Sentence processing is modulated by various types of information: syntactic, semantic, and pragmatic. Recently, it has also been suggested that comprehenders' beliefs and attitudes may affect real-time sentence comprehension. In this study, I explore this suggestion by looking at animacy. One robust effect regarding animacy is that while object relative clauses (ORCs) headed by animate nouns (1a) are harder to process than subject relative clauses (SRCs) (1b), this processing difficulty is alleviated when the head of an ORC is an inanimate noun (1c). This was explained by applying to the animacy hierarchy, stating that animate nouns typically appear in subject positions and are interpreted as agents; in ORCs headed by animate nouns, when a different subject (underlined) appears inside the RC, it causes disruption.

(1) a. I like the **employee** [that the manager noticed __].
   b. I like the employee [that ___ noticed the manager].
   c. I like the **jacket** [that the manager noticed __].

The animacy hierarchy is usually considered to show at least a three-way distinction: humans, non-human animals, and inanimates. Studies about the effect of animacy on processing, however, have used only humans as the animate entity. In this study, I aim to start filling this void by examining whether the distinction between human and non-human animals influences real-time processing. Specifically, I wanted to test whether the subject in an animal-noun headed ORC will be processed similarly to that in a human-noun headed ORC, or to that in an inanimate-noun headed ORC. In addition, I test whether a reader's attitude towards animals, as assessed by the Animal Attitude Scale (Herzog et al., 1991), is in correlation with such processing effects.

In experiment 1, I compared ORCs with human-, animal-, and inanimate-denoting heads in a self-paced reading task. I found no significant effects on the subject of the RC, possibly due to artifacts from preceding material in the sentence, i.e. an adjective modifying the head noun.

In experiment 2, materials were altered so that a three-word temporal phrase opened the RC. There were again no significant effects on the subject. Thus, I did not replicate the finding from the literature that animacy modulates the processing of ORCs. However, the last word of the temporal phrase was read faster for the animal and human conditions.
compared to the inanimate condition. There was also an interaction with attitude, such that for participants with high AAS scores, animals and inanimates differed, while for those with low AAS scores, only humans and inanimates differed. This provides preliminary evidence that nouns denoting humans vs. non-human animals may differ in real-time processing, and that the effect varies in correlation with attitudes towards non-human animals.

The talk will be held online via Zoom.

11.06.20

Maayan Abenina-Adar
UCLA

Expressing Ignorance with Determiner Phrases

Many languages make available pairs of definite determiner phrases (DPs), distinguished by their determiners, where one member of the pair requires ignorance about the referent in a way that the other does not. In English, whatever- and the-DPs contrast in this way, as seen in (1a-b).

(1) The book that Maria bought is War and Peace.
   a. The book that she bought is over there on the shelf.
   b. #Whatever book she bought is over there on the shelf.

Similarly contrasting indefinite pairs are also common; in English, the a-DP in (2a) allows a namely-continuation, whereas the some N or other-DP in (2b) does not.

(2) a. Maria bought a book by Tolstoy (namely, War and Peace).
   b. Maria bought some book or other by Tolstoy (#namely, War and Peace).

I will consider two hypotheses about the source of ignorance requirements with whatever-DPs, some N or other-DPs, and similar (in)definites in Japanese, Spanish, and Hebrew: The first is that they encode an ignorance restriction (similar in meaning to the relative clause such that I am not certain whether it is A, or B, (or C...)), and the second is that they encode a relatively general property restriction (similar in meaning to the relative clause which is A, or B, (or C...)), with a pragmatic derivation of ignorance requirements. The requirements associated with embedded occurrences of these DPs favor the latter, pragmatic view.

I will discuss how these findings fit within existing restrictive theories of the meanings that members of the morphosyntactic category of determiners may encode.

The talk will be held online via Zoom.
Center Embedding (CE) sentences, such as 'The boy that the neighbor that the guest liked saw fell', which consist of two nested object-relative filler-gap dependencies, are notoriously difficult to process (Chomsky & Miller 1963). Two main explanations have been offered regarding the reason for this difficulty. Gibson (1998) argues that it stems from maintenance costs: The memory load associated with keeping track of three fillers and the predictions that are associated with them exceeds the working memory capacity of most comprehenders, who subsequently fail in assigning the fillers to their corresponding verbs. In contrast, Lewis, Vasishth, & Van Dyke (2006) claim that the difficulty in these structures arises at retrieval: In the absence of sufficient cues, retrieval of the filler at the verb fails due to the similarity between the different NPs, leading to interference.

This study focuses on Hebrew CE sentences and examines whether they can benefit from the presence of:

(i) Agreement features differentially marking the different NPs and identifying every verb's subject.
(ii) Resumptive pronouns (RPs), which can aid retrieval by allowing more processing time, and/or by providing the fillers' agreement features, thus identifying the verb's object.

Experiment 1 addressed this question using a comprehensibility rating task. It included four conditions manipulating the distinctiveness of the agreement features on the three subject NPs and the occurrence of RPs. Results show that distinct agreement significantly improved comprehensibility, whereas the presence of RPs did not. Moreover, the advantage of agreement distinctiveness was observed only in the absence of RPs.

