

# Research statement

## 1 Summary

As a linguist, I am both a theoretician and an experimentalist. In theoretical terms, my main research specialty lies in generative syntax, formal semantics, and their interaction. The goal of my research is to develop an understanding of the inventory of the structural and interpretational building blocks available to the language faculty: What syntactic strategies are employed during structure building? What additional machinery must the semantics provide in order to interpret these structures? How does this inventory vary cross-linguistically, and how does it manifest itself in online processing? My research uses a variety of experimental techniques to study these questions, including sentence processing, large-scale grammaticality surveys, first language acquisition, and ERPs. These techniques are supplemented by fieldwork on understudied languages, such as Chuj (Mayan) and Tibetan, and traditional judgment work focusing on English, German, and Hebrew.

My dissertation (2014) and monograph (MIT Press; forthcoming) offer a new view of the division of labor between different compositional strategies employed in the formation of *wh*-questions — movement and focus-alternative computation — motivated by evidence from online sentence processing as well as offline judgment data. I argue that covert *wh*-movement is present in some derivations of *wh*-questions, but unlike its overt counterpart, it is not long-distance and successive-cyclic, but rather behaves like a form of scrambling. This motivates a new theory of interrogative syntax/semantics that I believe fares better than its predecessors in explaining language acquisition and sentence processing data, while at the same time accounting for a wide range of known facts and new observations about *wh*-questions. In ongoing current work, I have commenced research on a second, related book project concerning *wh*-intervention effects.

In other work, I have studied the syntax and semantics of a variety of other  $\bar{A}$ -phenomena, including Association with Focus and focus movement, relative clauses and free relatives, ellipsis, pied-piping, comparatives and superlatives, and non-interrogative uses of *wh*-words, including in *wh*-quantification, *wh*-indefinites, free choice items, and *wh*-NPIs. I build on my expertise in the syntax and semantics of questions to identify the underlying core components of these other constructions and how they might be modeled compositionally. I also have an ongoing interest in the nature of syntactic composition, derivational economy and timing, and psychologically real top-down structure building. By bringing diverse sources of evidence to bear on our understanding of the syntax-semantics interface, I aim to clarify the analytic options in both the syntax and semantics proper. This, in turn, will offer the field a theory of the division of labor among different tools available to the grammar, highlighting their conditions of use and their limitations.

In what follows, I provide details about some of my previous and ongoing research. Additional details about the projects that I am involved in can be found at <http://hkotek.com/research.html>. Links to the publications mentioned here and to others can be found at <http://hkotek.com/publications.html>.

## 2 Established work

My earliest research focused primarily on questions and on the nature of comparative and superlative quantifiers. It combines behavioral data from perception and acquisition, physiological data, and traditional judgment data from various languages.

### 2.1 Dissertation and LI monograph

The main focus of my dissertation and forthcoming monograph concerns the syntax and semantics of *wh*-questions, bringing new data to bear on a central question in this domain: Given that *wh*-movement is cross-linguistically common but not ubiquitous, is syntactic movement a prerequisite for the interpretation of questions? A significant body of research has argued that all *wh*-phrases undergo movement to interrogative C even if this is not overtly visible, while an equally important body of work has proposed semantic mechanisms that do not require any movement at all. I investigate the syntax and semantics of *wh*-in-situ in depth, and argue for a proposal that I believe resolves the debate.

The core result of this work is that *wh*-in-situ *does* move covertly in some languages, but this movement is not long-distance and successive-cyclic, but instead should be viewed as a form of *scrambling*. Longer-distance movement is available, but only under special circumstances. These results contribute to our understanding of the acquisition of questions, and extend to typologically diverse languages, including *wh*-in-situ languages, multiple *wh*-fronting languages, partial movement languages, and optional movement languages. I motivate my proposal through new diagnostics for the underlying structure of questions, using as a principal tool the distribution of *intervention effects*—a topic of much attention in recent work on questions—in both offline judgment data and online sentence processing.

This proposal is able to model a variety of phenomena in the domains of interrogative syntax, semantics, and pragmatics that have not received a unified account in previous proposals, including pied-piping, superiority effects, the presuppositions of simplex and multiple questions, the single-pair and pair-list readings of multiple questions, and the diversity of interrogative syntax against the backdrop of a uniform semantics-pragmatics.

