Chemla & Bott 2015, Using structural priming to study scopal representations [scope relations] and operation [like scope inversion].

Within-configuration: e.g. U-E prime + U-E probe; Between-configuration: e.g. U-E prime + E-U probe.

In BETWEEN-config, does [U-E with U-wide reading] prime [E-U with U-wide reading]?

If yes, representation is being primed.

or, does [U-E with U-wide reading] prime [E-U with U-narrow reading]?

If yes, operation is primed.

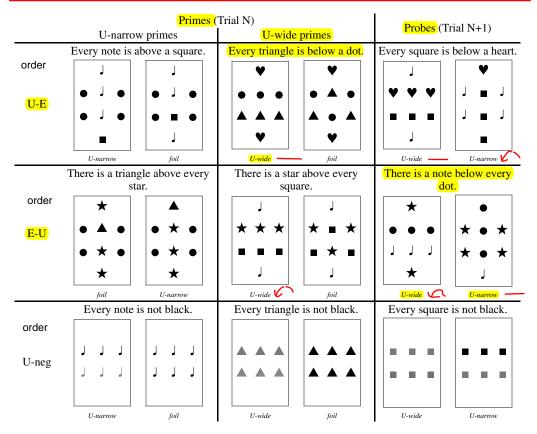
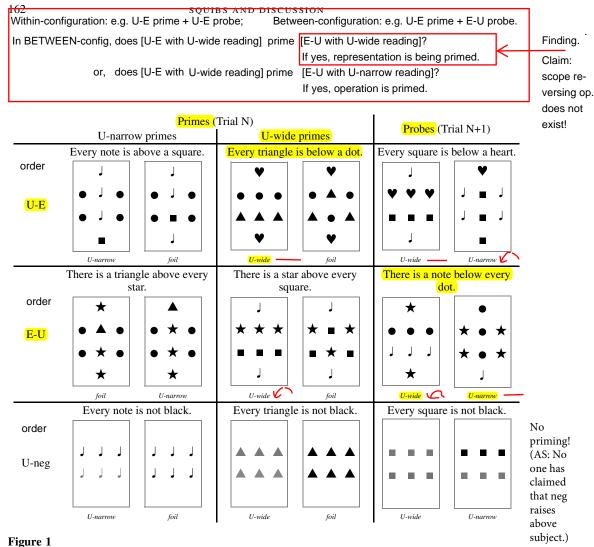


Figure 1
Examples of prime trials and probe trials. Sentence configurations are shown in rows. Each cell in the table represents a single trial. Participants read the sentence and selected one of two pictures that best matched the meaning. Each prime-probe trial pair involved either a U-wide or a U-narrow prime, followed by a probe trial. In prime trials, only one of the two pictures was consistent with the sentence, whereas in probe trials both were consistent (possible interpretations are indicated below each picture). Prime-probe pairs could be formed by using probes of the same type as the primes (the same row in the table) or a different type (a different row).

Chemla & Bott 2015, Using structural priming to study scopal representations [scope relations] and operation [like scope inversion].



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Feiman, Maldonado & Snedeker 2020, Priming quantifier scope: reexamining the evidence against scope inversion.

## Observation:

In C&B, U-wide and U-narrow each reliably correspond to a particular visual arrangement It is possible that priming is VISUAL and has nothing to do with the linear or scopal order of the QPs.

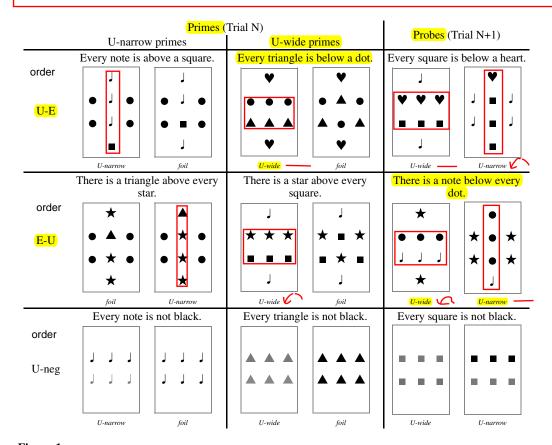


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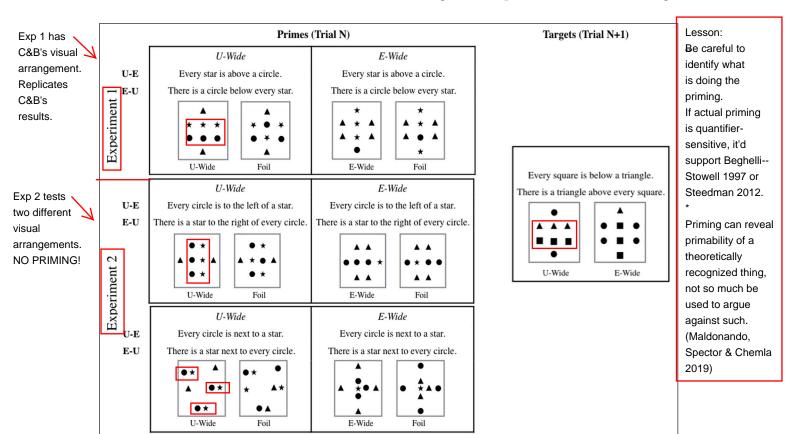
## 2.1.2 Materials

Sentences. Experimental sentences were constructed according to one of two frames:

- U-E sentences: Every [shape 1] is [predicate] a [shape 2]
- E-U sentences: There is a [shape 1] [predicate] every [shape 2]
- Filler sentences: Every [shape] is [color]

The shapes were hearts, squares, triangles, stars, diamonds or circles. The predicates were *above* and *below*. Examples are shown in Figure 1 (upper panel). There were four lists of stimuli, with participants randomly assigned to a list. Each list was obtained by randomly inserting shapes into the appropriate sentence frame (with shape 1 and 2 always differing from each other). Within a list, trials were administered in random order to each participant using the Ibex platform created by Alex Drummond (http://spellout.net/ibexfarm/).

*Images.* For each sentence, we constructed three types of images: a foil (F) consistent with none of the interpretations, an image consistent only with the U-wide interpretation, and an image consistent only with the E-wide interpretation. Prime trials paired a sentence with its foil image and either a correct U-wide or E-wide image. The choice of the correct image thus forced one of the two interpretations. Target trials paired a sentence with a correct U-wide and a correct E-wide image. Participants thus chose the image



**Figure 1:** Sample prime and target trials in Experiment 1 (upper) and Experiment 2 (lower). Experiment 1 has the predicates *above* and *below*, replicating Chemla & Bott (2015). Experiment 2 used two types of predicates in the primes: LEFT/RIGHT (top) and *next to* (bottom). Participants read one sentence (either U-E, on the top row in each trial, or E-U, on the lower row) and had to choose which of the two pictures matched that sentence. Among the prime trials, examples of U-wide primes are on the left and of E-wide primes are on the right. The right-hand picture in each pair of prime trials shows the foil, or incorrect choice. The left-hand picture shows correct prime choices (either U- or E-wide, depending on the type of prime). On target trials, the left-hand picture shows the U-wide choice and the right-hand pictures shows the E-wide choice corresponding to the example sentence.