

Infelicity of negated bare plurals: Not presupposition, but Partition by Exhaustification

Haoming Li and Yizhen Jiang

UBA

haomingl@mit.edu

SALT 36

The infelicity puzzle of negated bare plurals

- Bare plurals normally invite a multiplicity inference (Spector 2007; Farkas and Swart 2010, a.o.).

(1) Frank has cars.
 $\rightsquigarrow$ Frank has multiple cars.

- But the inference disappears under negation, like other scalar implicatures:

(2) Frank doesn't have cars.
 $\rightsquigarrow$ Frank has zero cars.

- However, when the positive sentence generates an implausible multiplicity inference, the negative sentence is also odd (Spector 2007; Doron 2024, a.o.).

(3) a. #Frank has Roman noses.
 b. #Frank doesn't have Roman noses.

The infelicity puzzle of negated bare plurals

- If scalar implicatures are suppressed under negation, it is unclear why the negated sentence should be odd.
- The predicted interpretation is the same as that of **Frank doesn't have a Roman nose**, which is not odd.

Why should a negated sentence containing bare plurals be odd merely because its positive, strengthened counterpart is implausible?

1. **Existing account 1 and its problems**

Presuppositional exhaustification (PEX) plus Post-Accommodation Informativity (PAI) (Doron 2024)

2. **Existing account 2 and its problems**

Obligatory exhaustification and a constraint on pruning (Magri 2011; Spector 2007)

3. **New proposal**

Partition by Exhaustification (Fox 2018; Katzir 2024) derives the infelicity while avoiding the problems

4. **Conclusion**

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

- Doron (2024) adapts a DP-internal implicature analysis by replacing ordinary EXH with PEX (Mayr 2015; Bassi et al. 2021).

$$\llbracket \text{PEX}_R [\varphi] \rrbracket = \begin{cases} 1 & \llbracket \varphi \rrbracket = 1 \wedge \bigwedge \{ \llbracket \psi \rrbracket = 0 : \psi \in R \wedge \varphi \not\Rightarrow \psi \} \\ 0 & \llbracket \varphi \rrbracket = 0 \\ \# & \text{otherwise} \end{cases}$$

- PEX is present at every scope site, following Magri (2009); Magri (2011). But I will show only the PEX instances that make a semantic difference.

(4) Frank has $[_{\text{DP}} \exists \lambda y [\text{PEX} [y \text{ Roman nose PL}]]]$

- The resulting meaning is homogenous/gappy:

$$\llbracket \text{Frank has PEX Roman noses} \rrbracket = \begin{cases} 1 & \text{Frank has multiple Roman noses} \\ 0 & \text{Frank has zero Roman noses} \\ \# & \text{Frank has exactly one Roman nose} \end{cases}$$

Where the gap comes from

- Singular and plural morphemes compete.
- PEX generates multiplicity inference inside the DP for the truth condition, but the falsity condition remains unchanged.

$$\llbracket \text{NP PL} \rrbracket = \lambda x. x \in \star \llbracket \text{NP} \rrbracket$$

$$\llbracket \text{NP SG} \rrbracket = \lambda x. x \in \star \llbracket \text{NP} \rrbracket \wedge \text{Atom}(x)$$

$$\llbracket \text{PEX } [y \text{ NP PL}] \rrbracket = \begin{cases} 1 & y \in \star \llbracket \text{NP} \rrbracket \wedge \neg \text{Atom}(y) \\ 0 & y \notin \star \llbracket \text{NP} \rrbracket \\ \# & \text{otherwise, } y \in \star \llbracket \text{NP} \rrbracket \wedge \text{Atom}(y) \end{cases}$$

$$\llbracket \text{PEX } [y \text{ Roman nose PL}] \rrbracket = \begin{cases} 1 & y \text{ is multiple Roman noses} \\ 0 & y \text{ is not a Roman nose entity} \\ \# & y \text{ is exactly one Roman nose} \end{cases}$$

- The earlier denotation is then derived assuming Strong Kleene projection of presuppositions.