### 2.2 *Wh*-questions, pied-piping, and derivational economy

Two kinds of *wh*-phrases in Hebrew (Kotek 2014b, *NLLT*): This is my earliest work in the area of questions and intervention effects. I show that Hebrew has two kinds of *wh*-phrases: those headed by a *wh*-word and those headed by another D or P, with different movement options available to them. I propose that *wh*-headed-phrases can be attracted by two distinct interrogative probes, while other *wh*-phrases can only interact with one of these probes. I argue that the unexpected lack of intervention effects in certain Hebrew questions is explained by this probing system. I furthermore show that superiority-violating questions are exceptionally blocked when the reading they would yield is identical to one that could be derived from a superiority-obeying question (cf. Wiltschko, 1997, for German). I propose an account of this fact in terms of trans-derivational economy.

Covert pied-piping in questions and Association with Focus constructions (Kotek and Erlewine 2016a, *LI*; Erlewine and Kotek 2014, *Proceedings of NELS 43*): Many theories assume a mechanism of covert movement for syntactic and interpretational purposes. We ask whether this movement triggers pied-piping, a phenomenon familiar from overt movement. We argue that intervention effects can diagnose the existence and size of covert pied-piping in *wh*-questions and focus constructions. We show that covert pied-piping, unlike its overt counterpart, must be as large as possible, and argue that this reflects the preferences of the interfaces: LF prefers movement of large constituents to best satisfy economy principles, but PF prefers movement of a smaller constituent.

### 2.3 Experimental research

The syntax and semantics of *most* (Kotek et al. 2011a, *Syntax and Semantics*; Kotek et al. 2011b, *Proceedings of SALT 21*; Kotek et al. 2015, *NALS*): Through a series of experimental studies involving large-scale grammaticality surveys, self-paced counting, picture-matching, and covered-box studies, we show that *most* in sentences such as *most of the dots are blue* is ambiguous between a prominent “more than half”-like reading, and a latent “superlative” reading — a reading that is easily observable with the related phrase *the most* — contra Lidz et al. (2011) et seq. We propose a semantics for *most* and *the most* where these items are both complex words, decomposable into a *many* morpheme and a superlative morpheme *-est*. The distribution and prominence of readings is accounted for by the varied movement options available to *-est* in different syntactic positions, and allowing the context to partition the alternatives quantified over by *most* in different ways.

Acquisition of Antecedent Contained Deletion (ACD) (Sugawara et al. 2013, *Proceedings of BUCLD 37*): We study children’s acquisition of ACD. We show that children as young as 5 years old have already acquired the mechanism required for resolving local and non-local ACD (Syrett and Lidz, 2009, 2011). We also find that the older but not the younger children display difficulty when more movement occurs in the derivation than is necessary for ellipsis resolution. This reflects a preference for the size of movement to match the size of an elided constituent in the sentence (Hardt and Romero, 2004; Breakstone et al., 2011). We propose that this may reflect a difference in how covert movement is performed by children and adults: children perform successive-cyclic movement, but the older children and adults sometimes construct a structure without such intermediary movement steps.

Morphological blocking effects (Kotek and Erlewine, under review): A well-studied phenomenon in the Japanese literature involves a blocking effect, where the existence of a lexical causative form of a verb blocks the formation of an analytic causative with the same verb. This phenomenon has been believed not to exist in English, prompting extensive research on cross-linguistic variation. We show that this same blocking effect *does* exist in English — when the syntactic structure of a sentence is manipulated so that the causative verb *make* and a lexical verb are linearly adjacent. We argue that movement creates the environment for the application of an obligatory Fusion operation, in Distributed Morphology terms, that explains the blocking effect.

In a collaboration with researchers in Tohoku (Japan), MIT, and CUNY, we study brain re-

sponses related to such blocking effects using ERP and MEG, in both English and Japanese. Preliminary results suggest that different brain signatures are associated with blocked forms (P600) and semantically deviant but grammatical forms (N400). These responses are compatible with an approach to blocking in causatives where syntactic operations feed morphological rules, but they are unpredicted by Lexicalist approaches to blocking.

*Turktools* (Erlewine and Kotek 2016b, *NLLT*): We develop a series of free, open-source tools designed to assist linguists in the process of creating, posting, and analyzing online experiments using grammaticality surveys, picture-matching tasks, completion tasks, and covered-box tasks, with diverse designs using binary forced choice, Likert scales, slide-bars, and drop-down menus. The tools assist with the creation of HTML templates for the experiments, randomization and list-creation, and basic visualization and data analysis. The resulting surveys can be posted on Amazon Mechanical Turk or hosted on the experimenter's own server. We additionally discuss the usefulness of empirical tools to theoretical linguistic research in a broader context. Notes from a guest lecture series on *Turktools* and online experimentation at NYU can be found at <http://hkotek.com/turk/>.

