

**Thursday Interdisciplinary Colloquium**

**Fall 2019-Winter 2020**

*Thursdays, 16:00-17:30, Webb 103*

**23.01.20**

**Outi Bat-El**

Tel Aviv University

***Universal Principles and Statistical Learning in Phonology:  
Evidence from Early Hebrew Speech***

Both *usage-based linguistics* and *generative linguistics* grant children with essential tools for the acquisition of their first language. According to the usage-based approach (Tomasello 2001, 2003), children manipulate the general cognitive toolbox, which allows them to draw generalizations and construct a grammatical system on the basis of the input provided by the ambient language. Within this approach, statistical learning (Saffran et al. 1996) is a prominent mechanism exploited by children. Like the usage-based approach, the generative approach holds that children are equipped with “data-handling” and “hypothesis-formulating abilities” (Chomsky 1959), where some of these abilities may involve statistical learning and other pattern-detecting strategies. However, in addition to this general cognitive toolbox, children manipulate a toolbox that includes principles specific to language; these principles are the focus of the generative enterprise. With this additional component in the system, the burden of proof is on generative linguistics, and I am planning to take on this burden.

In order to promote the role of universal principles in phonology, I will show that: (a) the less frequent stress pattern is the first to appear in children’s speech, and (b) children assume moraic coda although without data promoting it. In order to emphasize the reduced impact of statistical learning, I will show that the differences between the twin boys (with regard to stress, segmental development, and verb suffixes) is similar to that between non-siblings. That is, identical input may lead to very different output.

When concluding, I will emphasize that this is not a case of “either-or” – both universal principles and statistical learning are essential for language acquisition and language knowledge. Our research question must then address the interaction between universal principles and statistical learning (and not who is the winner).

16.01.20

**Mor Haim**

Tel Aviv University

***Phonology-Morphology (A-)Synchronization:  
Typical vs. Atypical Development***

The talk will introduce differences between typical and atypical language development and account for them in terms of *(a-)synchronization* between phonological and morphological development.

A major characteristic of atypical language development is deviation from one or more typical patterns, often in addition to a delay in development. Bat-El (2009) proposed that some deviant phonological phenomena can be accounted for by a-synchronization between layers of representation (assuming the hierarchy of the prosodic word), where the development of one layer lags behind the other. In this talk, I will present a case study of an atypically developing child, whose phonological development lags behind his morphological development.

The empirical basis of the study is drawn from longitudinal studies of Hebrew-acquiring children – one of whom is a slow developer (atypical). Two cases of phonology-morphology interaction will be addressed: (i) final codas and the plural suffix *-im*, and (ii) the prosodic word in terms of number of syllables and the 1<sup>st</sup> person singular suffix *-ti*.

According to the Prosodic Licensing Hypothesis (Lleó 2003, Demuth 2007), phonology is a prerequisite for morphology. For example, the production of *-im* (morphology) requires final codas (phonology). However, our data suggest that this is not always the case in slow phonological development, where morphology might advance despite the limited prosodic structure. This a-synchronization between phonological and morphological development yields a deviant phenomenon, which is not found in typical development, where morphologically complex forms are prosodically more advanced than morphologically simple forms. These findings are formally analyzed within the framework of Optimality Theory (Prince & Smolensky 1993), supporting the recursive prosodic structure for morphologically complex words (Ito & Mester 2009).

09.01.20

**Noa Handelsman**

Tel Aviv University

***Category-Specific Phonology in the Acquisition of Hebrew***

In Hebrew, noun-stems and verb-stems are prosodically restricted – they are usually disyllabic with final codas. These prosodic restrictions are identical for nouns and verbs such that they may be indistinguishable; for example, *katav* means both 'a reporter' and 'to write 3SG.MSC.PST'. The contrast between nouns and verbs emerges with the morphological paradigm, as nouns and verbs employ different suffixes and different

morpho-phonology (Bat-El 2008). However, these morpho-phonological means to distinguish between nouns and verbs are not available during early speech, when children produce stem-like forms without overt morphological structure (Levy 1980, Armon-Lotem & Berman 2003, Adam & Bat-El 2009).