PAI derives the oddness

- A principle that follows from Stalnaker's Bridge (Doron and Wehbe 2024):

Post-Accommodation Informativity (PAI)

S_p is felicitous in C only if S is nontrivial with respect to C after accommodating p .

- To see how PAI derives the oddness, it is helpful to see what the negated bare plural sentence presupposes.
- Swap the truth and falsity conditions for the positive sentence (as negation is a hole):

$$\llbracket \text{not [Frank has PEX Roman noses]} \rrbracket = \begin{cases} 1 & \text{Frank has zero Roman noses} \\ 0 & \text{Frank has multiple Roman noses} \\ \# & \text{Frank has exactly one Roman nose} \end{cases}$$

PAI derives the oddness

- In other words,

Frank doesn't have Roman noses

{ PRESUPPOSES	Frank has zero or multiple Roman noses
{ ASSERTS	Frank has zero Roman noses

- Prior to utterance, world knowledge/common sense already rules out worlds where Frank has multiple Roman noses in the context C .
- The presupposition allows only zero or multiple Roman noses.
- After accommodation, C contains only worlds where Frank has zero Roman noses.
- The assertion that Frank has zero Roman noses is trivial in C .

PAI correctly predicts oddness, by treating bare plurals as generating homogeneity presuppositions that projects through negation.

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

- The PEX + PAI approach obtains the result via a homogeneity presupposition that projects through negation.
- The positive version (same presup.) is then also predicted to show PAI effects.

- (5)
- a. I knew that John saw at least one student. But now I learned something new.
 - b. #John saw students.
 - c. John saw multiple students.

- (5a) removes “zero” worlds from the context C .
- (5b) presupposes “zero or multiple.”
- Accommodating “zero or multiple” in C leaves only “multiple” worlds in C .
- Then, the assertion “multiple” is trivial in C .

- Then if the first sentence does not remove “zero” worlds, the target sentence is predicted not to be odd.
 - This is not true; shown by a test modelled after the challenge to homogeneity presupposition of definite plurals in Bar-Lev and Bassi (2025).
- (6) A: Did John see zero students, exactly one student, or multiple students?
B: #John saw students.
B': John saw multiple students.
- (6A) does not remove any worlds from *C*.
 - Accommodating the presupposition of (6B) “zero or multiple” does not make its assertion “multiple” trivial.
 - Yet oddness remains, and so PEX + PAI overgenerates this case.

- There is a more telling example.
- (7)
- a. Yesterday John saw at least one student.
 - b. #Today, John saw students.
 - c. Today, John saw multiple students.
- (7a) talks about **yesterday**, and nothing about **today** is entailed.
 - Yet (7b) is still odd.

Homogeneity undergenerates

- On the other hand, bare plurals can be felicitous even when the context excludes the “zero” possibility, provided that focus shifts to polarity.
- (8) A: I know Mary read at least one book, but I suspect she did not read more than one.
B: No, do not worry, she **DID** read books.
- After (8A), *C* contains no “zero” worlds, and accommodating the “zero or multiple” presupposition of bare plurals will result in *C* containing just “multiple” worlds.
 - (8B) should be infelicitous according to PAI.
 - Yet it is not, or at least much better than the original infelicity result purportedly due to PAI.

PEX plus PAI does not track the true parameter that the infelicity is sensitive to, i.e., focus and the salient question.

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

Gaps do not behave like presuppositions

- Multiplicity inferences fail the **Hey, wait a minute!** test for presuppositions.
- (9) A: John knows that Mary bought either multiple jewels or no jewels.
B: Wait a minute, I didn't know that she cannot have bought exactly one.
- (10) A: Mary bought jewels.
B: #Wait a minute, I didn't know that she cannot have bought exactly one.
- This makes it doubtful that uttering a sentence containing bare plurals forces presupposition accommodation.