### 3 Ongoing research

In current work, I have established a research program aimed at studying the underlying components of grammar involved in structure building and interpretation. A key component of this work is the development of diagnostics to distinguish between different modes of scope-taking and composition when this is not obvious from surface structure. This has involved work with speakers of understudied languages such as Chuj (Mayan) and Tibetan. Because of limited access to resources, due to the fact that I have moved to a new university 4 times in the last 5 years, my experimental work has recently slowed down. Nonetheless, I retain as strong an interest in this type of empirical research as before, and have every intention of resuming its pursuit in a longer-term position. Some plans for future research along these lines are outlined below.

#### 3.1 Scope-taking in Grammar

Intervention effects as a ban on movement into focus (Kotek 2017, *Proceedings of NELS 47*; Kotek 2019, ms.): I propose a theory of *wh*-intervention effects where intervention results from a mathematical incompatibility between Predicate Abstraction and focus alternatives computation. That PA is not well-defined over alternatives is a known property of simple-typed semantic systems, such as the one in Heim and Kratzer (1998), dating back to the very origins of the focus system (Rooth, 1985). However, until now, this problem has largely been ignored by major works in semantics. I show novel patterns of intervention effects in English and Japanese suggesting that intervention effects surface precisely when *movement* must target a region where *wh-alternatives* are computed. This result has important implications for the architecture of grammar: to explain intervention, we must posit a simple typed system that allows overt and covert movement alongside focus alternatives computation, with implications for theories of quantification, modality, focus, binding, movement, and reconstruction cross-linguistically.

### 3.2 Questions under Discussion and the syntax/semantics of discourse

Questions under Discussion and ellipsis licensing (Kotek and Barros 2018b, *LI*): We discover an asymmetry in English multiple sluicing, where surface-scope antecedents can license a multiple sluice, but inverse-scope antecedents cannot. We argue for a semantic identity account of ellipsis licensing, where ellipsis is licensed when the sluice corresponds to an (implicit) Question under Discussion (cf. AnderBois, 2014; Barros, 2014; Weir, 2014). Furthermore, Q-equivalence cannot be computed based on the truth-conditional content of the antecedent alone; instead, it must be computed only after implicatures have been calculated and added to the common ground, along with the context of utterance.

In ongoing work (Kotek and Barros 2018a, under review), we highlight challenges to extant formulations of Q-equivalence approaches to ellipsis licensing. We argue instead for an approach inspired by Merchant 2001, where sluicing is possible provided that the antecedent and sluice have the same focus-theoretic content. We furthermore provide a generalized account going beyond sluicing to explain cases of VP-ellipsis. Finally, we argue that the theory of ellipsis licensing should be integrated into the general theory of redundancy reduction — in particular, that the semantic condition on identity in ellipsis is the same as the condition on deaccenting (cf. Tancredi 1992), leading to a revised formulation of GIVENNESS in discourse, improving on the empirical coverage in Schwarzschild (1999).

The semantics of *otherwise* (Phillips and Kotek 2018, ms.): We adopt a dynamic semantic approach to *otherwise*, casting it as a discourse particle that is able to access the most recently raised QuD in the discourse. *Otherwise* describes what would hold in the complement set of worlds to those introduced by its antecedent. We relate this denotation to the semantics of *complement anaphora*, making use of the equivalent of E-type anaphora in the domain of worlds/times. This approach can explain known puzzles (Webber et al 1999 et seq) as well as uncover new insights concerning the interaction of *otherwise* and modality.

Processing QuDs: While various theories of presuppositions, implicatures, ellipsis, and discourse coherence require the use of QuDs (e.g. Zondervan 2009, 2010; Rohde and Kehler 2009; Clifton and Frazier 2012; Grant et al. 2012; Cummins and Rohde 2015), not much is known about how speakers compute QuDs in real time. The discourse particle *otherwise* provides a starting point for a large-scale project, given the observation that left-to-right structure and the immediacy of antecedent-QuD/consequent seem crucial for predicting its distribution. In current work, I am planning a series of production and comprehension studies which may help clarify questions such as (a) the structure of a QuD as a stack (Roberts 1996) or a tree (Büring 2003; Rojas-Esponda 2014), (b) whether the QuD involves syntactic structure (Keshet 2018), and (c) whether discourse moves target the most recent update, the most informative possible update, or the most discourse-salient update.