The talk will address the contrast between nouns and verbs in children's productions during this morphology-free period, when nouns and verbs are produced without the morphology that distinguishes between them. The question addressed is whether children make an overt distinction between nouns and verbs during this period, and if so, how.

To address this question, the spontaneous productions of 3 Hebrew-acquiring children were examined with reference to the development of their lexicon, phonology (codas and number of syllables), and morphology (suffixes). The findings suggest that *during the period when the productions are morphology-free, children use their own phonological strategy to distinguish between nouns and verbs*. This is a case of Category Specific Phonology, often found in adults' systems, whereby nouns and verbs adhere to different phonological patterns and thus different phonological grammars (McCarthy & Prince 1995, Smith 1997, Antilla 2002, Bat-El 2008).

## 02.01.20

**Aron Hirsch**

McGill University & The Hebrew University

***Deconstructing Only***

In (1a), *only* appears on the clausal spine and, given the parse in (1b), attaches to a constituent denoting a proposition. Accordingly, *only* can be interpreted with the classical meaning in (2): *only* applies to a 'prejacent' proposition  $p$ , introduces the presupposition that  $p$  is true, and asserts that alternatives to  $p$  are false.

- (1) a. Mary only read one book.  
 b. [<sub>TP</sub> Mary<sub>1</sub> [only [t<sub>1</sub> read one<sub>Foc</sub> book]]]

$$(2) [[\text{only}]]^{\text{ALT}} = \lambda p_{\text{st}} . \lambda w : p(w) . \forall p' \in \text{ALT} [p'(w) \rightarrow p \subseteq p']$$

In other data, however, *only* surfaces in different linear positions, including those off the clausal spine, as in (3), where *only* precedes an object DP. To compose, it appears that *only* requires a different meaning, taking not a proposition as argument, but rather a quantifier. Rooth (1985) proposed that *only* was systematically ambiguous between (2) and a range of further meanings of higher semantic types, one of which takes a quantificational input.

- (3) Mary read only one book.

In this talk, I will argue that just a meaning like (2) is available, despite appearances. I will propose that when *only* appears pre-DP, the source of meaning is a covert propositional operator. Overt pre-DP *only* is itself a semantically inert focus marker, reflecting concord with the covert operator. The sentence in (3) has an LF like the one sketched in (4). The analysis will predict a range of facts involving scope and ellipsis licensing which would not be expected if *only* and the DP directly composed.

(4) [<sub>TP</sub> Mary<sub>1</sub> [**ONLY** [<sub>t<sub>1</sub></sub> read [only [one<sub>Foc</sub> book]]]]]]

There is transparent morphological evidence that “only” constructions in Dutch (Barbiers 2014) and Vietnamese (Hole 2013, 2017; Erlewine 2017) have a bipartite syntax, with one head on the clausal spine, and one more local to the focus. This talk will reason about meaning to a similar conclusion, showing that when *only* surfaces off the clausal spine, the semantic contribution must be made by a separate operator at a distinct syntactic site, on the clausal spine (adding to Lee 2004; see Horvath 2007, Cable 2010, Hole 2015, Bayer 2016 for further related results).

**26.12.19**

**Itai Bassi**

MIT

***On Sloppy Non-Pronominals in Focus Contexts***

Geach (1962) observed that proper names cannot give rise to sloppy-identity interpretations the way pronominal elements do. (1) does not have the salient sloppy reading of “Only Mary praised herself”.

(1) Only MARY praised Mary (based on Geach 1962)

\*Sloppy: *No one other than Mary praised themselves.*

But Roeper (2006) discovered that names, definites, and indefinites – in fact any lexical category – can, in certain cases, give rise to these readings in focus contexts. In a class reunion after 20 years, one can say:

(2) Only MARY still looks like Mary. (based on Roeper 2006)

...and mean that no one other than Mary looks now the way **they** did 20 years ago.

