

Iconic biases on quantification in sign language

Jeremy Kuhn (jeremy.d.kuhn@gmail.com) Institut Jean Nicod, CNRS, EHESS, ENS



OVERVIEW

- New observation: Sign languages tend to *have* distributive concord but *not have* negative concord.
- **Explanation:** Sign languages have an *iconic pressure* to represent discourse referents in space. This conflicts with negative concord.

SEMANTIC TYPOLOGY

Negative concord (\neg)

- (1) Maria non ha visto nessuno.Mary not has seen nobody.'Mary didn't see anybody.'(Italian)
- (2) a. Mary saw nothing.
 - b. Mary didn't see nothing. = 'Mary *did* see something.'

 (Standard English)

Distributive concord (\forall)

- (3) Minden gyerek hozott egy-egy könyvet. Every(DIST) child brought one-DIST book. 'Every child brought one book.'
- (4) # Every child read one book each.

Semantic typology:

		-NC	+NC	
$\overline{-\Gamma}$	C	English	Italian	■ = Spoken
		German	French	\blacksquare = Sign
		Dutch	Portuguese	
			English (some dialects)	
$\overline{+\Gamma}$)C	Kaqchikel	Hungarian	
		American S.L.	Russian	
		French S.L.	Japanese	
		Italian S.L.	French (Côte d'Ivoire)	
		German S.L.	Russian S.L.	
		Catalan S.L.		

Sign languages frequently have negative concord with non-manuals.

neg

5) IX-1 NOT UNDERSTAND. 'I don't understand.'

(ASL)

(Hungarian)

(English)

But negative concord with manual signs is less frequent.

(6) NOBODY CONTRACT SIGN (*NOT).

'Nobody signed the contract.'

(LIS)

Why are sign languages mostly in that bottom-left corner?

DISCOURSE REFERENCE

Hypothesis: Concord is fundamentally linked to discourse reference.

(7) I saw a man in the road. He was whistling.

Distributive concord (\forall)

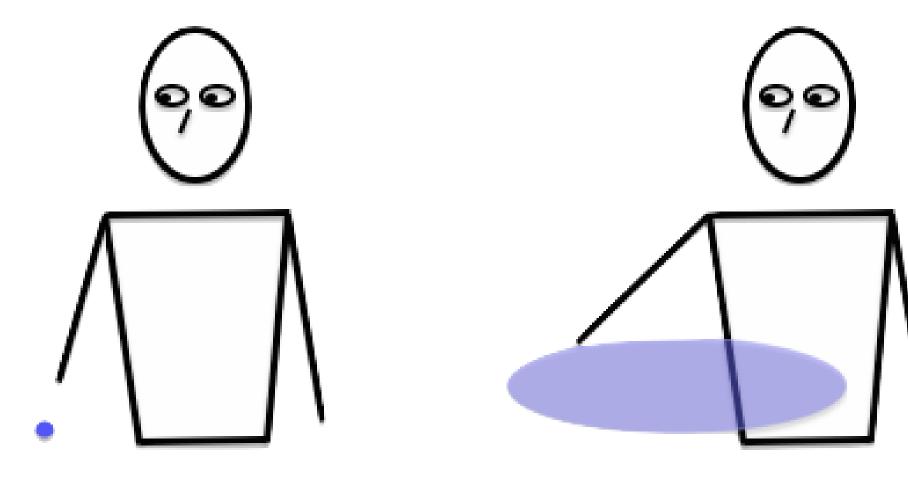
- *Distributive concord* is licensed only in environments that generate a plurality of discourse referents.
 - (8) Each professor nominated a student.
 They could each win a 100 euro prize.
 - (9) Minden gyerek hozott egy-egy könyvet. (Hungarian)
- The word *egy-egy* flags the fact that, later in the derivation, the discourse referent will be a plurality.

Negative concord (\neg)

- *Negative concord* is licensed only in environments that block the introduction of discourse referents.
 - (10) a. I didn't see a student in the room. ??He was studying hard.
 - b. I went to the party without a date.??He was wearing a tuxedo.
 - (11) a. Maria non ha visto nessuno.
 - b. Ci sono andato sensa nessuno. (Italian)
- The word *personne* flags the fact that, later in the derivation, the set of discourse referents will be empty.

SIGN LANGUAGE

- Discourse reference in sign language uses space.
- Individuals and sets are iconically represented.



(12) a. JOHN ENTER.

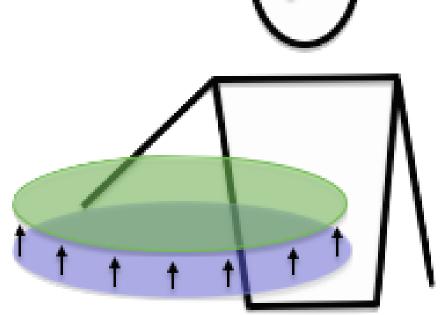
HE HAPPY.

b. MY FRIENDS ENTER. (ASL)
THEY HAPPY.

THE USE OF SPACE IN SIGN LANGUAGE

Distributive concord (\forall)

- Sign languages not only *have* distributive concord, but are similar in how it is morphologically expressed.
- The movement of the numeral iconically expresses the plural discourse referent.
- Spatial association iconically expresses semantic association.
- (13) воу тнеу read one-arc воок. 'The boys (each) read one book.'



(၅ဝ

Negative concord (\neg)

- Here, there's a conflict!
 - *The meaning of negative concord:*Signals that the set of discourse referents is empty.
 - Iconic impulse of sign language:
 Discourse referents are represented in space.
- You cannot demonstrate the non-existence of an entity by pointing at something.
- This pressure only holds for *manual signs*.
- Recall:
 - Negative concord involving non-manuals = frequent.
 - Negative concord involving manual signs = rare.
- Why?
 - Non-manual signs do not use space.
 - No iconic pressure!

Note: these are biases, not absolutes.

- When addressing typology, we talk about pressures:
 - What is it easy for this language to do?
 - What is it hard for this language to do?
- I claimed: discourse reference is central to concord.
- Quirky sign language typology is explained based on what it's *easy* and *hard* to represent in space.