Scope Economy Task Design

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1 The questions that the experiment will address

- Is children's LF movement sensitive to the combination of the locality and economy conditions observed in adults? Ultimately, is LF movement acquired as being inherently subject to the locality and economy conditions?

- Specifically, is children's LF movement also sensitive to Scope Economy and Shortest Move as defined based on the adult data?

2 Task design

- A story that is compatible only with the inverse scope reading is presented to the child.

- The child is then asked to give truth value judgements to the sentences.

- The surface and inverse scope readings of the sentences are listed after the SS and IS labels, respectively.

- Scope Economy predicts that the inverse scope reading for (2) and (3) are unavailable.

- The expected truth value judgements (assuming children have adult-like behavior) are specified in the parenthesis.

- The test items are as follows:

    (1)   A monkey hugged every rabbit, and a dog did, too. (T)
            SS $\exists\ \forall$ and $\exists\ \forall$ (F)
            IS $\forall\ \exists$ and $\forall\ \exists$ (T)

- Because (1) allows both readings and one of them is compatible with the story, it will be judged true.

    (2)   A monkey hugged every rabbit, and Cookie Monster did, too. (F)
            SS $\exists\ \forall$ and Def $\forall$ (F)
            IS   *$\forall\ \exists$ and Def $\forall$

- The reading of (2) that is compatible with the story is ruled out by Scope Economy, and so will be judged false.

(3)   A monkey hugged every rabbit, and every dog did, too. (F)

    SS   ∃ ∀ and ∀ ∀ (F)

    IS   *∀ ∃ and ∀ ∀

- The reading of (3) that is compatible with the story is ruled out by Scope Economy, and so will be judged false.

3   Control ideas

- No VP ellipsis and simple sentences with inverse scope

(4)   A monkey hugged every rabbit.

- No VP ellipsis and conjunction of inverse scope and surface scope

(5)   A monkey hugged every rabbit and Cookie Monster hugged every dog.

4   Linking hypothesis

- Truth value judgment reflects available LF structures for the sentence.

5   Possible patterns of results

(a) If (1) is judged true with inverse scope in inverse scope-only context: kids have inverse scope.

(b) If (a) holds and

- (2) and (3) are judged false: kids have Scope Economy and Shortest Move;
- (2) and (3) are judged true: kids lack at least one of Scope Economy and Shortest Move.

6   Questions for class

- Should we have a conjunction of two clauses or two independent clauses?

(6)   a.   A monkey hugged every rabbit, and a dog did, too.
          b.   A monkey hugged every rabbit. A dog did, too.

- How to block so that we make sure that all kids have inverse scope in the absence of Scope Economy effects but don't get carryover effect?

- Acting out or one still slide?