Without accommodation, it is unclear why PAI would even apply, as it is a constraint on accommodation.

- In response to the observation and driven by other arguments, Wehbe (2025) proposes a non-redundancy condition that concerns sentences with PEX.

Non-redundancy

An LF φ is ruled out in a context C if there is a distinct LF ψ such that (i) ψ is less complex than φ and (ii) $\forall w \in C. \llbracket \psi \rrbracket^w = \llbracket \varphi \rrbracket^w$.

- In C that admits both PEX φ and φ , PEX φ violates Non-redundancy because φ is less complex and equivalent in C .
- A matrix local accommodation operator A can make positive PEX non-redundant, and predicts non-presuppositional behavior.
→ Any presuppositions triggered by PEX must be locally accommodated before updating C .

Without A-operator

$$\llbracket \text{Frank has Roman noses} \rrbracket = \begin{cases} 1 & \text{Frank has ~~exactly one~~ or multiple Roman noses} \\ 0 & \text{Frank has zero Roman noses} \end{cases}$$

$$\llbracket \text{Frank has **PEX** Roman noses} \rrbracket = \begin{cases} 1 & \text{Frank has multiple Roman noses} \\ 0 & \text{Frank has zero Roman noses} \\ \# & \text{Frank has ~~exactly one~~ Roman nose} \end{cases}$$

- In contexts with no “exactly one” worlds, these are equivalent.

With A-operator

$$\llbracket A [\text{Frank has Roman noses}] \rrbracket = \begin{cases} 1 & \text{Frank has \textbf{exactly one} or multiple Roman noses} \\ 0 & \text{Frank has zero Roman noses} \end{cases}$$

$$\llbracket A [\text{Frank has \textbf{PEX} Roman noses}] \rrbracket = \begin{cases} 1 & \text{Frank has multiple Roman noses} \\ 0 & \text{Frank has zero or \textbf{exactly one} Roman nose} \end{cases}$$

- Contexts with “exactly one” worlds accept both.
- In those worlds, top is true, bottom is false.
- This means these are not equivalent
→ Non-redundancy not violated!

Under negation

- Then, there is an additional problem for the PEX story.
- Under negation, the A-operator repair no longer removes redundancy.
- This predicts that PEX cannot be inserted under negation at all.

Without A-operator

$$\llbracket \text{not [Frank has Roman noses]} \rrbracket = \begin{cases} 1 & \text{Frank has zero Roman noses} \\ 0 & \text{Frank has ~~exactly one~~ or multiple Roman noses} \end{cases}$$

$$\llbracket \text{not [Frank has **PEX** Roman noses]} \rrbracket = \begin{cases} 1 & \text{Frank has zero Roman noses} \\ 0 & \text{Frank has multiple Roman noses} \\ \# & \text{Frank has ~~exactly one~~ Roman nose} \end{cases}$$

- Equivalent when both felicitous.

With A-operator

$$\llbracket A [\text{not} [\text{Frank has Roman noses}]] \rrbracket = \begin{cases} 1 & \text{Frank has zero Roman noses} \\ 0 & \text{Frank has one or more Roman noses} \end{cases}$$

$$\llbracket A [\text{not} [\text{Frank has PEX Roman noses}]] \rrbracket = \begin{cases} 1 & \text{Frank has zero Roman noses} \\ 0 & \text{Frank has one or more Roman noses} \end{cases}$$

- Completely equivalent.
- A-operator does not save PEX under negation from Non-redundancy;
→ PEX cannot be inserted there!

If PEX is unavailable in under negation, it cannot explain the infelicity of negated bare plurals.

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

- There is another approach to implicature-related oddness under negation (Magri 2011).
- Based on a combination of independently motivated constraints on EXH and alternatives.

Obligatory exhaustification

Obligatoriness of EXH

EXH is present at every scope site.