### 3.3 Non-interrogative uses of *wh*-words

*Wh*-quantification in Tibetan (Erlewine and Kotek 2016a, *Linguistic Analysis*): We examine the syntax and semantics of Negative Polarity Items using *wh*-words in Tibetan. We develop a compositional semantics for two types of NPIs in Tibetan — *one*-NPIs and *wh*-*EVEN*-NPIs — which explains their negative-polarity dependency, based on Lahiri's (1998) analysis of similar constructions in Hindi. Our analysis for *wh*-*EVEN*-NPIs takes advantage of the Hamblin (1973) denotation of *wh*-words as sets of alternatives and the fact that *EVEN* introduces two inferences—an additive one and a scalar one. Allowing the additive component of *EVEN* to scope independently of the scalar part (cf Crnič, 2011), the additive part of *EVEN* is used to generate an indefinite out of the *wh*-word. The scalar component is used to ensure that *EVEN*-NPIs can only be used in downward entailing contexts, and to derive a clause-mate condition. To our knowledge, this is the first compositional analysis of *wh*-*EVEN*-NPIs in any language.

*Wh*-indeterminates in Chuj (Kotek & Erlewine 2019, to appear in *Canadian Journal of Linguistics*): We describe the various uses of *wh*-words in Chuj. Alongside question formation, the *wh*-words 'who' and 'what' can be used in some limited contexts as bare *wh*-indefinites: in post-verbal position, under negation, in the antecedent of a conditional, and under future and progressive aspect. *Wh*-words can also be used to form free-choice items and *wh*-quantifiers. In addition, *wh*-words may form two kinds of Free Relatives (FRs): Existential FRs have a limited syntactic distribution and cannot take overt nominal domains. Nominal FRs may appear in any syntactic position and be the complement of any verb, and may additionally take nominal domains.

*Characterizing existential free relatives* (Kotek and Erlewine 2016b, *Proceedings of NELS 46*; submitted): Building on this previous work, we contribute to the typological study of existential free relatives (FRs) by presenting a study of FRs in Chuj. Previous work such as Izvorski 1998, Grosu 2004, and Šimík 2010 et seq has motivated the generalization that such existential FRs are cross-linguistically (a) structurally reduced and (b) necessarily modalized in interpretation. These constructions are therefore often termed Modal Existential *wh*-Constructions (MECs). In contrast, we show that existential FRs in Chuj are (a) structurally unreduced full clauses and (b) do not have a modalized interpretation, but otherwise exhibiting the limited distribution and interpretation characteristic of MECs, challenging this cross-linguistic generalization. We propose that these FRs in Chuj and previously studied MECs should be analyzed as instantiations of the same construction, which we propose to call "existential FRs." Independent differences between the grammars of these languages explain their divergent properties.

### 3.4 Implicit gender bias: Big data and experimentation

In several ongoing collaborations, building in part on my work with the LSA Committee on the Status of Women in Linguistics (COSWL), I am pursuing a careful data-driven study of gender and the representation of women in Linguistics.

Gender in Syntax textbooks (Pabst, Cépeda, Kotek, and Syrett, presented at LSA 2018): We present a survey of example sentences in 6 recent syntax textbooks, building on a similar study in Macaulay and Brice (1997). We find that the gender skew and stereotypes reported in M&B are still present 20 years later. Among our findings, men are twice as likely as women to occur as subjects, to be referred to by pronouns, and to receive proper names. Example sentences furthermore often perpetuate gender stereotypes: for example, perpetrators of violence are predominantly male and victims are predominantly female; professionals are mostly male; and women are more often referred to using kinship terms. This suggests the importance of bringing these effects to consciousness and of continued awareness in our field. A journal paper is being drafted, to be submitted to *Language*.

