

Extraction from definite, indefinite, and superlative DPs: An experimental approach*

Zheng Shen & Meghan Lim

National University of Singapore

1. Introduction

Despite the rich set of existing generalizations on extraction out of the nominal domain (DPs), it has received less attention from the experimental syntax literature until recently (see Huang 2022, Neal and Dillon 2021). This paper contributes to the emerging research program that puts claims regarding extraction restrictions out of DPs under scrutiny using experimental methods to gain new insights.

1.1 The definite DP island

Chomsky (1973, 1977) observes that extraction out of indefinite DPs is acceptable while extraction out of definite DPs is degraded as is shown in (1) with depiction noun *picture*. We will use a descriptive label, *the definite DP island*, to refer to this effect, though it has been labeled as *specificity effect* in the previous literature as well.

- (1) a. Who did you take [**a** picture of ___]?
b. *Who did you take [**the** picture of ___]?

The definite DP island effect has since received multiple accounts from syntax, semantics, and psycholinguistics. Syntactic accounts link the island effect to certain properties of the definite DP, such as specificity (Chomsky 1977), phasehood (Jiménez-Fernández 2012), or simply being a DP (Bowers 1987, Davies and Dubinsky 2003). Simonenko (2016) provides a semantic-based proposal and suggests that *wh*-subextraction out of a definite DP

*We would like to thank the reviewers and audience at NELS 52, Nick Huang, Aine Ito, and Jon Sprouse for their comments. Thanks also go to Kenyon Branan, Joey Lim and Beth Chan who helped with the experiments.

renders the question ‘trivial and unusable’ (668).¹ Hofmeister and Sag (2010) attribute the degradedness of extraction out of definite DPs to cognitive constraints. Erteschik-Shir (1981) argues for a discourse-based dominance analysis for this effect.

Despite the various analyses, the informal intuition of the status of the definite DP island effect is somewhat weak and subject to speaker variation, especially when the definite DP is headed by *the* as opposed to demonstratives like *that*.

Neal and Dillon (2021) applied a factorial design to the definite DP island (Sprouse et al. 2016, among others).² Two factors are included: DP TYPE (indefinite and definite) and DEPENDENCY LENGTH (long and short), resulting in four conditions in (2). The island effect is verified if the difference between (2d) and (2c) is larger than that between (2b) and (2a), i.e., a super-additive effect. They found a small but significant super-additive effect in matrix questions. However, their results also show a bimodal distribution of the judgments, i.e., the ratings were not consistent among speakers.

(2) Neal and Dillon 2021: ex. 8

- | | | |
|----|--|-------------------|
| a. | Who __ published a horrible article about Gina? | non-island, short |
| b. | Who did Olivia publish a horrible article about __? | non-island, long |
| c. | Who __ published the horrible article about Gina? | island, short |
| d. | *Who did Olivia publish the horrible article about __? | island, long |

1.2 Extracting out of superlative DPs

Superlative DPs in English are headed by the definite article. Unlike other definite DPs, however, Szabolcsi (1986) reports that extraction out of superlative DPs is OK as shown in (3), putting extraction out of superlative DPs on par with indefinite DPs. In other words, the definite DP island effect does not show up in superlative DPs despite the definite article.

(3) Who did you take [**the best** picture of __]? (Szabolcsi 1986: ex. 1)

Szabolcsi (1986) notes that sentences with superlative expressions like (4) are ambiguous between two readings: the absolute reading in (4a) and the comparative/relative reading (4b) (Heim 1999). The two readings differ crucially in the comparison sets. In the absolute reading, a salient set of mountains, in this case globally, are being compared. The relative reading compares the set of mountains that were climbed by mountain climbers.

(4) John climbed the highest mountain.