Logicality of EXH

EXH negates relevant **logically** non-weaker alternatives.

$$\llbracket \text{EXH}_R [\varphi] \rrbracket = \begin{cases} 1 & \llbracket \varphi \rrbracket = 1 \wedge \bigwedge \{ \llbracket \psi \rrbracket = 0 : \psi \in R \wedge \varphi \not\Rightarrow \psi \} \\ 0 & \text{otherwise} \end{cases}$$

☞ The result might be a contextual contradiction.

Economy of EXH

An application of EXH **cannot weaken** the global meaning (Fox and Spector 2018).

☞ Irrelevant alternatives can be pruned from R to prevent weakening.

Constraint on Relevance

- For an instance of EXH, its prejacent φ is always relevant (belongs to R).
 - Contextually equivalent alternatives are either **both relevant** or **both irrelevant** (belong to R).
- ☞ An alternative ψ contextually equivalent to φ cannot be pruned from R .
- If ψ is not logically weaker than φ , then EXH will still negate it.
 - But $\varphi \wedge \neg\psi$ is a contextual contradiction if φ and ψ are contextually equivalent.
 $\longrightarrow \neg(\varphi \wedge \neg\psi)$ is a contextual tautology!

(11) Context: We know that Mary and John are compatriots.

a. #**EXH** John or Mary come from a beautiful country.

b. #It is not the case that **EXH** John or Mary come from a beautiful country.

- Here, the prejacent **John or Mary come from a beautiful country** and the alternative **John and Mary come from a beautiful country** are contextually equivalent, and the latter is logically non-weaker.
- EXH will forcibly negate the latter, and produces contextual contradiction in (11a) and contextual tautology (11b).

Application to bare plurals

- One might think that a contextually equivalent but logically non-weaker alternative could be exploited to derive the oddness of **Frank doesn't have Roman noses**.

- It comes to mind that the following are contextually equivalent:

- (12) a. Frank has at least one Roman nose.
b. Frank has exactly one Roman nose.

- However, in the DP-internal position that the multiplicity inference is drawn (Mayr 2015; Doron 2024):

- (13) EXH not EXH [Frank has [$\exists \lambda y$ [**EXH** [y Roman nose PL]]]]

- There is no contextual equivalence between the alternatives:

- (14) a. [y Roman nose PL] “ y is one or more Roman noses”
b. [y Roman nose SG] “ y is exactly one Roman nose”

Application to bare plurals

- Spector (2007) is a different multiplicity strategy involving the equivalent alternatives.

(15) $\text{EXH}_1 [\text{EXH}_2 [\text{Frank has Roman nose PL}]]$.

- EXH_1 negates the alternative **EXH_2 Frank has a Roman nose SG**.
 - negated uniqueness inference $\neg\rightsquigarrow$ “Frank does not have exactly one Roman nose.”
- Combined with prejacent “Frank has at least one Roman nose,” we get “Frank has multiple Roman noses.”
- This is a contextually contradiction.
- Under negation, this implicature is still drawn.
→ contextual tautology!

Application to bare plurals

- However, Spector (2007) relies on an unprincipled, intransitive theory of alternatives to derive the results.
- In particular, it must be assumed that
 - **a Roman nose** has **multiple Roman noses** as an alternative,
 - **Roman noses** has **a Roman nose** as an alternative, but crucially,
 - **Roman noses** does not have **multiple Roman noses** as an alternative
- ...or else we predict the uniqueness inference rather than the multiplicity inference for bare plurals.
→ unsatisfactory!

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

Partition by Exhaustification

- The empirical arguments against PEX + PAI crucially involved sensitivity to the question under discussion (QuD).
- Naturally, our proposal is based on principles of question-answer congruence.
- We choose the Partition by Exhaustification approach (Fox 2018; Katzir 2024, among others).
- A probabilistic version of Partition by Exhaustification was previously employed for bare plurals in Li and Jiang (2026) for gradient probabilistic data.
- Here we motivate Partition by Exhaustification again as a way to sidestep the empirical and conceptual problems of the existing accounts.