Implicit gender bias in sentence processing (Grant, Kotek, Bae, and Lamontagne; presented at CUNY 2017): The stereotypical gender of NPs has been known to influence the processing of a subsequent pronoun or reflexive (Carreiras, 1996; Osterhout et al., 1997; Kennison & Trofe, 2003, henceforth K&T): a processing cost is incurred when the likely referent for a pronoun or reflexive mismatches in stereotypical gender. We present ratings of stereotypical gender for 472 NPs, including the NPs from K&T and additional terms that have become more frequent since that publication (e.g. blogger, app developer). Overall, the statistical correlation between our ratings and those in K&T was very strong: stereotypical interpretations of NPs do not appear to have mellowed over the past 15 years. Following our updated rating study, we repeated K&T's self-paced reading study, testing the stereotypical gender mismatch effect for their original items and a new item set that compared "strong" and "weak" gender biases. We find that our results are similar to the original K&T study, but we additionally find that factors such as age and gender play a crucial role in the effect: younger participants showed less bias, and female participants showed more surprisal in female-mismatch conditions, indicating that they are perhaps more affected by expectations than men. In ongoing work, we plan to replicate this study using eye-tracking, to better understand the nature of the surprisal.

The representation of women in Linguistics (Baese-Berk, Kotek, Nava, Syrett, Wurmbbrand, and Yanovich, presented at LSA 2017): We present data on the representation of women in linguistics across linguistics faculties, job searches, journal submissions and publications, conference submission and presentations, and handbook articles. Among numerous findings, several stand out. Men and women are represented in roughly comparable rates in PhD programs, but there is an overall skew in every other aspect we tested. While Phonetics/Phonology are rather healthy in terms of gender representation, within Syntax/Semantics and Computational Linguistics we find a bias toward men. This is most importantly manifested in job searches and job offers, such that men are twice as likely as women to be shortlisted, and even once a woman is shortlisted, her male competitors are more likely to be hired. We furthermore find that the same women are shortlisted multiple times, while men are shortlisted fewer times and hired more quickly, and women tend to be more senior than men on shortlists. We are currently drafting a journal paper, along with a statement to be issued by COSWL and the LSA.

### 3.5 Domains and directionality in online syntax

This is a recently-begun project, partly in collaboration with Bob Frank. I plan to teach a course on directionality and locality in syntax at Yale in Spring 2018, to serve as the launching board for more detailed research.

The most widely adopted contemporary syntactic framework, building on a tradition of work by Chomsky and colleagues since the 1960s, takes as a fundamental assumption that linguistic structures are built *bottom-up*, combining words into phrases and then sentences. This idea has correlates in language acquisition, where children first produce reduced structures consisting of a verb and its arguments, and later adding ingredients such as functional categories, inflection and agreement. It is also advantageous from the perspective of the semantics, supporting a straightforward mapping between sentence structure and meaning. This framework has therefore been productive and influential in predicting the space of possible human languages and variation.

Despite these advantages and its many successes, this theory is based on a premise we know to be false: psycholinguistic evidence teaches us that sentences are constructed from left to right, in a *top-down* manner. The current project seeks to develop a theory of grammar that takes top-down structure building as its core, building on recent efforts in the domains of binding (Bruening, 2014) and movement (den Dikken, 2018). The key innovation of the work is in focusing on the central notion of *domains of computation*. The idea that syntactic structure is built in “chunks,” one cycle or phase at a time, has been central to modern syntax. This project seeks to elucidate the nature and purpose of such domains. Notions such as binding domains, parallelism domains, prosodic domains, and domains of case assignment will be reexamined, with particular attention to the directionality involved in building such domains in typologically varied languages.

Specifically, this theory will be informed by developments in two adjacent fields — the syntax-prosody interface and the syntax-semantics interface, especially dynamic approaches to semantics. A guiding principle is that in the left-to-right composition of structure, an element may serve as the complement of a head, and later turn into the specifier of that complement, as more structure is composed. Spelling this idea out may allow us to do away with the notion of the *phase edge*, as well as Chomsky’s (2000) *Phase Impenetrability Condition*, since the accessibility of the “edge” of a phrase to an outside head may simply follow from the derivational history of the head and its sister. Likewise, this project will pursue the idea that *Assignment Functions*, a central tool in the semantic ontology, may only be updated at domain boundaries. This may allow for a new understanding of binding phenomena, as well as the purpose of Existential Closure in the verbal domain.



