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**Project title**: An Experimental Investigation of Syntactic Priming and the Lexical Boost in Language Production

The following files have been archived:

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| File name | File description (Short description of content, sample size, format, any linking between different types of data, i.e. survey and interviews/focus groups) |
|  Exp1\_MemoryTask.xlsx |  MS Excel file, Experiment 1 Data file |
|  Exp2\_ControlTask.xlsx |  MS Excel file, Experiment 2 Data file |
|  Readme\_TaskEffects.docx |  Data description |

**Publications**: (based on this data, if any)

In preparation

**Description of the experiments**

In two structural priming experiments, we investigated to what extent a secondary task affected structural priming. In Experiment 1, participants carried out a structural priming task under the guise of a memory task (e.g., Bock, 1986; Bock, Loebell & Morey, 1992): on some trials, participants saw a sentence and had to indicate whether they had seen it previously. In Experiment 2, there was no such memory task.

 Participants read aloud either a prepositional object (PO; 1a, 1c) or double object (DO; 1b, 1d) prime sentence, followed by a target fragment that they could complete using either a PO or DO structure using pictures that were presented simultaneously with the target fragment (2). We also manipulated whether the verb in the prime and target was the same or different. In Experiment 1, 25% of all reading trials (i.e. without picture) re-appeared two to six sentences later, either as an identical sentence or with a slight change in the wording. Participants were asked to read them aloud and had to indicate whether the sentence was identical to a previous sentence or not. In Experiment 2, the same sentences re-appeared, but participants did not have a memory task and simply read them aloud.

1a. The carpenter lent the ladder to the apprentice.

1b. The carpenter lent the apprentice the ladder.

1c. The carpenter gave the ladder to the apprentice.

1d. The carpenter gave the apprentice the ladder.

2. The farmer gave (with pictures of a farmer, a scout and a wheelbarrow)

**Files**

Exp1\_MemoryTask.xlsx: MS Excel file, Experiment 1 Data file

Exp2\_ControlTask.xlsx: MS Excel file, Experiment 2 Data file

Readme\_TaskEffects.docx: Data description

**Participants**

Participants were recruited using the *Prolific* or *SONA* Systems and tested online using the experiment software *Gorilla*. They were all native speakers of English, residents of the UK, had no language- or literacy-related disorders and were between 18 and 35 years of age. Forty-eight participants took part in each experiment. The study was approved by the University of Dundee ethics committee and all participants gave informed consent to take part in the study.

**Explanation of variables**

ParticipantN: participant ID

List: experimental list the participant received

TrialN: trial number

Primestruct: indicates whether the prime sentence was a double object construction (DO) or a preposition object construction (PO)

Repetition: Indicates whether prime’s verb was repeated in target (same) or not (diff)

Condition: condition number (1 & 7 = PO, verb repetition; 2 & 8 = DO, verb repetition; 3 & 5 = PO, no verb repetition; 4 & 6 = DO, no verb repetition

Transcription: participant’s description of the target picture

Code: indicates the structure of the target that participants produced: 0 = DO structure, 1 = PO structure; 2 = other structure

ComplexObject: 1 = target contains complex NP object (e.g. *the nurse loaned the patient a jug of water*)

Picture: name of picture file viewed by participants in targets containing the description of the image

Sentence: prime or target sentence presented to participants

Order: order of item presentation

PrimeTarget: indicates whether the trial was a prime (1) or a target (2)

Item: item number

**Coding**

A target completion was scored as DO (coded as “0” in “Code” column) when it contained a subject NP followed by an indirect object NP and a direct object NP (e.g. *The pirate sent the princess a crown*). A target completion was scored as PO (coded as “1” in “Code” column) when it contained a subject NP followed by a direct object NP and an indirect object PP (e.g. *The pirate sent a crown to the princess*)