

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

18.06.15

Iddo Berger
Tel Aviv University
Learning Rule-based Morpho-phonology

We present a comprehensive framework for learning rule-based phonological systems from raw surface forms. Using an evaluation metric based on the principle of Minimum Description Length (MDL), the learner performs morphological segmentation simultaneously with inducing a phonological grammar (including a lexicon and a set of ordered rules). We will present simulation results demonstrating the ability of the learner to tackle challenges such as rule ordering, opacity, and optionality.

11.06.15

Moshe Elyashiv Bar-lev
The Hebrew University
De Re Tenses in English and Hebrew and Trace Conversion

It has long been observed that a Past complement clause embedded under a Past attitude verb (Past-under-Past) in English can have either a simultaneous or a backward-shifted reading with respect to the attitude time, but it cannot have a forward-shifted reading. This phenomenon is known as Sequence of Tense (SOT). Additionally, a Present complement clause embedded under a Past attitude verb (Present-under-Past) has only the *double access* reading (DAR).

Three main (non-exclusive) accounts were proposed in the literature: (i) deletion-rules; (ii) pragmatic approaches; (iii) a *de re* mechanism. I focus on two *de re* approaches (Ogihara 1996 and Abusch 1997) and show that they yield problematic results either for tenses embedded under universal quantification over individuals or times or with ellipsis, or for simultaneous readings of Past-under-Past in 'non-SOT languages' like Hebrew. However, the latter issue also serves as an argument in favor of *de re* approaches over pragmatic ones, leading to a new *de re* account.

I claim that the *de re* interpretation of tenses in attitude contexts should be restricted such that the event-time of the embedded clause *include* the local evaluation time (i.e., the 'now' of the attitude holder). I further claim that this is predicted if we assume that tenses are generalized quantifiers that quantify over the set of times that include their local evaluation time and that the Trace Conversion rule suggested by Fox (2002) applies to temporal quantifiers.

04.06.15

Olga Aizenberg
The Hebrew University
Complex Sentence Comprehension in Healthy and Dyslexic Adults

The current research deals with the effect of task properties on complex sentence comprehension in dyslexic adults.

First, we aimed to determine the factors which affect comprehension rate of complex sentences in adults from the general population. Specifically, we showed that comprehenders were able to efficiently differentiate between tasks which required only the processing of basic features in a sentence (i.e., the identity of the characters or the verb used in a sentence) and tasks which required more effortful processing of relations between these features (i.e., who did what to whom?). Furthermore, the rate of the comprehension of the relations in a sentence (high-demand task) was not dictated by the sentences' syntactic structure, but rather by the sequence of the task-relevant information embedded in these sentences.

As a next step, we were interested in the conditions which could reduce the processing cost (measured by response time) of complex sentences in the context of high-demand tasks. There is vast evidence that normal and dyslexic participants show a differential pattern of processing when encountering structural repetition in various tasks. When no such repetition is present, performance does not differ between the groups. However, when the stimuli include structural repetition, normal adults tend to benefit from it to improve their performance, while dyslexics fail to do so.

Now, we assessed normal adults' ("controls") and dyslexics' complex sentence comprehension. We found that dyslexics showed the same processing patterns as controls in sentences which did not include any structural repetition. However, when we included a significant repeating component in the sentences, controls benefited from it and processed the sentences faster, while dyslexics did not. This finding is in line with previous findings from various domains, leading us towards the characterization of a single underlying deficit in dyslexia.

21.05.15

Irena Botwinik, Efrat Harel, and Sharon Armon-Lotem
Tel Aviv University, Ono College, Bar-Ilan University
***Production of Object Relatives in Bilingual Acquisition:
L1 Russian, L2 Hebrew***

Despite their complexity, acquisition of relative clauses (RCs) is reported to be completed around 6;0 [1]. A fundamental question arises as to whether bilingualism affects the acquisition of RCs in the two languages, and in what way? Taking into account that in sequential bilingualism L2 may develop on the grammatical basis already available in L1, or L1's competence may suffer attrition, four hypotheses are plausible:

1. L2 delayed; L1 on time
2. Both delayed

3. L1 delayed; L2 on time
4. No delay in both languages

25 Russian-Hebrew bilingual children, aged 6 at first testing, participated in a two-phase study, a year apart. Object relatives were elicited as part of a sentence repetition task with 36 sentences, matched in length and complexity.