Current theories of variable binding undergenerate sloppy readings of non-pronominals. I will propose a grammatical mechanism able to capture them, building on Kratzer’s (1991) theory of focus-binding but modifying its assumptions about the underlying syntax: Focus-variables can be freely reused. The account has to also explain what makes Roeper’s cases special, i.e. why sloppy non-pronominals are normally unattested (Geach’s claim). A key observation is that in Roeper’s cases, the non-pronominal and its

antecedent refer to different instantiations ('slices'/'guises') of the same individual. On the intended reading of (2), for example, the object NP refers to Mary-as-she-was-20-years-ago, while the subject refers to Mary-in-the-utterance-time. In (1), in contrast, the subject and object are not perceived to differ in reference in the same manner. Guided by this observation, I will negotiate a path towards explaining the distribution of sloppy non-pronominals.

**19.12.19**

**Chris Kennedy**

University of Chicago

***Expressing Experience: Not Necessarily 'Stoned', But 'Beautiful'***

It has been frequently observed in the literature that assertions of sentences containing predicates of personal taste like 'tasty' and 'fun' give rise to an acquaintance inference that is not present in assertions of sentences containing non-subjective predicates. An utterance of "sea urchin is tasty," for example, implies that the speaker has first-hand experience of the taste of sea urchin, but an utterance of "sea urchin is orange" does not imply first-hand experience of the color of sea urchin. The goal of this talk is to develop and defend an expressivist-inspired account of this phenomenon: Acquaintance inferences arise because plain sentences containing subjective predicates are designed to express distinguished kinds of mental states, which differ from beliefs in that they can only be acquired by undergoing certain experiences. Our account is rooted in a fundamentally descriptivist semantics, with the expressive component emerging out of a generalization of the felicity conditions on assertion, and so does not run afoul of traditional objections to expressivism. We show that the resulting framework accounts for a range of data surrounding acquaintance inferences, as well as for striking parallels between acquaintance inferences in subjective predication and the kind of considerations that have fueled expressivist accounts of moral and aesthetic language.

**12.12.19**

**Giorgio Magri**

CNRS and University of Paris 8

***A Subregular Approach to the Problem of Learning Underlying Representations***

Phonological representations are usually discrete objects: tuples of feature values, concatenations of such tuples, auto-segmental graphs constructed out of these feature values, etc. Dealing with discrete objects is difficult because only very little "structure" is defined on them. The core idea of constraint-based phonology is to circumvent this difficulty by describing discrete phonological representations as numerical vectors in the space of constraint violations. Phonological analysis can then take advantage of the rich geometrical structure defined on the space of constraint violation

vectors. This talk illustrates this geometric approach to phonological analysis through two examples. The first example uses a basic result of linear programming (Farkas lemma) to derive Tesar's theorem on the opacity/transparency of Harmonic Grammar and Optimality Theory. The second example exploits the different convex geometry underlying MaxEnt and Stochastic (or Noisy) Harmony Grammar to compare their typological richness from the perspective of uniform equiprobable phonological mappings.

**09.12.19**

**Adam Jardine**

Rutgers University

***A Subregular Approach to the Problem  
of Learning Underlying Representations***

A fundamental assumption of generative phonology is that surface alternations are the result of a phonological grammar operating on a set of underlying representations. These underlying representations are abstract in the sense that they are distinct objects from surface representations, and thus are not directly observable. This raises a learning problem: How does a child infer these underlying representations and a grammar from a set of alternating surface representations? This is a central problem in phonological theory that only recently has seen progress (Tesar 2014, Rasin et al. 2018). In this talk, I will discuss how the perspective of subregular phonology – which posits restrictions on the computational complexity of phonological patterns (Heinz 2018) – offers a solution to this problem.

The input to a phonological learner can be viewed as a function from strings of morphemes to strings of segments (the surface representations). The problem of learning underlying representations and a grammar can then be viewed as functional decomposition: identifying a function from (strings of) morphemes to underlying forms (i.e., the lexicon), and a function from underlying forms to surface forms (i.e., the phonological grammar), whose composition generates the input data. The space of possible decompositions can be made tractable by assuming the constituent functions belong to certain subregular classes of functions.

