1. INTRODUCTION

Plural expressions are often ambiguous between (at least) two readings: a COLLECTIVE and a DISTRIBUTIVE reading.

1. The kids carried a box.

COLLECTIVE

DISTRIBUTIVE

Experimental studies have shown that the processor prefers the collective interpretation of plural expressions. Why is that?

Highlights:
• Only one type of collective interpretations preferred
• Parser’s choice syntactically driven

2. PREVIOUS WORK

Frazier et al. (1999):
Eye-tracking study on the effect of early/late disambiguation towards distributivity or collectivity

- Early disambiguation:
  1. Distributive: Lynne and Patrick each saved $1000 to pay for their honeymoon.
  2. Collective: Lynne and Patrick together saved $1000 to pay for their honeymoon.

- Late disambiguation:
  3. Distributive: Lynne and Patrick saved $1000 each to pay for their honeymoon.
  4. Collective: Lynne and Patrick saved $1000 together to pay for their honeymoon.

Late disambiguation, (3), increases reading measures (first pass, total times, regressions) compared to late collective disambiguation, (4). Early distributive disambiguation, (1), does not significantly increase reading measures compared to early collective disambiguation, (2).

Interpretation: Potentially ambiguous predicates are interpreted collectively by the processor ⇒ garden-path like effect in late distributive disambiguation (cf. also Kaup et al., 2002, Boylan et al., 2011, Patson, 2014)

3. EXPERIMENT I (SELF-PACED READING)

- Early disambiguation:
  1. The ambitious girls individually/together won an award during the science fair.

Why individually?: Each in its early position is often treated as a different semantic entity than the late each (Zimmermann, 2002). Are the findings of Frazier et al. solely due to the difference between the early each and late each? (Conclusion from Experiment I: No.)

Main findings:
• Distributivity × Late disambiguation ⇒ slowdown (Spillover during the science) β = 0.08, t = 2.2); supports Frazier et al.

4. EXPERIMENT II (SELF-PACED READING)

- Object present: 1. Early: The girls individually/collectively won an award during the science fair.
  2. Late: The girls won an award individually/collectively during the science fair.

- No object: 3. Early: The girls individually/collectively won an award during the science fair.
  4. Late: The girls won individually/collectively during the science fair.

Main findings:
- Late disambiguation ⇒ slowdown (Spillover during the science) β = 0.09, t = 2.5.
- Object ⇒ speedup (Spillover the: β = −0.07, t = −2.6).
- Distributivity × Late disambiguation ⇒ speedup (Spillover science: β = −0.11, t = −2.9).
- Phrasal distributivity × Late disambiguation ⇒ slowdown (Spillover science: β = 0.18, t = 3.1).

Why to test: There is a distinction between phrasal and lexical distributivity/collectivity (Roberts, 1989, Winter, 2001, Kratzer, 2013, a.o.):

1. The students won.
2. The students won an award.
3. The students won an award.
4. – a syntactically composed predicate; distributive interpretation triggered by an extra syntactic mechanism (an operator, Dist).
5. – syntactically composed predicate; distributive interpretation.

Are both types of distributivity dispreferred? (Conclusion from Experiment II: no, only phrasal distributivity is.)

Interpretation: The findings (wrt distributivity) compatible with the position that the processor prefers phrasal collectivity of ambiguous predicates.

• support for two types of distributivity ≈ parser’s preference for collectivity syntactically driven