## References

- AnderBois, Scott. 2014. The semantics of sluicing: Beyond truth conditions. *Language* 90:887–926.
- Barros, Matthew. 2014. Sluicing and identity in ellipsis. Doctoral Dissertation, Rutgers.
- Breakstone, Micha, Alexandre Cremers, Danny Fox, and Martin Hackl. 2011. On the analysis of scope ambiguities in comparative constructions: Converging evidence from real-time sentence processing and offline data. In *Proceedings of SALT 21*, 712–231.
- Bruening, Benjamin. 2014. Precede-and-command revisited. *Language* 90:342–388.
- Büring, Daniel. 2003. On D-trees, beans, and B-accents. *Linguistics and Philosophy* 26:511–545.
- Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 89–155. MIT Press.
- Clifton, Charles Jr., and Lyn Frazier. 2012. Discourse integration guided by the ‘question under discussion’. *Cognitive Psychology* 65:352–379.
- Crnič, Luka. 2011. Getting even. Doctoral Dissertation, Massachusetts Institute of Technology.
- Cummins, Chris, and Hannah Rohde. 2015. Evoking context with contrastive stress: effects on pragmatic enrichment. *Frontiers in Psychology* 6:1779.
- den Dikken, Marcel. 2018. *Dependency and directinoality*. Cambridge University Press.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2014. Intervention in focus pied-piping. In *Proceedings of NELS 43*, ed. Hsin-Lun Huang, Ethan Poole, and Amanda Rysling, volume 1, 117–130. Amherst: GLSA.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2016a. Even-NPIs in Dharamsala Tibetan. *Linguistic Analysis* 40. Special issue on formal approaches to South Asian languages.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2016b. A streamlined approach to online linguistic surveys. *Natural Language & Linguistic Theory* 34:481–495.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2017a. Intervention tracks scope-rigidity in Japanese. In *Proceedings of LENLS 14*.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2017b. Movement and alternatives don’t mix: Evidence from Japanese. In *Proceedings of the Amsterdam Colloquium*, ed. Alexandre Cremers, Thom van Gessel, and Floris Roelofsen, 245–255.
- Grant, Margaret, Charles Jr. Clifton, and Lyn Frazier. 2012. The role of non-actuality implicatures in processing elided constituents. *Journal of Memory and Language* 66:326–343.
- Grosu, Alexander. 2004. The syntax-semantics of modal existential wh constructions. In *Balkan syntax and semantics*, 405–438.
- Hamblin, Charles. 1973. Questions in Montague English. *Foundations of Language* 10:41–53.
- Hardt, Daniel, and Maribel Romero. 2004. Ellipsis and the structure of discourse. *Journal of Semantics* 21:375–414.
- Heim, Irene, and Angelika Kratzer. 1998. *Semantics in generative grammar*. Blackwell.
- Izvorski, Roumyana. 1998. Non-indicative wh-complements of existential and possessive predicates. In *Proceedings of NELS 28*, ed. Pius N. Tamanji and Kiyomi Kusumoto, 159–173.
- Kennison, S.M., and J.L. Trofe. 2003. Comprehending pronouns: A role for word-specific gender stereotype information. *Journal of Psycholinguistic Research* 32:355–378.
- Keshet, Ezra. 2018. Counterexamples to dahl’s “many pronouns” puzzle. Presentation at LSA 2018.
- Kotek, Hadas. 2014a. Composing questions. Doctoral Dissertation, Massachusetts Institute of Technology.
- Kotek, Hadas. 2014b. Wh-fronting in a two-probe system. *Natural Language & Linguistic Theory* 32:1105–1143.
- Kotek, Hadas. 2017. Intervention effects arise from scope-taking over alternatives. In *Proceedings of NELS 47*, ed. Andrew Lamont and Katerina Tetzloff, volume 2, 153–166. Amherst, MA: GLSA.
- Kotek, Hadas. 2019. Intervention arises from scope-taking over alternatives. Manuscript.
- Kotek, Hadas, and Matthew Barros. 2018a. Ellipsis licensing and redundancy reduction: A focus-based approach. Manuscript.
- Kotek, Hadas, and Matthew Barros. 2018b. Multiple sluicing, scope, and superiority: Consequences for ellipsis identity. *Linguistic Inquiry* 49.
- Kotek, Hadas, and Michael Yoshitaka Erlewine. 2016a. Covert pied-piping in English multiple wh-questions. *Linguistic Inquiry* 47:669–693.
- Kotek, Hadas, and Michael Yoshitaka Erlewine. 2016b. Unifying definite and indefinite free relatives: Evidence from Mayan. In *Proceedings of NELS 46*, ed. Christopher Hammerly and Brandon Prickett, volume 2,