In particular, this talk will discuss how a learning procedure which assumes the lexicon and phonology functions are input strictly local functions (Chandlee 2014, Chandlee & Heinz 2018) can correctly infer a set of underlying representations and a phonological grammar given data exhibiting a number of basic phonological processes. This is accomplished by drawing on provably correct techniques for inducing functions from highly structured classes from positive examples (Jardine et al. 2014). The procedure is thus quite general and can in future work be generalized to non-local functions, featural representations, or probabilistic processes. The upshot is that restrictive computational principles, combined with major principles in phonological analysis, allow for significant progress in

understanding how phonological grammars and URs are learned.

This talk draws from work done in collaboration with Wenyue Hua and Huteng Dai (Rutgers University).

**05.12.19**

**Alex Grosu**  
**(in collaboration with Koji Hoshi, Keio University)**  
Tel Aviv University  
***A Partially Unified Analysis of***  
***Japanese Internally and Doubly-Headed Relatives***

Japanese has three syntactic types of relative constructions: [i] externally-headed (EHRCs), [ii] internally-headed (IHRCs), and [iii] doubly-headed (DHRCs).

EHRCs are discussed in any textbook on Japanese grammar; IHRCs have been abundantly discussed in the theoretical literature (giving rise to a number of competing analyses); and DHRCs have been occasionally mentioned in the earlier literature, but never analyzed (prior to Grosu & Hoshi in press).

The first part of this talk will present and illustrate three common properties of IHRCs and DHRCs, which set them apart from EHRCs; it will also note and illustrate four other properties of IHRCs which are not shared by DHRCs (nor by EHRCs or by discourses that include an anaphoric dependency).

The second part of the talk will present an analysis of DHRCs that captures their properties hinted at in the preceding paragraph, in particular, those shared with IHRCs, by adapting to DHRCs the kind of analysis of IHRCs proposed in Grosu & Landman (2012) and Landman (2016).

The third part of the talk will argue that a close consideration of the properties of DHRCs can shed light on certain properties attributed by Kitagawa (2019) to IHRCs, which, he claimed, challenge Grosu & Landman's analysis.

Grosu, Alexander & Fred Landman. 2012. A quantificational disclosure approach to Japanese and Korean internally headed relatives. *Journal of East Asian Linguistics*, 21, 159-196. DOI: <https://doi.org/10.1007/s10831-011-9086-z>.

Kitagawa, Chisato. 2019. The *pro*-head analysis of the Japanese internally-headed relative clause. *Glossa: A Journal of General Linguistics*, 4(1), 62. 1-31. DOI: <https://doi.org/10.5334/gjgl.857>.

Landman, Fred. 2016. Japanese internally headed relatives: A hybrid analysis with Kuroda Functions. *Glossa: A Journal of General Linguistics*, 1(1), 36. 1-35. DOI: <https://doi.org/10.5334/gjgl.153>.

Grosu, Alexander, & Koji Hoshi. In press. Japanese internally-headed and doubly-headed relative constructions, and a comparison of two approaches. *Glossa*

2019.

**28.11.19**

**Ilil Baum**

The Hebrew University

***What Can Jewish Languages and Creoles  
Teach Us on Language Evolution?***

If anything, the emergence of Judeo-Spanish, Yiddish, Judeo-Arabic, and other Jewish ethnolects or 'religiolects' (Hary 1992, Hary & Wein 2013), demonstrates the general processes of language evolution, while highlighting the importance of ecologies for the birth and death of languages (Mufwene 2001, 2008). Jewish languages, much like Creoles, are interesting case studies for language contact and language evolution among minority and discriminated groups in intensive contact situations and upon extreme conditions, such as traumatic expulsions, colonization, and slavery.

My research concentrates on understanding the emergence of Jewish languages within similar ecologies, ever since late antiquity, throughout the Middle Ages, Modern period, and some would say even in contemporary context, as has been defended regarding 'Jewish English' (Benor 2009). I am particularly interested in the case of the Jews of Spain, before and after their expulsion in 1492.

