

# **German children's comprehension of reciprocals and reflexives**

Insa Gülzow

Hamburg University

# German reciprocals

- German has two markers of reciprocity, *einander* and *sich*.

*Sie küssen einander.*  
,They are kissing each other`.



# German reciprocals

- *Sich* is ambiguous between a reciprocal and a reflexive reading.

*Sie rasieren sich.*

„They are shaving each other“.

„They are shaving themselves“.



# German reflexives

- With singular subjects however, *sich* is a marker of non-distinguished agent and patient.

*Er rasiert sich.*  
,He is shaving himself`.



# German pronouns

- With singular subjects, object pronouns *sie/ihn* are markers of distinguished agent and patient.

*Er rasiert ihn.*  
,He is shaving him`.



# Symmetric predicates

Symmetry is a semantic property of predicates that denote typically other-directed actions.

- *Sarah married / met Paul.*

Perfect symmetry can be expressed by encoding of semantic arguments by same grammatical relation.

- *They married / met / dated. Sie heirateten / trafen sich.*

Some verbs frequently express symmetry, but do not imply symmetry in transitive constructions.

- *They kissed / hugged / touched.*
- *Sarah kissed / hugged / touched Paul.*

# Grooming verbs

Some verbs denote typically self-directed actions.

- *She washed herself.*
- *The boy dressed himself.*

These verbs may appear without ‚heavy‘ marking.

- *He washed. / Jan waste zich. / **Er wäscht sich.***

With plural subjects a reflexive interpretation is obligatory or favoured.

- *They shave. / **Sie rasieren sich.***

# Lexical and grammatical encoding

Language reflects different situation types in lexical and grammatical marking.

- some predicates are inherently symmetric (or inherently reflexive)
- with others symmetry can be expressed by the use of a reciprocal marker

*meet marry hug kiss shave wash*

lexical ← → grammatical



# Lexical and grammatical encoding

Situation types discussed as exemplifying reciprocal situation types are not necessarily encoded with reciprocity markers.

Hurst & Nordlinger 2007

Reciprocal constructions are [...] grammatical means for expressing (fully) symmetrical relations independent of the lexical meaning of a more than one place predicate.

König & Vezzosi 2004

# Historical development

Reciprocal forms in Germanic:

„reciprocity fell to the responsibility of the lexicon rather than of grammar“

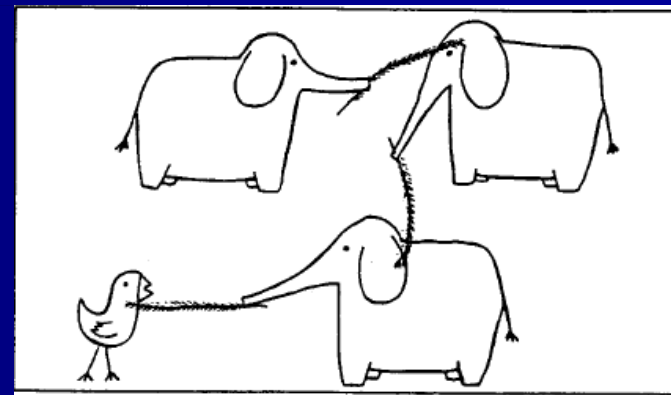
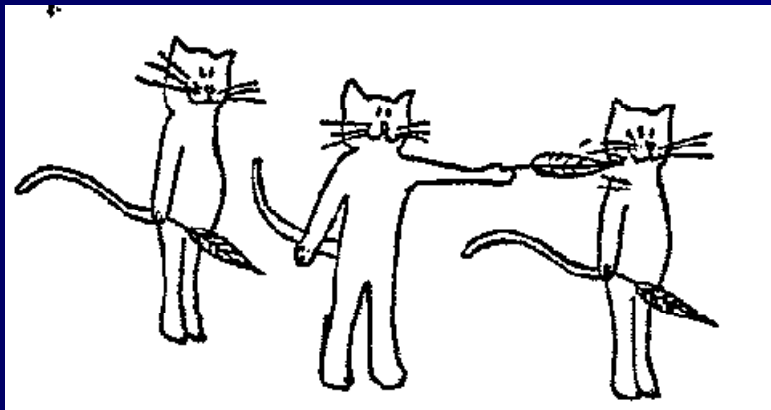
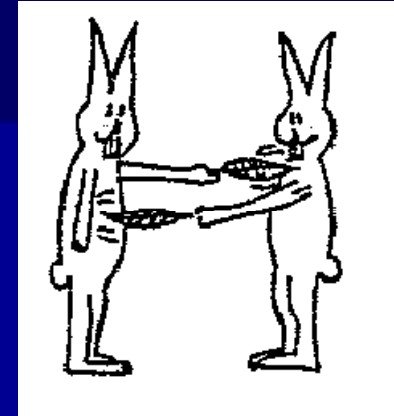
Frans Plank 2008

# Hypotheses

- Children understand symmetry as a property of certain events before they understand reciprocals as grammatical markers of symmetrical relations between participants.
- Children understand distinguished (non-distinguished) participants as a property of certain events before they understand pronouns (reflexives) as grammatical markers of this relation.