Main components

- The following are adapted from the version in Katzir (2024).
- For sentence S to be licensed in context C ,

F-to-Question

A suitably chosen $Q \subseteq \text{Alt}_F(S)$ must correspond to a question.

Q-A-Felicity

Q must be a good question in C , and S must be a good answer to Q .

Partition-by-EXH

Q is good in C if its elements, when exhaustified with EXH, **partition** C .

- To make the effects of Partition-by-EXH more explicit, I follow the following definition for “a set of LFs partitioning a context”:

Contextual Partitions (Bar-Lev and Fox 2023)

A set of LFs P partitions C if

1. **Non-emptiness:** $\forall S \in P. \llbracket S \rrbracket \cap C \neq \emptyset$
2. Disjointness: $\forall S, S' \in P. \llbracket S \rrbracket \cap \llbracket S' \rrbracket \cap C = \emptyset$
3. Completeness: $\bigcup \{ \llbracket S \rrbracket \cap C : S \in P \} = C$

Consequence: A partition has no empty cells. Thus each exhausted answer must be a live possibility in the context.

- **not** φ naturally provides the polar question:

$$Q = \{\varphi, \text{not } \varphi\} \subseteq \text{Alt}_F(\text{not } \varphi)$$

- With **Frank does not have Roman noses**,

$$Q = \{\text{Frank has Roman noses}, \text{Frank does not have Roman noses}\}$$

- A strategy should now emerge:
 1. Positive alternative $\xrightarrow{\text{Partition-by-EXH}}$ multiplicity inference
 2. Non-emptiness $\longrightarrow$ “multiple Roman noses” must be a live contextual possibility, violating common sense
- There are a few further steps we need to take to make sure point 1. happens.

Step 1: Return to DP-internal multiplicity with EXH

- Recall that
 1. PEX approach to multiplicity produces a problematic homogeneity presupposition.
 2. Spector (2007) uses an unprincipled theory of alternatives.
- Mayr (2015) DP-internal EXH derivation for multiplicity avoids both of these problems.
 1. EXH does not produce a presupposition on its own.
 2. Only SG and PL are required to compete as alternatives.

(16) Frank has $[_{DP} \exists \lambda y [\text{EXH} [y \text{ Roman nose PL}]]]$

- Very similar results to those seen above with PEX, just without the #-valued cases.

Step 1: Return to DP-internal multiplicity with EXH

(17) Frank has $[_{DP} \exists \lambda y [\text{EXH} [y \text{ Roman nose PL}]]]$

$$\llbracket \text{EXH} [y \text{ NP PL}] \rrbracket = \begin{cases} 1 & y \in \star \llbracket \text{NP} \rrbracket \wedge \neg \text{Atom}(y) \\ 0 & \text{otherwise} \end{cases}$$

$$\llbracket \text{EXH} [y \text{ Roman nose PL}] \rrbracket = \begin{cases} 1 & y \text{ is multiple Roman noses} \\ 0 & \text{otherwise} \end{cases}$$

$$\llbracket \text{Frank has EXH Roman noses} \rrbracket = \begin{cases} 1 & \text{Frank has multiple Roman noses} \\ 0 & \text{otherwise} \end{cases}$$

Step 2: “Magrify” Partition by Exhaustification

- The second step is to make sure Partition-by-EXH forces this multiplicity inference.
- Partition-by-EXH only guarantees matrix EXH for the alternatives.
- Yet Mayr (2015)-style multiplicity relies on embedded EXH.
- We strengthen Partition-by-EXH in the fashion of Magri 2009; Magri (2011):

Partition-by-EXH-Magri

For Partition-by-EXH, EXH is obligatorily inserted at every scope site for the alternatives, not just at the matrix level.

