

## THURSDAY INTERDISCIPLINARY COLLOQUIUM

Thursday 29/02/2024

16:15-17:45

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### The missing V2 illusion in Hebrew

Doubly Center Embedded (DCE) sentences (1) albeit fully grammatical, are nigh-impossible to process, and give rise to low acceptability scores. In contrast “Missing V2” (MV2) sentences such as (2), which are derived from (1) by omitting the second verb from the structure, thereby creating what ought to be perceived as ungrammaticality, are routinely perceived to be at least as grammatical as DCE sentences. This phenomenon is known as the Missing V2 grammaticality illusion.

- (1) The result that the scientist that the virus had infected discovered was published.
- (2) The result that the scientist that the virus had infected was published.

In four acceptability rating experiments in Hebrew, we examine the status of the MV2 grammaticality illusion in Hebrew, and whether its occurrence is modulated by subject-verb grammatical gender agreement, testing the predictions of competing theories of working memory during sentence processing. In Experiment 1, we corroborate the existence of the illusion in Hebrew, comparing MV2 sentences to full double center embedded sentences and sentences with missing V1 or V3. In Experiment 2, we test whether distinct grammatical gender marking on the second NP (3) evokes significantly diminished acceptability ratings compared to (2).

- (3). \*The result-[MASC] that the scientist-[FEM] that the virus-[MASC] had infected-[MASC] was published-[MASC].

In Experiment 3, an alternative grammatical gender agreement array is tested - this time having NP1 and VP1 marked (3).

- (4). \*The result-[FEM] that the scientist-[MASC] that the virus-[MASC] had infected-[MASC] was published-[FEM].

Experiments 1 & 2 yielded a similar result: a MV2 illusion which surfaced at a similar rate in both experiments; the presence of a marked NP2 in Experiment 2 did not affect the illusion. Experiment 3, however, revealed a larger illusion. . These results support predictions made by Cue-Based Retrieval accounts of the illusion. In Experiment 3, the ultimate retrieving verb, which is marked as grammatically feminine, has access to an extra feature - namely the gender phi feature - during retrieval, leading its corresponding subject to have an added activation boost and be retrieved more readily than in the case of Experiments 1 & 2, presenting another manifestation of the markedness asymmetry. In experiment 4, we use embedding to test a possible methodological problem with the classic MV2 experimental paradigm, namely that when the main verb is omitted, the result is a grammatical, semantically plausible complex NP. The results show that participants did not, in fact, treat this condition as an NP.

*Click [here](#) to see the colloquium program.*