- | | |
|----|---|
| a. | John climbed Mount Everest. (absolute) |
| b. | John climbed a higher mountain than anyone else. (relative) |

¹Simenenko distinguishes between strong and weak DPs, following the semantics of definiteness proposed by Schwarz (2009). This is not a distinction that is reflected in this paper, but see Shen and Lim (Forthcoming).

²For non-factorial experiments on this issue, see Cowart (1997), Keller (2000), Tollan and Heller (2015).

Szabolcsi (1986) argues that superlative DPs with the relative reading are semantically indefinite and that the *wh*-question in (3) only has the relative reading. In a similar vein, Krasikova (2012) suggests that superlative DPs with the relative reading are headed by an abstract indefinite determiner *A*. Rather than reflect definiteness of the host DP, the definite article reflects the definiteness of the degree argument. Both of these analyses of superlative DPs predict that superlative DPs have a similar profile to indefinite DPs regarding extractability. To our knowledge, the claim that superlative DPs lack the definite DP island effect has not been experimentally tested with a factorial design.

The current study has two purposes: 1) Using factorial design to verify the status of the definite DP island effect and, 2) Experimentally compare superlative DPs with definite and indefinite DPs in terms of islandhood.

2. The definite DP island with bare *wh*-fillers: Experiments 1–4

The first set of four experiments test the definite DP island effect in *wh*-questions with bare *wh*-fillers like *who*. We will show that definite DPs consistently show the island effect when compared with indefinite DPs. However, the islandhood of superlative DPs vary across different experiments, rendering our results inconclusive.

2.1 Experiment 1

2.1.1 Design and materials

Similarly to Neal and Dillon (2021), our design includes two levels of DEPENDENCY LENGTH: movement from the subject position (short/SH) and movement out of the object DP (long/LG). We include three levels of NP TYPES: indefinite (IND), definite (DEF), superlative (SUP). This results in the following six conditions in (5).

(5) Conditions

- | | | |
|----|---|--------|
| a. | Who sold a small photo of Einstein to the gallery? | IND.SH |
| b. | Who did the photographer sell a small photo of to the gallery? | IND.LG |
| c. | Who sold the small photo of Einstein to the gallery? | DEF.SH |
| d. | Who did the photographer sell the small photo of to the gallery? | DEF.LG |
| e. | Who sold the smallest photo of Einstein to the gallery? | SUP.SH |
| f. | Who did the photographer sell the smallest photo of to the gallery? | SUP.LG |

As the first step, similar to Neal and Dillon (2021), we will compare indefinite and definite DPs (5a–d). The definite DP island predicts a super-additive effect where the difference between (5d) and (5c) is larger than that between (5b) and (5a).

Then, we will use the effect from comparing definite and indefinite DPs as a ‘signature’ for the definite DP island effect. We will compare superlative DPs with indefinite and definite DPs, respectively. If the comparison of superlative DPs and definite DPs reveals the same signature as indefinite and definite DPs, the empirical claim that superlative DPs are not islands is verified as they behave similarly to the indefinite DPs. If the comparison

between indefinite and superlative DPs reveals the same signature as indefinite and definite DPs, this indicates that the superlative DPs also block movement like the definite DPs.

12 lexically-matched sets were created for the six conditions, resulting in 72 test items. Only depiction nouns were used across all items. Verbs of creation were avoided, given claims that extraction across verb of creation was deemed more acceptable, even with a definite DP (Davies and Dubinsky 2003, Huang 2022). The experiment lists were created using a Latin Square, each participant saw one item per lexically-matched set. Each list contains 12 test items (two items per condition) and 24 filler items obtained from Sprouse et al. (2013). The sentence type (declarative vs. question), sentence length (long vs. short), and acceptability (good vs. bad) were balanced across the test and the filler items.

2.1.2 Procedure

Each item was presented to the participants visually, and with an audio recording that had to be played in its entirety before a rating could be given. We included audio stimuli to facilitate the naturalness of the sentences. The participants were instructed to rate the sentences according to their acceptability on a 7-point Likert scale with 7 being completely acceptable and 1 completely unacceptable. The experiment was conducted on Ibex Farm and the participants were recruited through Amazon Mechanical Turk.