- This forces even embedded implicatures to be computed for the selected alternatives.

Back to the strategy for infelicity

- Recall the polar Q :

$$Q = \{\text{Frank has Roman noses, Frank does not have Roman noses}\}$$

- The exhaustified alternatives according to Partition-by-EXH-Magri are:

$$P = \left\{ \begin{array}{l} \text{EXH Frank has [EXH Roman noses]} \\ \text{EXH Frank does not EXH have EXH Roman noses} \end{array} \right\}$$

- Note the presence of DP-internal EXH, as required by Partition-by-EXH-Magri.
- This allows multiplicity inferences to be derived for the positive alternative in the manner of Mayr (2015).

Back to the strategy for infelicity

- Computing the contributions of the EXH instances, i.e., drawing the multiplicity inference of the positive alternative, we obtain:

$$P = \{\text{multiple Roman noses, zero Roman noses}\}$$

- P must partition the context. Then, **Frank has multiple Roman noses** should be a live possibility. This is ruled out by common sense.

The sentence fails because the strengthened positive alternative is not a live possibility in a context that follows common sense.

Connection to modal presuppositions (Spector 2007)

- This route to oddness meshes well with Spector (2007) intuitive description of the phenomenon.
- Spector (2007) uses the term **modal presupposition**: the use of the bare plural, regardless of its interpretation, presupposes that the sentence **could have been true of multiple members of [[NP]]**.
- The non-emptiness of cells demanded Partition-by-EXH(-Magri) translates to each strengthened alternative being a live contextual possibility prior to utterance.
- This **is** just Spector (2007) modal presupposition, if presuppositions are understood as felicity conditions.

Overgeneration case

(18) A: Did John see zero students, one student, or multiple students?

B: #John saw students.

B': John saw **multiple**_F students.

- The overt number question fixes the QuD and the partition to achieve:

{“zero”, “exactly one”, “multiple”}

- The bare plural lacks the focused numeral alternatives needed to form this partition.
- **Multiple** on the other hand can be focused to generate this partition.
- This response is similar to Bar-Lev and Bassi (2025) for the case of definite plurals.

Undergeneration case

(19) A: I know Mary read at least one book, but I suspect she did not read more than one.

B: No, do not worry, she **DID** read books.

- Focused positive polarity again form a polar partition.

{EXH Mary did read [**EXH** books], EXH Mary did not EXH read [**EXH** books]}

- The negated bare plural can sometimes receive a not-multiple reading (Jiang and Sudo 2024), possibly as an embedded implicature.

(20) John does not have cars. $\rightsquigarrow$ John does not have multiple cars.
possibly

→ {Mary read multiple books, Mary did not read multiple books.}

The right parititon is achieved through the possibility of embedded implicatures for the negative alternative.

The PEX + PAI account (Doron 2024)

Empirical issues with PEX + PAI

Conceptual issues with PEX + PAI

The obligatory exhaustification approach (Magri 2011; Spector 2007)

Partition by Exhaustification

Conclusion

- Negated bare plurals are infelicitous under negation if the strengthened positive counterpart is implausible.
- PEX + PAI (Doron 2024) captures the basic effect, but
 - mispredicts focus-sensitive cases;
 - the underlying mechanism might be inapplicable.
- Obligatory exhaustification (Magri 2011) either
 - lacks embedded equivalent alternatives (Mayr 2015) or
 - rely on an unprincipled theory of alternatives (Spector 2007).
- Partition by Exhaustification derives the infelicity while avoiding these problems.

Partitives

- (21) Context: The students in class A always appear together as a group.
#John did not see any of the students in class A.

Disjunction

- (22) Context: Mary and Sue are Siamese twins.
#I did not see Mary or Sue.

Unification with fatal competition

- The account unifies the oddness from under negation and the oddness from strong elements like **all** and **every**, the latter already explored in Bar-Lev and Fox (2023) as instances of *fatal competition*.