In this talk, I will first briefly introduce what 'Jewish languages' are, and debate the justification for this distinctive category. I will then present my work on Jewish 'religiolects' or repertoires from the Iberian Peninsula, by means of examples of language contact in the years prior to the expulsion of the Jews in 1492, and suggest my hypothesis regarding the emergence of post-expulsion Judeo-Spanish. I will use the case study of Judeo-Spanish in order to compare the ecologies of the emergence of Creoles and Jewish languages, with emphasis on the sociocultural and historical conditions, and discuss what this could teach us on language evolution, especially among minority groups.

**21.11.19**

**Vered Zilberstein**

Tel Aviv University

***Semantic Characteristics of Schizophrenic Speech***

Natural language processing tools are used to automatically detect disturbances in transcribed speech of schizophrenia inpatients who speak Hebrew. We measure topic mutation over time and show that controls maintain more cohesive speech than inpatients. We also examine differences in how inpatients and controls use adjectives and adverbs to describe content words and show that the ones used by controls are more common than those of inpatients. We provide experimental results and show their potential for automatically detecting schizophrenia in patients by

means only of their speech patterns.

**14.11.19**

**Todd Snider**

The Hebrew University

***Informative Counterfactuals***

Imagine you are at the office one morning, and you overhear someone utter the sentence in (1).

(1) If Alice had gone to the party, Bob would have stayed home.

If you take the speaker to be telling the truth, you come to know a few different things: There was a party; Alice (probably) wasn't there; Bob (probably) was; and most importantly, there is some sort of connection between Alice's going to the party and Bob's going to the party. But what is the nature of this connection? Does the semantics of counterfactual constructions like (1) constrain the space of possible relations between the antecedent and consequent?

In this talk, we present a number of possible types of explanations and argue that English counterfactual constructions in fact disallow some explanations, and privilege some licit explanations over others. Using Structural Equation Modeling (à la Pearl 2000) and an enriched notion of possible worlds (Starr 2012), we show how counterfactuals can informatively update the common ground without making reference to accessibility relations or similarity, and in doing so, how some sets of counterfactuals can be jointly incompatible.

**07.11.19**

**Danny Fox**

MIT

***Cell Identification and the Duality of Questions***

In a recent paper (SuB 2018) I argued that the presupposition of questions should be understood as a consequence of what I called the duality of questions: the fact that in the semantics, a question denotes a set of propositions that are not necessarily mutually exclusive, and the observations that a question needs to partition the common ground (and hence be associated with a set of mutually exclusive propositions). In this talk I will explore this claim further through a puzzle about the presuppositions of degree questions pointed out by Gentile and Schwarz (SuB 2017).

31.10.19

**Fred Landman**

Tel Aviv University

***Mess Mass Measure and Neat Mass Measure***

This talk is concerned with the semantics of neat mass nouns, mass nouns like *pottery, furniture, livestock, and poultry*.

There is, in the earlier literature on mass nouns – e.g., Bunt 1980, 2006 (following Quine 1960) – a widespread assumption about neat mass nouns, that they are *semantically* no different from count nouns and that the only difference is that neat mass nouns *grammatically* lack a feature +COUNT.

Against this it was argued by Rothstein 2011 and Landman 2011 (as well as by others), that neat mass nouns are *semantically* different from count nouns in that they, unlike count nouns, allow measure comparison interpretations.

There is, however, a snag in the argument: Singular count nouns also allow measure comparisons interpretations, when their interpretation is downshifted (i.e., when they have a *grinding* interpretation). This means that, *if* we can attribute the measure comparison interpretations for neat mass nouns to downshifting, Bunt may be right after all, and neat mass nouns do pattern with (singular) count nouns.

I will argue in this talk that while indeed neat mass nouns allow measure comparison interpretations under downshifting, neat mass nouns, *unlike* count nouns, *also* allow measure comparison interpretations that do *not* involve downshifting.

The argument will be made in the context of a Guided Tour of Iceberg Semantics, as laid out in my forthcoming book. At the end of the talk we will reach the conclusion that the Rothstein-Landman observation does hold: Neat mass nouns are *semantically* different from count nouns *and* from mess mass nouns (nouns like *time, meat, and water*).