Experiment 2 was a similar experiment using end-of-sentence comprehension questions. Results show that distinct agreement significantly improves comprehension, while RPs do not. However, these results do not show the cancelling-out effect RPs had on the advantage of distinct agreement that was observed in Experiment 1. Furthermore, Results reveal that the most embedded verb (and the resolution of its dependency) presented the most difficulty, and was not aided even by distinctive agreement.

Results of both experiments will be discussed and a follow-up experiment will be presented.
Valeriya Afus  
Tel Aviv University  
*The Role of Prosody and Segmental Features in the Perception of Palatalization*

The perception of non-native contrasts is often challenging, as is the case with the perception of palatalization contrasts by English speakers (Bolanos 2013, Gor 2014). Some studies suggest that the perception of non-native palatalization contrasts is influenced by prosodic position (Bolanos 2013, Kulikov 2011) and segmental features (Kulikov 2011).

The present study aims to shed light on the perception of non-native contrasts, with experimental evidence from the perception of Russian palatalization contrasts by Hebrew speakers. We examined palatalization contrasts in two prosodic positions: onsets and codas (C{aC}, CaC{)}, and with different manner and place of articulation (p/{p}, t/{t}, m/{m}, n/{n}, f/{f}, s/{s}, l/)l{)). The perception accuracy of monolingual Hebrew speakers was compared to that of Israeli heritage Russian speakers and monolingual Russian speakers.

The results reinforce earlier claims, showing that the perception of non-native palatalization contrasts is affected by prosodic position: onsets vs. codas, as well as by place and manner of articulation. However, we found that not all contrasts behave alike, with the l/l contrast being the odd one out. In addition, the perception of palatalization contrasts by Israeli heritage Russian speakers was poorer than that of monolingual Russians, but better than that of monolingual Hebrew speakers. Importantly, the heritage speakers were a heterogenic group with respect to the perception of the palatalization contrast, without an obvious correlation with non-linguistic properties (e.g., age of arrival, activities in Russian, siblings).

The results are formally analyzed within the framework of Optimality Theory (Prince & Smolensky 1993/2004), adopting Steriade's (2001a,b) P-map approach.

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Carlo Meloni  
Tel Aviv University  
*In Search of the Biblical Rhotic: A Phonological Reconstruction of resh*

In this talk, I will reconstruct the Biblical Hebrew rhotic, *resh*, basing the analysis on its phonological behavior. I will examine the phonological phenomena related to *resh* on a quantitative basis, and will argue that it is
best identified as the alveolar tap – /r/.

Rhotics are a very diverse class of segments that are present in 85% of the world’s languages (Ladefoged & Maddieson 1996). This class contains sounds with different places and manners of articulation, and thus cannot be defined solely by articulatory or acoustic properties. Nonetheless, these sounds tend to be represented by a small set of graphic symbols, without regard to their heterogeneity.

In light of their different nature, it can be difficult to identify a rhotic’s phonetic realization in a dead, unrecorded language, that being the case for languages such as Latin and Ancient Greek. The same holds for the Biblical Hebrew rhotic. According to some accounts (Gesenius 1813, Blau 2010), it should be categorized as some kind of back consonant, while other accounts (Luzzato 1853, Harper 1922, Jouon-Muraoka 1996) classify it as an alveolar/dental segment. Others still, like Khan (1995, 2020), relying on Early Hebrew grammarians, reached the conclusion that resh had a twofold pronunciation depending on its phonological environment. These former accounts were not based on a systematic examination of the phonological phenomena related to resh, which suggest that it should belong in the natural class of the coronals.

In order to reconcile between my account and the that of the grammarians, I will assume a diachronic transition, during which an original alveolar trill lenited to a transitional alveolar tap, which in turn changed into the back consonant described by the grammarians. This assumption will be supported by a typological review of the rhotics’ diachronic changes. Moreover, I will propose a possible timeline for this diachronic change, basing it on extra-Biblical sources, such as the cuneiform transcriptions of Hebrew words, and the Greek translations of the Bible.

The talk will be held online via Zoom.

07.05.20

Yechezkel Shabanov
Tel Aviv University

Double Negation in Hebrew: Interpretation and Motivation

Sentences may contain two consecutive negatives even without negative concord. This is despite the fact that, logically, affirmative should suffice to convey the same meaning. Nonetheless, doubly-negated expressions seem to convey a meaning different from the affirmative element: “not unhappy” does not mean “happy” (Jespersen 1924). It has been suggested that adding negation to an already negated adjective makes a weaker statement than the (equivalent) affirmative, by compelling an unexcluded middle (Horn 2017) or by a mitigation effect (Giora 2006). The main aim of my research is to provide empirical evidence for the interpretation of doubly-negated expressions, and the motivations for their use.
In Experiment 1, I examine the interpretation of double negation, asking whether double negations are interpreted logically as an affirmative, or whether they are interpreted similarly to hedges. Participants \( (N = 104) \) determined the domain of several adjectival expressions on a scale. For analysis, three measures were extracted: (i) the domain’s size, (ii) its location, and (iii) inclusion of the logically-relevant edge. Doubly-negated expressions differed significantly \( (ps < .001) \) from affirmatives on all three measures: Their domains were larger, located farther from the edge, and included the edge less. Doubly-negated expressions also differed from hedges \( (dey \ ‘kind of’ \ and \ kcat \ ‘a bit’): \) They were larger \( (ps < .007) \), and closer to the edge \( (p < .001) \). These results confirm the suggestion that double negation allows a weaker interpretation than the affirmative, while retaining the possibility of being interpreted logically under particular contexts. They also suggest that double negations afford a wider range of interpretation than hedges, likely determined by context.