16 filler items out of 24 formed eight minimal pairs consisting of one good and one bad sentence, based on results from Sprouse et al. (2013). These fillers were used as catch items to filter out participants. A participant is excluded from the analysis if their responses for three out of the eight pairs were not target-like: the bad sentence is rated higher or as good as the good counterpart. Responses from 28 participants are included in the analysis.

Since the research question and design of our experiment overlaps in part with that of Neal and Dillon (2021), it is worth noting the differences: 1) we included superlative DPs as a level of the NP TYPE factor; 2) we presented the sentences both visually and auditorily. 3) we included two items per condition and they included six items per condition.

2.1.3 Results

We will present the results in three parts. First, we put indefinite and definite DPs together and check if the definite DP island effect is observed. Second, we put indefinite and superlative DPs together to see if superlative DPs behaves like definite DPs, blocking subextraction. Lastly, we put superlative and definite DPs together to see if there is a super-additive effect between these DP types containing a definite article.

For each pair of DPs, we present the results in three ways: 1) the mean raw rating and z-score for each condition in Table 1; 2) the Difference in Difference (DD) scores, which is calculated as $(DP1.short - DP1.long) - (DP2.short - DP2.long)$. The DD scores serve as a measure of effect size. If no super-additive effect is observed, the DD score would be close to zero; 3) the statistical analysis using linear mixed effect models with NP TYPE and DEPENDENCY LENGTH as fixed factors and SUBJECT and ITEM as random factors.

Table 1: Mean raw ratings and z-scores based on results from 28 participants.

NP TYPE	DEPENDENCY LENGTH	mean rating	mean z-scores
Indefinite (IND)	Short (SH)	6.62	0.996
Indefinite (IND)	Long (LG)	5.18	0.299
Definite (DEF)	Short (SH)	6.70	1.030
Definite (DEF)	Long (LG)	4.64	0.0545
Superlative (SUP)	Short (SH)	6.32	0.851
Superlative (SUP)	Long (LG)	4.86	0.160

Comparison 1: Indefinite vs. definite DPs The linear mixed effect model³ reveals no main effect of NP TYPE ($F = 2.97$, $p = 0.09$). DEPENDENCY LENGTH shows a main effect ($F = 158.2$, $p < .001$): short conditions are rated higher than long conditions. Crucially, there is a significant interaction of DEPENDENCY LENGTH and NP TYPE ($F = 5.55$, $p = 0.019$). This indicates a super-additive effect predicted by the factorial definition of the definite DP island. The DD score calculated based on z-scores $((\text{DEF.SH} - \text{DEF.LG}) - (\text{IND.SH} - \text{IND.LG}))$ is 0.279. The positive DD score is again compatible with the definite DP island. The observed DD score is lower than the DD scores observed from the traditional islands like subject island, *wh*-island and complex NP island (0.56–1.15 in Sprouse et al. 2016), but similar to DD scores reported in Neal and Dillon (0.22–0.25) for the definite DP island.

Another notable result is that the rating for the DEF.LG condition is above the mid-point of the scale (4.64 out of 7 and a 0.0545 z-score), different from traditional island effects. Combined with the super-additive effect, the marginal acceptability of DEF.LG puts definite island in the category of ‘subliminal island’ (Almeida 2014).

Comparison 2: Indefinite vs. superlative DPs Having established the definite DP island effect between indefinite and definite DPs, the second comparison is between indefinite and superlative DPs. The linear mixed effect model revealed a main effect of NP TYPE ($F = 5.68$, $p = 0.018$): superlative conditions are rated lower than indefinite conditions. There is also a main effect of DEPENDENCY LENGTH ($F = 129.1$, $p < .001$): long conditions are rated lower than short conditions. Crucially, there is no interaction between the two factors ($F = 0.068$, $p = 0.795$), i.e., no super-additive effect is observed when comparing indefinite and superlative NPs. The DD score $(\text{SUP.SH} - \text{SUP.LG}) - (\text{IND.SH} - \text{IND.LG})$ is -0.006 , close to zero and notably lower than that from Comparison 1.