At first sight, our findings seem to support Hypothesis 3, as the success rate of L1 is lower than L2 (67% vs. 97%). However, an examination of the attested errors suggests that the correct Hypothesis is 4. We argue that the most prominent error, nominative operator (*kotoriy*-masc/*kotoraya*-fem) instead of the accusative one (*kotorogo*-masc/*kotoruyu*-fem), attested in a third of the errors on both testings, indicates children's competence in the derivation of Russian RCs, albeit with sporadic failure to retrieve the correct form of the operator, using the default one (nominative). Importantly, the nominative error was significantly more prominent with an animate, masculine relative head (e.g. 'father') (1st testing $p < 0.01$; 2nd testing $p < 0.001$). In this type of sentence, the accusative form of the operator (*kotorogo*) differs substantially from its nominative counterpart (*kotoriy*), both prosodically (number of syllables) and segmentally. Plausibly, this finding reflects a performance error, rooted in the speech production mechanism rather than attrition of L1's competence.

Our study highlights the importance of differentiating speakers' errors, supporting the view that bilingualism does not necessarily delay grammatical development.

14.05.15

Tamar Degani

Haifa University

Bilingualism and Cross-language Influences

Most people in the world and in Israel in particular, use more than one language on a daily basis. In this talk I will show that such bilingualism influences language processing even in contexts where only one language is called for, leading bilinguals to differ from monolinguals in single-language contexts. Cross-language effects are present in the absence of any overt activation of the non-target language, and in both directions, such that a second language learned later in life can impact first-language processing. I will demonstrate these effects in bilingual semantic processing, with semantic-relatedness judgments and eye-movements during sentence reading. Further, using a tip-of-the-tongue picture naming paradigm, I will show that very brief exposure to the non-target language can strengthen cross-language effects. Together, these studies highlight the dynamic nature of the bilingual lexicon, and underscore the practical implications of learning and using more than one language.

07.05.15

Gabi Danon

Bar-Ilan University

Ranking Alternative Specifications of Abstract Agreement Features

Subject-predicate agreement usually follows a rigid deterministic pattern. However, quantified noun phrases (QNPs) in subject position have been known to lead to considerable variation between two or more agreement patterns on the predicate. This talk presents experimental findings from a study of QNP agreement in Hebrew and Russian in sentences like the following:

- (1) *xeci me-ha-kita diber / dibra / dibru im ha-mora*
half.M.S of-the-class.F.S spoke.M.S / spoke.F.S / spoke.PL with the-teacher
'Half of the class spoke with the teacher.'
(Hebrew)

Within the context of the model proposed in Danon (2013), we argue that the findings support the view that subject agreement involves an abstract set of features that are distinct from the morphological features of the head noun (as in e.g., Sauerland & Elbourne 2002 or Wechsler & Zlatic 2003) and whose values are determined pre-syntactically. Comparing the acceptability ratings for the different agreement patterns when the QNP contains a plural noun with the ratings when using a group noun, we claim that the experimental data supports a model of agreement in which alternations are derived from optionality in the pre-syntactic feature specification of Q and N, rather than from optionality within the syntactic derivation. Furthermore, this data supports the claim that while both Hebrew and Russian favor 'consistent' lexical choice in which the abstract agreement features match both the semantics and the morphology, languages differ in how they rank different kinds of mismatch when a mismatch is unavoidable. The proposed analysis thus provides an account not only of the availability of multiple agreement patterns but also of the major factors involved in ranking their relative acceptability.

30.04.15

Netanel Haim

Tel Aviv University

Lexical Acquisition Requires Syntactic Acquisition

All syntactic frameworks rely on some representation of lexical content over which higher levels in the hierarchy are built. This language-specific lexical content needs to be acquired. Some aspects of syntax must be acquired as well. What is the relationship between these two types of acquisition tasks? Two possibilities come to mind:

- Lexical acquisition precedes syntactic acquisition (pipeline approach)
- Lexical acquisition and syntactic acquisition co-occur (simultaneous approach)

A brief review of recent models for lexical segmentation shows the first option to be problematic. Exhausting the lexical acquisition stage without considering any syntax leads the learner towards lexical hypotheses that impede syntactic acquisition. This supports a simultaneous approach, although it is not immediately

obvious whether and how an actual simultaneous learner can work.

To address this challenge – and thus further support the simultaneous approach – I will present a segmentation model which represents (some) syntactic knowledge and performs joint learning in an unsupervised fashion under a Minimum-Description Length (MDL) learning criterion.