- (23) a. #Some Italians come from a warm country.
b. #All Italians come from a warm country.

- The strategy is that **all** and **every** has an alternative **some**.
- Due to partition by exhaustification, the **some** alternative is strengthened to **some but not all**.
- This demands that the context contains worlds where **some but not all** is true, contrary to common sense.

References

- Bar-Lev, Moshe E., and Itai Bassi. 2025. “Infelicity with Homogeneity: Focus, Not Presupposition.” *LingBuzz*,.
- Bar-Lev, Moshe E., and Danny Fox. 2023. “On Fatal Competition and the Nature of Distributive Inferences.” *Natural Language Semantics* 31 (4): 315–48. <https://doi.org/10.1007/s11050-023-09210-3>.
- Bassi, Itai, Guillermo Del Pinal, and Uli Sauerland. 2021. “Presuppositional Exhaustification.” *Semantics and Pragmatics* 14 : 11:1–48. <https://doi.org/10.3765/sp.14.11>.
- Doron, Omri. 2024. “Disjunctive Inferences and Presupposition Projection.” MIT,.
- Doron, Omri, and Jad Wehbe. 2024. “Scalar Implicatures Are Sensitive to Constraints on Presupposition Accommodation.” *Poster at the 2024 LSA Annual Meeting*,.
- Farkas, Donka, and Henriette de Swart. 2010. “The Semantics and Pragmatics of Plurals.” *Semantics and Pragmatics* 3 : 6:1–54. <https://doi.org/10.3765/sp.3.6>.
- Fox, Danny. 2018. “Partition by Exhaustification: Comments on Dayal 1996.” Unpublished manuscript. Massachusetts Institute of Technology,.
- Fox, Danny, and Benjamin Spector. 2018. “Economy and Embedded Exhaustification.” *Natural Language Semantics* 26 (1): 1–50. <https://doi.org/10.1007/s11050-017-9139-6>.
- Jiang, Yizhen, and Yasutada Sudo. 2024. “Putting Bare Plurals into Context.” Unpublished manuscript. Massachusetts Institute of Technology and University College London,.
- Katzir, Roni. 2024. “On the Roles of Anaphoricity and Questions in Free Focus.” *Natural Language Semantics* 32 (1): 65–92. <https://doi.org/10.1007/s11050-023-09214-z>.
- Li, Haoming, and Yizhen Jiang. 2026. “Oddness and Probability-Sensitivity of Number-Marked Indefinites in Negation and Questions.” In “Proceedings of Sinn Und Bedeutung 30.” Special issue, *Proceedings of Sinn Und Bedeutung* 30,.
- Magri, Giorgio. 2009. “A Theory of Individual-Level Predicates Based on Blind Mandatory Scalar Implicatures.” *Natural Language Semantics* 17 (3): 245–97. <https://doi.org/10.1007/s11050-009-9042-x>.
- Magri, Giorgio. 2011. “Another Argument for Embedded Scalar Implicatures Based on Oddness in Downward Entailing Environments.” *Semantics and Pragmatics* 4. <https://doi.org/10.3765/sp.4.6>.
- Mayr, Clemens. 2015. “Plural Definite Nps Presuppose Multiplicity via Embedded Exhaustification.” *Semantics and Linguistic Theory*, 204–24. <https://doi.org/10.3765/salt.v25i0.3059>.
- Spector, Benjamin. 2007. “Aspects of the Pragmatics of Plural Morphology: On Higher-Order Implicatures.” In *Presupposition and Implicature in Compositional Semantics*, edited by Uli Sauerland and Penka Stateva, *Presupposition and Implicature in Compositional Semantics*. Palgrave Macmillan UK. https://doi.org/10.1057/9780230210752_9.
- Wehbe, Jad. 2025. “Redundancy and Presuppositional Exhaustification.”.