The signature super-additive effect between indefinite and definite DPs observed above did not show up in this comparison. Exp. 1 did not find evidence for island effect of superlative DPs, despite the presence of the definite article.

Comparison 3: Superlative vs. definite DPs The linear mixed effect model revealed no main effect of NP TYPE ($F = 0.341$, $p = 0.56$), but a significant effect of DEPENDENCY LENGTH ($F = 163.16$, $p < .0001$): the short conditions are rated higher than the long conditions. Crucially, the model revealed a significant interaction ($F = 4.5952$, $p = .033$). The

³ $\text{zscores} \sim \text{NP Type} * \text{Dependence Length} + (1|\text{subject}) + (1|\text{lexical})$

DD score ($\text{DEF.SH} - \text{DEF.LG}$) – ($\text{SUP.SH} - \text{SUP.LG}$) is 0.285, similar to that observed in the comparison between definite and indefinite NPs (0.279). Thus there is a super-additive effect between superlative DPs and definite DPs, similar to Comparison 1.

In Exp. 1, the definite DP island effect is observed with the definite DP headed by *the*, replicating the results of Neal and Dillon (2021). When comparing indefinite and superlative DPs, the island effect was not found. When comparing superlative and definite DPs, the island effect was found. The latter two findings indicate that superlative DPs and indefinite DPs show similar patterns regarding islandhood. Despite the presence of the definite article, superlative DPs did not show island effect, compatible with the literature.

2.2 Replications of Experiment 1: Experiments 2–4

Experiments 2–4 are replications of Experiment 1, as one reviewer suggested that the sample size is small. The results from these experiments only partly replicated the results from Exp. 1: the definite islandhood of the definite DPs was verified in all three replications; the results from Comparisons 2 and 3 involving superlatives, on the other hand, were not replicated and show inconsistent patterns across experiments.

Experiment 2 The design and methodology of Exp. 2 are identical to that of Exp. 1. In order to achieve higher data quality, we included three attention checks and two open-ended questions as native speaker checks. Participants who failed any of the check items were excluded from analysis. The experiment was conducted on PClbex and the participants were recruited on Prolific. Results from 50 participants were included.

In Exp. 2, the super-additive effect is found between indefinite and definite DPs like Exp. 1 ($p < 0.001$). However, unlike in Exp. 1, comparison between indefinite and superlative DPs shows a significant interaction ($p = 0.026$). Comparison between superlative and definite DPs did not show significant interaction ($p = 0.488$), again different from Exp. 1.

Experiment 3 Experiment 3 is a close replication of Exp. 2. With the identical test and fillers items as Exp. 1 and 2, Exp. 3 also includes the same check items as Exp. 2. Exp. 3 differs from Exp. 1 and 2 in that instead of the 7 point Likert scale, a slider of 100 points was used. This is to make sure that the judgment measurement is continuous. Responses from 58 participants were analyzed.

Results from Exp. 3 are in line with Exp. 2. When comparing indefinite and definite DPs, a significant interaction of the two factors was observed ($p < 0.001$). When comparing indefinite and superlative DPs, the interaction is also significant ($p < 0.01$). No significant interaction was found in the comparison between superlative and definite DPs ($p = 0.214$).

Experiment 4 So far the stimuli in Exp. 1–3 were presented both in text and with audio. In Exp. 4, the stimuli were presented with no audio. The materials and method are otherwise identical to Exp. 2. Responses of 50 participants are included in the analysis.

