Wh-island effects in Hebrew and the source of super-additivity in acceptable islands

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Background & research question
Wh-island effects are notoriously cross-linguistic variation. However, recent studies suggest that they exist in languages previously argued to be immune to them [1-3]. What does this uniformity reflect? Processing filler-gap dependencies requires active maintenance of some of the filler's features and retrieval of others [4-6]. In wh-islands, both processes might be vulnerable to interference [7] induced by the embedded wh-phrase.

We investigate whether this underlies “subliminal” island effects, focusing on Hebrew, a language previously argued to license these islands [8].

Methods: Each experiment included 24 experimental sets and 36 fillers of varied acceptability. Sentences were rated on a 7-point scale. Z-transformed data were analyzed using mixed-effects models with a maximal random structure.

Discussion

- Increased maintenance costs due to interference underlie super-additivity in Hebrew wh-islands. This could also be the case for other acceptable wh-islands, but will it account for effects in languages like English?

- Super-additivity indicates islandhood. However, rankings ( zs - 0.29) are marginally acceptable (align with intermediate fillers, contrast with English: zs -0.79 [2]).

- Reduced acceptability of Embedded | Declarative condition ( p = .02) rather than elimination of the island effect.

- Super-additivity can be observed in grammatical binding conditions which simulate retrieval (anaphors) and maintenance (cataphora) costs.

- Processing costs are apparent even in acceptable structures, which challenges processing breakthrough approaches to islands [10], and the notion that variation reflects differences in processing costs [11].

- Differential preferability of matrix resolutions in binding and extraction dependencies.

Materials

- Extraction – object position

  The journalists liked the actor [ before the producer explained that the directors guided the actor]

- Binding in embedded object position

  Anaphors ( N = 32)

  [ Before the producer explained that the directors guided the actor]

  Cataphora ( N = 32)

  [ After the maillman teased them, the tenants said that the neighbors will scold the cleaner]

- Embedded subject position ( N=56)

  [ The clients hated the architect [ who announced that the contractor will fire the workers] ]

References:

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