16.04.15

Paul Egré

Institut Jean-Nicod

Vague Judgment: a Probabilistic Account

This paper investigates the idea that vague predicates like “tall,” “loud,” or “expensive” are applied based on a process of analog magnitude representation (see Fults 2009, van Rooij 2012, Solt 2012), whereby magnitudes are represented with noise. I present a probabilistic account of vague judgment, inspired from early remarks by Emile Borel (1907) on vagueness (Egré and Barberousse 2014), and use it to model judgments about borderline cases. The model involves two main components: probabilistic magnitude representation on the one hand, and a notion of subject-relative criterion. The framework is used to compare judgments of the form “x is clearly tall” vs. “x is tall,” using the idea of a shift of a criterion shift. The model can be viewed as giving a naturalistic counterpart to the strict-tolerant semantics of vagueness (Cobreros et al. 2012). I then extend it to fit data concerning borderline contradictions of the form “x is tall and not tall” (Egré, Gardelle and Ripley 2013).

31.03.15

Bridget Schvarcz

Bar-Ilan University

***Classifier Constructions in Hungarian
and the Semantics of the -nyi Suffix***

This talk discusses the syntax and semantics of classifier constructions in Hungarian and in particular the semantic interpretation of the suffix *-nyi*. The starting point for our analysis will be issue raised by ambiguous container classifiers. Container classifiers in Hungarian are ambiguous between a counting and measuring reading: *három üveg bor* (‘three bottles of wine’) can either refer to actual bottles (objects) which are counted or to a quantity of wine which measures three bottlefuls.

Following Rothstein (2009) we argue that counting and measuring in Hungarian are associated with two different syntactic structures, two distinct classifier interpretations, and two different interpretations of the numerical.

On a counting reading, the container classifier *üveg* (‘bottles’) is a relational noun (3a) at type $\langle e, \langle e, t \rangle \rangle$, while on a measuring reading it has the semantic structure of a measure head like *litre* and *kilo* (Krifka 1989, Landman 2004), at type $\langle n, \langle e, t \rangle \rangle$.

When the classifier is interpreted as a relational noun, it heads a nominal structure, and the N+complement is modified by the cardinal:

[három [üvegN bor]N'] $\rightarrow \lambda x. \text{BOTTLE}(x) \wedge \text{CONTAIN}(x, \text{WINE}) \wedge \text{CARD}(x) = 3$

When the classifier is interpreted as a measure head, it gives a structure where the classifier is a measure word which combines with a numeral to form measure predicate which modifies the noun:

[[három üveg]MeasP borN]] $\rightarrow \lambda x. \text{WINE}(x) \wedge \text{MEAS}(x) = \langle 3, \text{BOTTLE} \rangle$

We provide syntactic tests to support such structural ambiguity.

When attached to the classifier, the *-nyi* suffix forces a measure interpretation: *három üveg-nyi bor* ('three bottlefuls of wine') can only have a measure reading. Although *-nyi* initially appears to be the equivalent of the English *-ful*, deriving measure expressions of volume, it in fact has a much wider usage, attaching to nouns to convert them to measure expressions in many different dimensions (e.g., *buszmegállónyi* ('bus-stop-nyi'), *dombnyi* ('hill-nyi')). We provide a semantic interpretation to the Hungarian *-nyi* suffix and establish its role in creating measure units.

References:

Landman, Fred. 2004. *Indefinites and the Type of Sets*, Blackwell, Oxford.

Krifka, M. 1989. "Nominal Reference, Temporal Constitution and Quantification in Event Semantics". In R. Bartsch, J. van Benthem, P. von Emde Boas (eds.), *Semantics and Contextual Expression*, Dordrecht: Foris Publication.

Rothstein, Susan. 2009. Individuating and Measure Readings of Classifier Constructions: Evidence from Modern Hebrew. In *Brill's Annual of Afroasiatic Languages and Linguistics* 1, 106-145.

26.03.15

Elitzur Dattner

Tel Aviv University

***Discourse Profile Constructions:
A Usage-Based Approach to the Hebrew Dative***

The present study aims at describing and explaining the usage of the Hebrew Dative in a wide context. Instead of having the Dative morpheme itself as the object of research, I account for Dative constructions. This account is derived from a quantitative, usage-based approach to language. I argue that there are four basic types of Dative functions in Hebrew, each related to a particular usage pattern, and they are all related to each other on the basis of an innovative Affectedness Scale. The usage pattern (and specifically, the level of discursive transitivity and subjectivity of the clause), rather than the lexical semantics of the verb or the particular syntactic structure, is what points the hearer to the right interpretation of the Dative at hand. Through a corpus research, I have considered not only syntactic or semantic features in isolation but taken into account multiple parameters from multiple sources of linguistic and extra-linguistic information.