The results from Exp. 4 show significant interaction of the two factors when comparing indefinite and definite DPs ($p < 0.01$). However, no significant interactions were found

in the comparison of indefinite and superlative DPs ($p = 0.18$), or in the comparison of superlative and definite DPs ($p = 0.21$). The p -values of the interaction between NP TYPE and DEPENDENCY LENGTH in all three comparisons from Experiments 1–4 are listed in Table 2. The statistically significant results are in bold.

Table 2: p -values of the interaction from linear mixed effect models

	Exp. 1	Exp. 2	Exp. 3	Exp. 4
n	28	50	58	50
method	sound, 7 point	sound, 7 point	sound, slider	no sound, 7 point
ind vs. def	$p = 0.019$	$p < 0.001$	$p < 0.001$	$p < 0.01$
ind vs. sup	$p = 0.795$	$p = 0.026$	$p < 0.01$	$p = 0.18$
sup vs. def	$p = 0.276$	$p = 0.488$	$p = 0.214$	$p = 0.21$

2.3 Discussion of Exp. 1–4: Definite DP island effect with bare *wh*-fillers

Across the four experiments, the definite DP island effect has been verified with definite DPs headed by *the*: definite DPs headed by *the* block subextraction when compared with indefinite DPs. The violation of this island, however, does not result in unacceptability. In all four experiments, the DEF.LG condition has means around the middle of the scale and a z -score around 0 as is shown in Table 3.

Table 3: mean ratings of DEF.LG condition in Exp. 1–4

	Exp. 1	Exp. 2	Exp. 3	Exp. 4
z-score	0.05	0.07	0.1	−0.135
raw	4.64/7	4.56/7	59.9/100	3.95/7

Regarding the islandhood of superlative DPs, results from the experiments are not consistent, thus no conclusion can be drawn. One possible source for the inconsistency is the ambiguity of the superlative expression. As mentioned above, Szabolcsi (1986) proposes that superlative DPs only allow subextraction under the relative reading and not under the absolute reading. We had assumed that when presented with a sentence with subextraction (our SUP.LG condition), speakers would only consider the acceptability of the sentence under the relative reading. However, it is possible that for some participants, the absolute reading is accessed instead. Under this reading, the SUP.LG condition may be rated similar to DEF.LG. This possibility can be tested by controlling for the interpretations.

3. Definite DP island with complex fillers: Relative clauses and D-linked *wh*

So far we have established the definite DP island effect for definite DPs headed by *the* in matrix *wh*-questions. The definite DP island effect has generally been claimed to hold in all A' dependency (Ross 1967) and most syntactic analyses build on this claim. At the same time, earlier and recent literature suggest that the definite DP island effect may hold

in *wh*-movement but not relativization (Grosu 1981, Abeillé et al. 2020).⁴ Experiment 5 thus tests this island effect in relative clauses.

The same factors were included, rendering six conditions. Examples of the DEF.SH and DEF.LG conditions are shown in (6). To reduce complexity of the sentences, the subjects of the relative clauses were changed to proper names (*Amy* in 6b) instead of DPs (*the curator*). The PP modifier of the verb phrase (e.g., *during the auction*) was removed. Exp. 5 was done with a 7 point Likert scale and the stimuli were presented without audio, similar to Exp. 4.

- (6) a. The person who bid for the big sketch of Queen Elizabeth was rich. (DEF.SH)
b. The person who Amy bid for the big sketch of was beautiful. (DEF.LG)

In the comparison between indefinite and definite DPs, responses from 45 participants reveal no significant main effect of NP TYPE, significant effect of dependency length ($p < 0.001$), and marginal interaction ($p = 0.051$).⁵

The definite DP island effect becomes marginal in relative clauses in Exp. 5, which casts doubts on whether the island effect holds for relativization. However, note that the test items in Exp. 5 (e.g., 6) differ from Exp. 1–4 in two ways: 1. Dependency type: Exp. 5 involves relative clauses and Exp. 1–4 tested *wh*-questions; 2. Filler complexity: the fillers in the dependency in Exp. 5 include a DP followed by a *wh*-element: *the person who*, whereas the fillers in Exp. 1–4 are bare *wh*-element *who*. The difference between the island effect could have resulted from either or both of these differences.

