Tel Aviv area, which have decidedly different Mizrahi populations: the first is Rosh Ha'ayin, a town whose population is predominantly of Yemenite heritage. The second is Tel Aviv proper, which has an extremely mixed population. I explore pharyngealization, the feature most stereotypically associated with Mizrahis, which all extant research suggests has been lost in the speech of most

contemporary Israelis. I demonstrate that contrary to received wisdom, there are still some younger Mizrahis in my sample with robust pharyngealization, but only among the Yemenites of Rosh Ha'ayin, who express overt language ideologies about the link between this conservative linguistic feature and an authentic Yemenite identity.

Furthermore, while pharyngealization is very uncommon among most younger Mizrahis, I show that it is enregistered as a Mizrahi feature, and that Mizrahis who do not consistently pharyngealize, still do so when performing attributes associated with a stereotypical Mizrahi persona (such as being down-to-earth and authentic). I argue that this feature's salience in the speech community makes it a stylistic resource with an indexical value that goes far beyond an ethnic marker.

Finally, focusing on speakers who merge /ħ/ (the voiceless pharyngeal fricative) and /x/, I show that the *acoustic* properties of the merged non-pharyngeal phoneme differ among speakers – for some speakers the merged “fricative” is often a trill. Crucially, the social distribution of trilling and how it relates to ethnicity is different in the two field sites, and once again highlights the need to move beyond binary categories.

06.11.14

Hadas Yeverechyahu

Tel Aviv University

***The Role of Similarity in Co-Occurrence Restrictions:
Evidence from the Hebrew Verbal System***

In Semitic languages, homorganic consonants tend not to co-occur within the same stem (**datam*, **kagam*). Previous studies (mainly on Arabic) attributed these restrictions to similarity effects, i.e. the greater the similarity between two (homorganic) consonants, the less likely they are to co-occur.

In this talk, I discuss co-occurrence restrictions in the Hebrew verbal lexicon, and their correlations with similarity. A lexical analysis of two Hebrew verb classes (*kal* and *pi'e*) was conducted, as well as two experiments on native Hebrew speakers (a lexical decision and word-likeness judgments tasks). The results were analyzed with respect to an application of Frisch et al's (2004) similarity model to Hebrew.

The results show co-occurrence restrictions of consonants both in the Hebrew lexicon and in the grammatical system of the speakers. These restrictions are strongly correlated with the similarity model, and suggest a tendency to avoid similar consonants in proximity. The results suggest that similarity affects the speakers' word likeliness judgments, but they cannot tell whether the influence of similarity is direct, or indirect through the lexical influences on the grammatical system.

The talk will be delivered in Hebrew.