Based on multivariate exploratory statistics, and specifically on Correspondence

Analysis and Hierarchical Clustering, the present study proposes a new theoretical concept, and defines a usage pattern as a Discourse Profile Construction: a conventional pairing of multiple sources of information with a particular construal of the world. Assuming an exemplar-based cognitive representation of language, and based on the findings from the multivariate exploratory statistics, four Discourse Profile Constructions emerge from the corpus: (i) The Extended Transitive Discourse Profile Construction, (ii) The Human Endpoint Discourse Profile Construction, (iii) The Extended Intransitive Discourse Profile Construction, (iv) The Evaluative Reference Point Discourse Profile Construction.

These four Discourse Profile Constructions represent four sets of Dative tokens in the corpus, each of which is characterized by a different usage pattern. The present research shows that from a usage point of view there is little importance to the subjective, predicate-specific interpretation of the participant role itself. That is, the substantial differences are shown to exist between Discourse Profile Constructions representing sets of Dative functions converged under a single construal of the world, rather than between locally defined participant roles such as an Experiencer or a Recipient. These Discourse Profile Constructions are argued to be the basis for comparison between different tokens of use for both the interpretation of the Dative and the expansion of the cognitive category of each construction.

19.03.15

Nirit Kadmon and Aldo Sevi

Tel Aviv University

Nuclear Accent and Lexical Meaning: The Case of bixlal

The adverb *bixlal* is one of a number of Hebrew adverbs whose meanings seem to be affected by whether or not they carry a nuclear pitch accent, as illustrated in (1) and (2).

(1) *en li tapuzim BIXLAL*
 there-isn't to-me oranges *bixlal*
 'I don't have oranges at all.'

(2) *en li TAPUZIM bixlal*
 there-isn't to-me oranges *bixlal*
roughly: 'I don't have oranges to begin with.' / 'I don't even have oranges.'

In this talk we try to tackle the range of meanings of this adverb, some of which are illustrated below:

(3) *efšar liknot šam dagim BIXLAL ve-dgey yam BIFRAT* (G&K 2012)
 possible to-buy there fish(pl) in-general and-fish(pl)-of sea in-particular
 'It is possible to buy there fish in general and salt-water fish in particular.'

(4) *dan nudnik ve-ben BIXLAL meachben*
 Dan nagger and-Ben *bixlal* irritating (literally 'gets on one's nerves')
roughly: 'Dan is a nudnik and Ben is even/moreover, downright/totally irritating.'

- (5) *ha- štaf šeli ba'avoda homo, ve- ha- menaka šeli BIXLAL*
 the-partner of-me at-the-work gay and-the-cleaner(fm.) of-me *bixlal*
transit
 transsexual(fm.)
 'My partner at work is gay, and my cleaning-lady is *BIXLAL* transsexual.'
- (6) A: *yaxasit le-carfatiya hi milabešet garu'a*
 relative to-French(fm) she dresses badly
 'For a French woman, she dresses badly.'
 B: *hi BELGIT bixlal!*
 she Belgian *bixlal*
Roughly: 'But she is Belgian, to start with.'
- (7) *lifney še- mitnasim be-ze be-fo'al, i efšar LEDAMYEN et ze bixlal*
 before that-experience in- it in- reality, not possible to-imagine Acc it *bixlal*
Roughly: 'Before one actually experiences it, it is impossible to even imagine it.'

12.03.15

Yishai Neuman

Achva Academic College

Inalienable Possession Constructions in Spoken Hebrew
ארבעה מבני שייכות צמיתה בעברית הדבורה

אחד המאפיינים המבחינים בין שפות מבחינה טיפולוגית הוא מספר מבני השייכות התחביריים שהן מכירות, ושפה המכירה יותר ממבנה שייכות אחד יכולה להביע דרגות שונות של שייכות. בין סוגי השייכות מקובל להבחין בדרגת שייכות חזקה הנקראת 'שייכות צמיתה' (inalienable), וגם בסוג זה מקובל להבחין בדרגות שונות של עוצמת השייכות. מבני שייכות צמיתה מוגבלים לקבוצה סגורה של שמות העצם במצב לשון נתון, וקבוצה זו משתנה משפה לשפה, מסוציולקט למשנהו ואולי אף בין אידיולקטים. שמות עצם העשויים לבוא במבני שייכות צמיתה מכונים 'שמות עצם צמיתים'.