To further identify the driving factor of the difference between Exp. 1–4 and Exp. 5, Exp. 6 tests *wh*-questions with complex/D-linked *wh*-fillers. The conditions with definite DPs are in (7). The dependency type is *wh*-question, identical to Exp. 1–4; while the fillers are complex *wh*-elements *which celebrity*, similar to Exp. 5. The rest of the design is identical to that of Exp. 4 and 5 with a 7 point Likert scale and no audio stimuli.

- (7) a. Which curator bid for the big sketch of Queen Elizabeth during the auction?
(DEF.SH)
b. Which celebrity did Amy bid for the big sketch of during the auction? (DEF.LG)

Focusing on the comparison of indefinite and definite DPs, results from 40 participants reveal a marginal interaction ($p = 0.057$), similar to Exp. 5 but different from Exp. 1–4. The results of Exp. 4–6, all conducted without audio stimuli, are summarized in Table 4.

Exp. 5 and 6 with complex fillers show marginal interaction, regardless of the dependency type involved. At the same time, the *wh*-questions with bare *wh*-elements in Exp. 4 show a significant interaction. Given the results, the marginal interaction of Exp. 5 and 6 does not support the suggestion that the definite DP island effect is only observed in *wh*-questions and not in relative clauses. The difference is likely to be driven by filler complexity. Certain syntactic locality theory such as Relativized Minimality predicts filler

⁴For more evidence against these claims, see Shen and Lim (Forthcoming).

⁵Given the inconclusive results of comparisons involving superlative DPs in Exp. 1–4, I will leave out the results of these comparisons in Exp. 5–6.

Table 4: IND vs. DEF from Exp. 4–6

	Exp. 4 (bare <i>wh</i>)	Exp. 5 Relative clause	Exp. 6 (D-linked <i>wh</i>)
dependency type	<i>wh</i> -question	<i>wh</i> -question	relative clause
filler complexity	simple	complex	complex
n	50	45	40
ind vs. def	p < 0.01	p = 0.057 (marginal)	p = 0.051 (marginal)

complexity to affect islandhood in general (see also Sprouse et al. 2016, section 6). We leave discussion of the theoretical implication of the findings for future research.

4. Conclusion

Using factorial design, experiments in this paper verified the definite DP island effect triggered by the definite article *the* in matrix *wh*-questions, replicating the findings by Neal and Dillon (2021). The violation of this island does not induce unacceptability, but rather borderline ratings. Furthermore we have observed that the island effect weakens with complex fillers in both *wh*-questions and relative clauses. Superlative DPs did not render conclusive results as neither the comparison between indefinite and superlative DPs nor the comparison between definite and superlative DPs show consistent patterns across experiments. It is possible that the ambiguity of superlative DPs has driven the inconsistency.

References

- Abeillé, Anna, Barbara Hemforth, Elodie Winckel, and Edward Gibson. 2020. Extraction from subjects: Differences in acceptability depend on the discourse function of the construction. *Cognition* 204:104293.
- Almeida, Diogo. 2014. Subliminal *wh*-islands in Brazilian Portuguese and the consequences for syntactic theory. *Revista da ABRALIN* 13:53–93.
- Bowers, John. 1987. Extended X-bar theory, the ECP, the Left Branch Condition. In *Proceedings of the Sixth West Coast Conference on Formal Linguistics (WCCFL 6)*, 47–62. Stanford: The Stanford Linguistics Association.
- Chomsky, Noam. 1973. Conditions on transformations. In *A festschrift for Morris Halle*, ed. by Stephen R. Anderson and Paul Kiparsky, 232–286. New York: Holt, Rinehart & Winston.
- Chomsky, Noam. 1977. On *wh*-movement. In *Formal syntax*, ed. by P. Culicover, T. Wasow, and A. Akmajian. New York, New York: Academic Press.
- Cowart, Wayne. 1997. *Experimental syntax: Applying objective methods to sentence judgments*. Sage Publications.
- Davies, William D., and Stanley Dubinsky. 2003. On extraction from NPs. *Natural Language and Linguistic Theory* 21:1–37.
- Erteschik-Shir, Nomi. 1981. On extraction from noun phrases (picture noun phrases). In *Theory of Markedness in Generative Grammar: Proceedings of the 1979 GLOW*