In Experiment 2, I examine one motivation for using double negation, that of politeness. A speaker may wish to weaken their upcoming statement to avoid offense. In this experiment, contexts that trigger politeness are to be identified, and then tested with double negation. Naturalness and reaction times will be collected to determine if such contexts do favor double negation. Future direction for testing interpretation of double negation based on adjective types, and other motivations for using double negation will also be presented.

The talk will be held online via Zoom.

30.04.20

Alon Fishman
Tel Aviv University

Copulative Perception Verbs: The Sounds of Hebrew

Copulative perception verbs (CPVs) such as English *sound* and Hebrew *nišma* ‘sound’ are known to have an evidential use, on which they modify propositions, as well as a perceptual or attributary use, on which they relate individuals and properties (Lasersohn 1995, Gisborne 1996, 2010). I tackle a number of empirical questions regarding Hebrew CPVs, using experimental and corpus evidence. I focus on the three constructions in (1), of which the verbal construction (1a) has heretofore been entirely overlooked.

(1) a. *hen nišmaʻot muzar.*
   *they,F.PL sound,F.PL weird,M.SG/weirdly*
   ‘The way they sound is weird.’ Originally & Attributary

b. *hen nišmaʻot muzarot.*
   *they,F.PL sound,F.PL weird,F.PL*
   ‘They sound like they are weird.’ Originally & Evidential
I show that the distinction between the verbal and copulative constructions (1a-b) aligns with the semantic distinction between attributary and evidential uses. I also show that the frequency and semantic contribution of the optional dative argument are different between these two constructions. Finally, I draw a semantic distinction between the copulative and impersonal constructions (1b-c), teasing apart the evidentiality of the former from the epistemic modality of the latter (Faller 2002, Cornillie 2009, cf. Matthewson 2012).

The talk will be held online via Zoom.

23.04.20

Maayan Keshev
Tel Aviv University

Avoiding Marked Structures in Sentence Processing: Evidence from Hebrew Post-Verbal Subjects

During sentence processing, comprehenders incrementally form syntactic structures and interpret the sentence without unequivocal evidence. I suggest that in doing so, comprehenders actively refrain from constructing marked sentential representations. A series of psycholinguistic experiments investigates the processing of temporary ambiguity in Hebrew VSO relative clauses like ha-talmid še-etmol hixlit ha-more le-ha’aniš. The results exhibit that comprehenders do not predict the post-verbal subject in such cases, and are even willing to compromise subject-verb agreement to refrain from such (grammatical but) highly-marked structures. This suggests that comprehenders maintain uncertainty as to the fidelity of the input and prefer assuming an error occurred (a typo or misperception) over forming a marked sentence structure.

The talk will be held online via Zoom.

02.04.20

Neta Haluts
Tel Aviv University

Signs for Similar Language Mechanisms: Phonological Output Buffer Impairments in Deaf Users of Israeli Sign Language

In spoken languages, individuals with specific impairments to a language component called the Phonological Output Buffer (POB) make phonological errors in production, repetition, and reading aloud of morphologically-simple words and nonwords, as well as stems of morphologically-complex words, whereas they make whole-unit errors (i.e., substitutions, omissions, and insertions of whole-units from the same category) with number words, function words, and morphological affixes (Dotan & Friedmann, 2015).
Since phonology seems at first glance to be very different between spoken languages and sign languages, it is interesting to test whether the same type of phonological impairment may be present in signers as well.

I will present the first examination of how POB impairments are expressed in deaf native signers of Israeli Sign Language (ISL), by first addressing phonology of sign languages, as well as unique morphological structures of sign languages – such as classifier constructions, morphological facial expressions, and agreement verbs, and will show that despite the different modality, language impairments are expressed similarly in spoken languages and in sign languages.

**The talk will be held online via Zoom.**

**12.03.20 – Cancelled due to COVID-19**

Naomi Havron  
École Normale Supérieure, Paris  
*Prediction as a Key Mechanism in Language Acquisition?*

Prediction has been proposed to be a fundamental aspect of cognition. Some have proposed that language acquisition also happens through prediction (e.g., Chang, Dell, & Bock, 2006). Nevertheless, there is currently little direct evidence that children generate linguistic predictions rapidly enough to allow for learning through prediction, and no evidence that these expectations can guide the learning of novel linguistic information. I will present a series of studies conducted with children, which show that they do not only update their predictions about what speakers will say next, but also use their adapted predictions to learn novel information. I will also show my results from an experiment with infants, and discuss what these might tell us about the developmental time course of prediction in language acquisition.