

# The unexplained symmetric reading of reciprocal sentences

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- Sentence (1) can be true in a 'symmetric' situation:

Context: *The French students hit the Italian students and the Italian students hit the French students.*

(1) **The French students and the Italian students hit each other.**

- On standard theories of plurality (e.g., Link 1983), conjunction of two pluralities generates a flat plurality.
  - How does the compositional semantics gain access to the two subpluralities that hit each other?
- Landman (1989):** a group-forming operator ( $\uparrow$ ) may apply to plural noun phrases.
  - $\uparrow$  [*the French students*] and  $\uparrow$  [*the Italian students*] denotes a plurality containing two atomic groups.
- Schwarzschild (1995):** plural arguments are always interpreted relative to a cover of their denotations.
  - This may be any cover that is recoverable from context.
- Schwarzschild:** (2) and (3) don't have a relevant node in the LF for  $\uparrow$ , but they are also true in this context.

(2) **The students from the two countries hit each other.**

(3) **The students hit each other.**

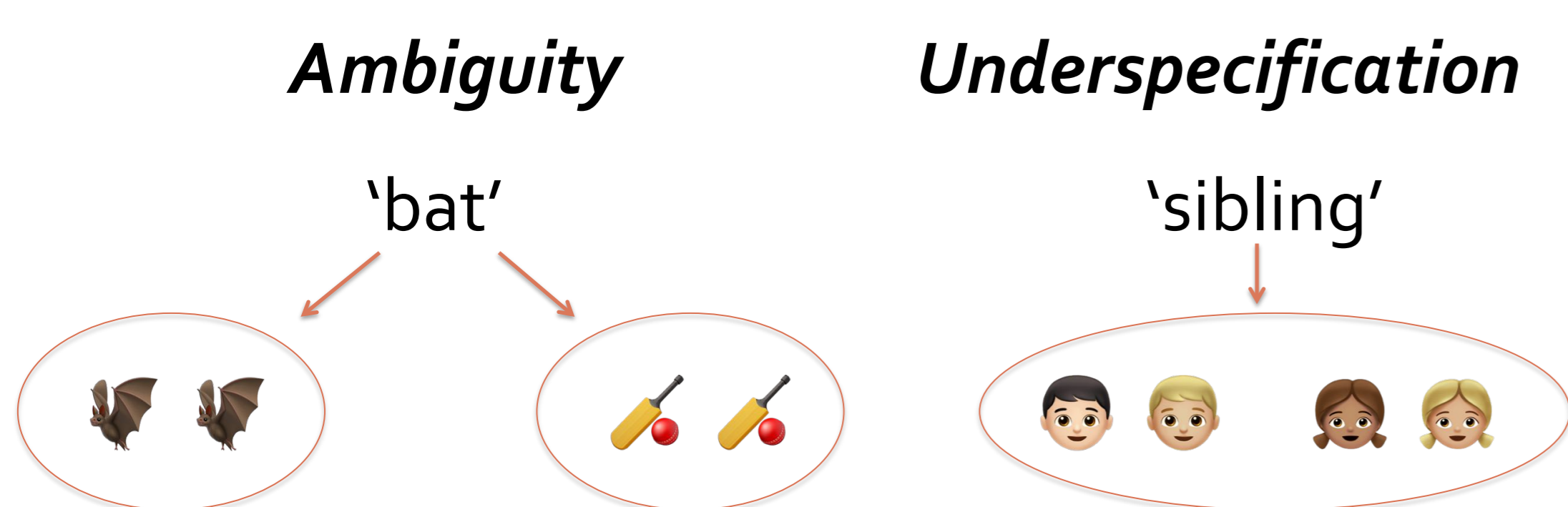
- Our contribution:** An informal survey tests the possible readings of sentences (1), (2) and (3).
  - The attested readings are explained neither by theories like Landman's nor like Schwarzschild's.

	Landman	Schwarzschild	Reality
Sentence (1)	✓	✓	✓
Sentence (2)	✗	✓	✓
Sentence (3)	✗	✓	✗

The 'unexplained' reading

## Ambiguity vs. underspecification

- Sentence (3) may be *true* in the target context, but this does not mean that it is a separate *reading*.



- Ambiguity:** there are situations in which it's judged true under one reading and false under another. (Gillon 2004)
- Useful test:** ellipsis + negation.

Context: *This class has only French and Italian students. On Monday, a fight broke out: the French students hit the Italian students, and the Italian students hit the French students. On Tuesday, another fight broke out, but this time within the two groups: the French students hit one another, and the Italian students hit one another.*

- On Monday, the French students and the Italian students hit each other, but not on Tuesday.
- On Monday, the students from the two countries hit each other, but not on Tuesday.
- On Monday, the students hit each other, but not on Tuesday.

Context: *This zoo has two types of tigers—African tigers and Asian tigers—who typically live together. In April, there were two special exhibits, one on African animals and one on Asian animals, so the zookeeper separated the tigers into two groups according to their continent of origin. In May, it was mating season, so to have careful control over breeding, the zookeeper again separated the tigers into two groups, but this time by sex.*

- In April, the zookeeper separated the African tigers and the Asian tigers, but not in May.
- In April, the zookeeper separated the tigers of the two continents, but not in May.
- In April, the zookeeper separated the tigers, but not in May.

Context: *Congress consists of Democrats and Republicans. The members of congress often nominate representatives to carry out various tasks. On Monday, two representatives were nominated to draw up a budget proposal: one was nominated by the Democrats, the other by the Republicans. On Tuesday, two new representatives were nominated to evaluate the pension program: one was nominated by the senior members of congress, the other by the junior members of congress.*

- On Monday, the Democrats and the Republicans nominated a representative, but not on Tuesday.
- On Monday, the congress members from the two parties nominated a representative, but not on Tuesday.
- On Monday, the congress members nominated a representative, but not on Tuesday.

Context: *The Department of Philosophy and the Department of Linguistics are conducting a joint job search. On Monday, the philosophers met on floor 8 to discuss the candidates, while the linguists did the same on floor 7. On Tuesday, the senior faculty met on floor 8 to discuss the candidates, while the junior faculty did the same on floor 7.*

- On Monday, the philosophers and the linguists met, but not on Tuesday.
- On Monday, the faculty from the two departments met, but not on Tuesday.
- On Monday, the faculty met, but not on Tuesday.

## Discussion

- Unlikely that Schwarzschild could explain the data via pragmatics, since (c) sentences were always presented following (a) and (b) on the same screen, so the relevant cover should in principle be highly salient in all cases.
- The reading is not due to group-forming operators, nor to 'generalized conjunction' (Partee & Rooth 1983), since it is also available for (2), whose subject is a single noun phrase, without conjunction.
- The explanation cannot be specific to *each other*, since the same pattern holds across the other contexts, too.
- Possible direction for analysis:**
  - Revise Schwarzschild so that choice of covers is restricted to *dynamically accessible pluralities*.
  - Cumulative readings establish a formal, dynamically retrievable association between two pluralities. (cf. Brasoveanu 2008, Dotlačil 2011)

## References

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