- Conference*, ed. by Adriana Belletti, Luciana Brandi, and Luigi Rizzi, 147–169. Pisa: Scuola normale superiore di Pisa.
- Grosu, Alexander. 1981. *Approaches to island phenomena*. Amsterdam: North-Holland.
- Heim, Irene. 1999. Notes on superlatives. Ms., MIT.
- Hofmeister, Philip, and Ivan A. Sag. 2010. Cognitive constraints and island effects. *Language* 86:366–415.
- Huang, Nick. 2022. How subjects and possessors can obviate phasehood. *Linguistic Inquiry* 53:427–458.
- Jiménez-Fernández, Ángel L. 2012. A new look at subject islands: The phasehood of definiteness. *Anglica Wratislaviensia* 50:137–170.
- Keller, Frank. 2000. Gradience in grammar: Experimental and computational aspects of degrees of grammaticality. Doctoral dissertation, University of Edinburgh, Scotland.
- Krasikova, Sveta. 2012. Definiteness in superlatives. In *Logic, language and meaning: 18th Amsterdam Colloquium*, ed. by Maria Aloni, Vadim Kimmelman, Floris Roelofsen, Galit W. Sassoon, Katrin Schulz, and Matthijs Westera, 411–420. Heidelberg: Springer Berlin.
- Neal, Anissa, and Brian Dillon. 2021. Definitely islands? Experimental investigation of definite islands. In *Proceedings of the 1st Experiments in Linguistic Meaning (ELM) conference*, 237–248.
- Ross, John. 1967. Constraints on variables in syntax. Doctoral dissertation, Massachusetts Institute of Technology, Cambridge.
- Schwarz, Florian. 2009. Two types of definites in natural language. Doctoral dissertation, University of Massachusetts, Amherst.
- Shen, Zheng, and Meghan Lim. Forthcoming. The definite DP island in *wh*-questions and relative clause. In *The proceedings of the 40th West Coast Conference on Formal Linguistics*.
- Simonenko, Alexandra. 2016. Semantics of DP islands: the case of questions. *Journal of Semantics* 33:661–702.
- Sprouse, Jon, Ivano Caponigro, Ciro Greco, and Carlo Cecchetto. 2016. Experimental syntax and the variation of island effects in English and Italian. *Natural Language & Linguistic Theory* 34:307–344.
- Sprouse, Jon, Carson Schütze, and Diogo Almeida. 2013. A comparison of informal and formal acceptability judgments using a random sample from Linguistic Inquiry 2001–2010. *Lingua* 134:219–248.
- Szabolcsi, Anna. 1986. Comparative superlatives. In *MIT Working Papers in Linguistics*, vol. 8, ed. by Naoki Fukui, Tova Rapoport, and Elizabeth Sagey. Cambridge: MIT Press.
- Tollan, Rebecca, and Daphna Heller. 2015. Elvis Presley on an island: *wh*-dependency formation inside complex NP objects. In *Proceedings of the forty-sixth annual meeting of the North East Linguistic Society*, ed. by Christopher Hammerly and Brandon Prickett. GLSA, University of Massachusetts.

Zheng Shen, Meghan Lim

zhengshen@nus.edu.sg, meghan.lim@u.nus.edu