- 241–254. Amherst, MA: GLSA.
- Kotek, Hadas, and Michael Yoshitaka Erlewine. 2018. *Wh*-indeterminates in chuj (mayan). *Canadian Journal of Linguistics* 64:1–40.
- Kotek, Hadas, and Michael Yoshitaka Erlewine. to appear. Non-interrogative *wh*-constructions in Chuj (Mayan). In *Proceedings of the Workshop on the Structure and Constituency of the Languages of the Americas (WSCLA) 21*.
- Kotek, Hadas, Yasutada Sudo, and Martin Hackl. 2015. Experimental investigations of ambiguity: The case of *most*. *Natural Language Semantics* 23:119–156.
- Kotek, Hadas, Yasutada Sudo, Edward Howard, and Martin Hackl. 2011a. *Most* meanings are superlative. In *Syntax and semantics 37: Experiments at the interfaces*, ed. Jeff Runner, 101–145. Emerald Group Publishing Limited.
- Kotek, Hadas, Yasutada Sudo, Edward Howard, and Martin Hackl. 2011b. Three readings of *most*. In *Proceedings of SALT 21*.
- Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6:57–123.
- Lidz, Jeffrey, Paul Pietroski, Justin Halberda, and Tim Hunter. 2011. Interface transparency and the psychosemantics of *most*. *Natural Language Semantics* .
- Macaulay, Monica, and Colleen Brice. 1997. Don't touch my projectile: gender bias and stereotyping in syntactic examples. *Language* 73:798–825.
- Merchant, Jason. 2001. *The syntax of silence*. Oxford University Press.
- Phillips, Joshua, and Hadas Kotek. 2018. Dynamic updates and the semantics of 'otherwise'. Presentation at LSA 2018.
- Roberts, Craige. 1996. Information structure: Towards an integrated formal theory of pragmatics. In *OSU working papers in linguistics: Papers in semantics*, ed. J.H Yoon and A. Kathol, volume 49, 91–136. The Ohio State University Department of Linguistics.
- Rohde, Hannah, and Andrew Kehler. 2009. QUD-driven expectations in discourse interpretation. Presentation at LSA 2009.
- Rojas-Esponda, Tania. 2014. A discourse model for überhaupt. *Semantics and Pragmatics* 7:1–45.
- Rooth, Mats. 1985. Association with focus. Doctoral Dissertation, University of Massachusetts, Amherst.
- Schwarzschild, Roger. 1999. Givenness, avoidf and other constraints on the placement of accent. *Natural Language Semantics* 7:141–177.
- Šimík, Radek. 2010. Interpretation of multiple interrogatives: An information structure sensitive account. In *Proceedings of FASL 18*.
- Sugawara, Ayaka, Hadas Kotek, Martin Hackl, and Ken Wexler. 2013. Long vs. short QR: Evidence from the acquisition of ACD. In *Proceedings of Boston University Conference on Language Development (BUCLD) 37*. Somerville, MA: Cascadilla Press.
- Syrett, Kristen, and Jeffrey Lidz. 2009. QR in child grammar: Evidence from Antecedent-Contained-Deletion. *Language Acquisition* 16:67–81.
- Syrett, Kristen, and Jeffrey Lidz. 2011. Competence, performance, and the locality of Quantifier Raising: Evidence from 4-year-old children. *Linguistic Inquiry* 42:305–337.
- Tancredi, Chris. 1992. Deletion, deaccenting and presupposition. Doctoral Dissertation, Massachusetts Institute of Technology.
- Weir, Andrew. 2014. Fragments and clausal ellipsis. Doctoral Dissertation, University of Massachusetts Amherst.
- Wiltschko, Martina. 1997. D-linking, scrambling and superiority in German. In *Groninger Arbeiten zur germanistischen Linguistik*, ed. Werner Abraham, 107–142. Groningen: Germanistisch Institut.
- Zondervan, Arjen. 2009. Experiments on QUD and focus as a contextual constraint on scalar implicature calculation. In *Semantics and pragmatics: From experiment to theory*, ed. Uli Sauerland and Kazuko Yatsushiro, 94–112. Basingstoke: Palgrave Macmillan.
- Zondervan, Arjen. 2010. The role of QUD and focus on the scalar implicature of *most*. In *Experimental semantics/pragmatics*, ed. Jörg Editors Meibauer and Markus Steinbach, volume 175, 221–238. Amsterdam: John Benjamins.