העברית הכתובה מכירה את מבנה שם התואר בנסמך המביע שייכות צמיתה (כגון **היא מהירת-מחשבה**) והעברית הדבורה מכירה ארבעה מבנים המביעים שייכות כזאת:

(1) סופית גוף חבורה לשם העצם: **לדעתי, אשתך, זכותו, תורכם;**

(2) 'שם עצם בלא ה"א היידוע + של בנטייה': **אמא שלי, דודה שלי;**

(3) 'ה"א היידוע + שם עצם': **תפתחו את העיניים;**

(4) 'ל- בסמיכות לש"ע או בנטייה + ה"א היידוע + שם עצם': **רואה לך בעיניים.**

מבנה מספר (1) קיים אמנם גם בעברית הכתובה וגם בעברית הדבורה, אולם ערכיו הסמנטיים בשתייהן שונים, שכן העובדה שבעברית הדבורה המבנה מוגבל לקבוצה סגורה של שמות עצם בעוד שבעברית הכתובה הוא אפשרי בכל שם עצם מיוחדת אותו כמבנה מסומן בעברית הדבורה.

מבנה מס' (2) אינו קיים בעברית הכתובה. הורתו בצורות הקמאיות **אבא שלי ואמא**

שלי, כאשר **אבא ואמא** משמשים כצורות פנייה קפואות (אין לקבל את ההסבר שצורך היידוע הארמי (**אב+א**) מונע את הוספת ה"א היידוע בעברית מחשש ליתור, והשווה **המשכנתא**). קטגוריית הורים זו התרחבה אל **דוד שלי, דודה שלי, חבר שלי וחברה שלי**, וכן **מתוקה שלי** וכיו"ב. בהיעדר אמצעים סגנוניים, מבנה (2) נקרה בתפוצה משלימה עם (1).

מבנה מס' (3) הוא שיקוף של מבנה דומה הקיים בידיש (ער האט געעפנט די אויגן 'הוא פקח את העיניים' [ויינרייך]) ואין לו מהלכים בעברית הקדם-ישראלית, ומתוקף כך אין הוא חלק מלשון התקן, אך הוא נפוץ מאוד בלשון הדיבור. הוא מוגבל למבעים שבהם קיים אזכור קודם של בעל הקניין.

מבנה מס' (4) הוא חלופה של (3) בהיעדר אזכור קודם של בעל הקניין. גם הוא נפוץ מאוד בלשון הדיבור. למשל, לצד **עד אָשר יצא מאַפְּכֶם** (דברים יא, כ) גורסת העברית הדבורה **עד שייצא לכם מהאף**. מבנה (4) נקרה בתפוצה משלימה עם (3).

הבחירה בין המבנים תלויה גם בגורמים מורפולוגיים, שכן, מלבד **אשתי, אשתך ואשתו**, קבוצת שמות העצם המתאימה למבנה מספר (1) מוגבלת לשמות עצם שבסיסם אינו משתנה בנטייה. לולא הייחוד הסמנטי של מבנה מספר (2), שם העצם **דוד** בוודאי היה מצטרף אל קבוצת השמות במבנה מספר (1). קבוצת שמות העצם הקבילים בארבעת המבנים מראות על מידת פתיחות הולכת וגוברת: מבנה (1) סגור למצטרפים חדשים, מבנה (2) קיבל אל שורותיו את **חברה שלי** לאחרונה יחסית, ואילו מבנים (3) ו-(4) הולכים ומתרחבים: **הוא פגע לי בכבוד** (<http://www.haaretz.co.il/news/law/1.1705384>). הדיון מסתמך על העברית הדבורה ועל ייצוגה בסיפורת, וממצאיו יתרמו לתיאור הטיפולוגי של העברית בת-זמננו.

ביבליוגרפיה

אורנן, עוזי. תשכ"ט. "שימושים של כינויי קנין חבורים ופרודים בלשון ימינו", **דברי הקונגרס העולמי הרביעי למדעי היהדות**, כרך ב, ירושלים: האיגוד העולמי למדעי היהדות, עמ' 117-122 (במיוחד §13).

דובנוב, קרן. תש"ס. "כינויי הקניין החבורים והפרודים של שם העצם בעברית המדוברת", **בלשנות עברית** 47, עמ' 21-26.

ויינרייך, אוריאל. תשל"ז. **יידיש לאוניברסיטה**, תרגמה שושנה בהט, ירושלים: מאגנס, שיעור כ"ג, עמ' 172.

רוזן, חיים. תשט"ז. **העברית שלנו: דמותה באור שיטות הבלשנות**, תל-אביב: עם עובד.

Rosén, Haiim B. 1957-1958. "Sur quelques catégories à expression adnominale en hébreu israélien", *Bulletin de la société linguistique de Paris* 53, pp. 316-344.