EXPERIMENTAL EVIDENCEFOR NON-INTERSECTIVE
VP-CONJUNCTION IN CHILDREN AND ADULTS

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## BACKGROUND

## Point of departure

- Conjunction: Intersective analyses (IAs) (e.g. [1, 2, 3]) vs. non-intersective analyses (NIAs) (e.g. [4, 5, 6]):
(1) The six girls are reading $P_{P}$ and drinking $Q_{Q}$
(2) a. $P$ and $Q$
b. IA: $\{x: P(x) \wedge Q(x)\}$
c. NIA: $\{x: \exists y, z[y \oplus z=x \wedge P(y) \wedge Q(z)]\}$


## Predictions

- IAs predict availability of stronger intersective construal (IC) w/o further assumptions. (1) is true in S1 and false in S2.
- NIAs predict availability of weaker non-intersective construal (NIC) and intersective construal (IC). (1) is true in S 1 and S 2 .
(3) a. S1: There are 6 girls. The 6 girls are reading and the 6 girls are drinking.
b. S2: There are 6 girls. 3 of the girls are reading and the other 3 girls are drinking.

CLAIMS IN THE LITERATURE

- NIC is marginal ([3])
- NIC as a result of pragmatic mechanisms and restricted to cases in which the conjuncts denote disjoint properties ([7]) (but cf. [8] for a slightly different take)


## Research Questions

Main goal of the experiment: Test for 1) availability of NICs and 2) relevance of the semantic relations of the conjuncts' denotation of VP-conjunction of predicates P and Q in German.

1. General availability of NIC in configurations where
(a) P and Q are non-disjoint?
(b) P and Q are disjoint?
2. Asymmetrie between configurations with disjoint and non-disjoint predicates?
3. Preference for situations where non-disjoint predicates overlap or situations where they don't?
4. Differences between adults and children w.r.t. availability of construals and preference for situations?

## EXPERIMENT

- Participants: 48 children (6-10 years), 34 students as controls, German native-speakers
- Methods: Semantic Choice Task with Picture Selection Task. Eye-movement recorded with Eyelink 1000 with remote tracking ( 500 hz )
- Conditions:
(1) Overlapping scenarios with non-disjoint predicates NIC/IC

(i) The six frogs are sitting and sticking out their tongue.
(2) Non-overlapping scenarios with disjoint predicates -

(ii) The six frogs are sitting and jumping.
(3) Non-overlapping scenarios with non-disjoint predicates - NIC

(iii) The six frogs are sitting and sticking out their tongue.
(4) Overlapping vs. non-overlapping scenarios with non-disjoint predicates - Preference

(iv) The six frogs are sitting and sticking out their tongue.




## Preliminary Results



## DISCUSSION

- The results show that the NIC of VP-conjunction is not marginal and generally available for both children and adults ([3]). However, this does not tell us anything about the semantics, i.e. which meaning of conjunction might be derived semantically.
- Contrary to previous claims in the literature ([7]), the findings suggest that the NIC is available irrespective of the involved predicates. Although there is an effect of the denotation of the conjoined predicates, NICs are not restricted to configurations in which the conjuncts denote disjoint properties.
- The fact that children access the NIC more frequently
than adults does not support the assumption that the NIC is derived via pragmatic inferences ([7]): If this was the case, we would expect to find the reverse pattern.
- More specifically, the fact that in contrast to the judgments of adults the conjuncts' denotation seems to have only a small effect on the judgements of children shows that the NIC is not a "special case" ([3]).
- An open question is why children, who seem to be more tolerant in their interpretation, exhibit - just like adults - a strong preference for situations in which the properties overlap.

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    (13) Coad Guyter, 1983: Flexibility Principipes in Boolean Semantics. MITT Press, Cambridge Massachusets, 2001 ,
    [3] Yoad Winter: Flexibilty Principles in Boolean Semantics. MIT Press, Cambridge, Massachusetts, 2001 .
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