# Reciprocals in language acquisition

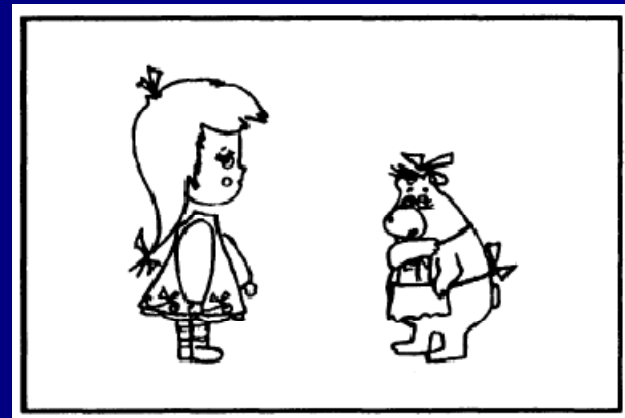
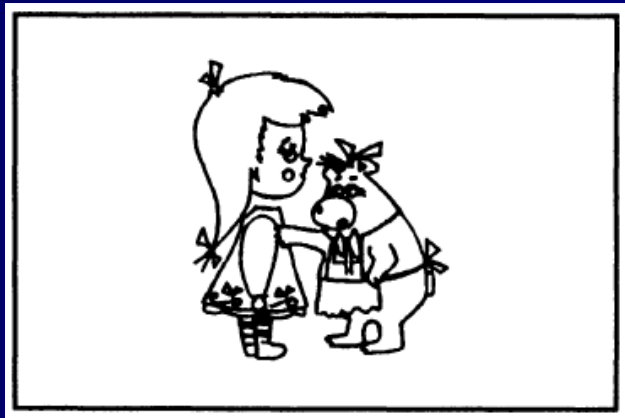
- 4;10-6;9 (Norwegian) understand reciprocals with two antecedents, but fail with more



- 4;4 (English) interpret reciprocals target like in some cases

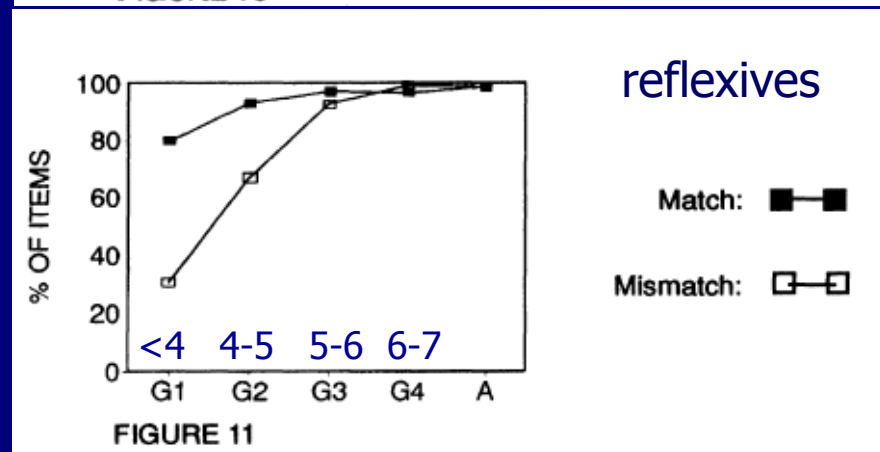
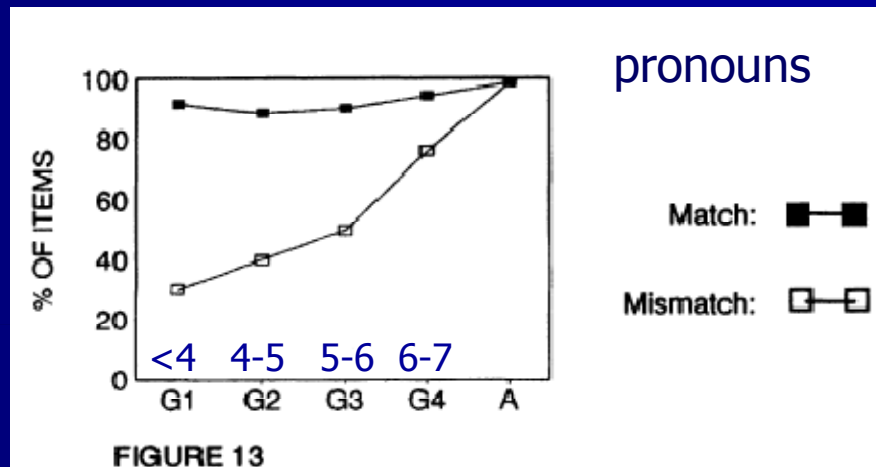
# Chien & Wexler 1990

- *touch / point to / wash*
  - Is Mama bear touching herself?
  - Is Mama bear touching her?



# Pronouns and reflexives in language acquisition

- DPBE
  - English
  - Dutch
- No DPBE
  - Italian
  - French
  - Spanish
  - German



Chien & Wexler 1990, Philip & Coopmans 1996, McKee 1992, Jakubowicz 1993, Baauw, Escobar and Philip 1997

# Interim summary reciprocals

- Symmetry in events can be expressed by symmetric predicates and reciprocal constructions or a combination of both.
- There are two markers of reciprocity in German: *einander* and *sich*.

# The first study

- Comprehension of *einander* and *sich* in sentences with two types of predicates
  - frequently symmetrical and other-directed  
*kiss / hug / touch*
  - typically self-directed  
*shave / wash / dress*



# Study design

„Zeig mir, wo sie *sich* rasieren“.

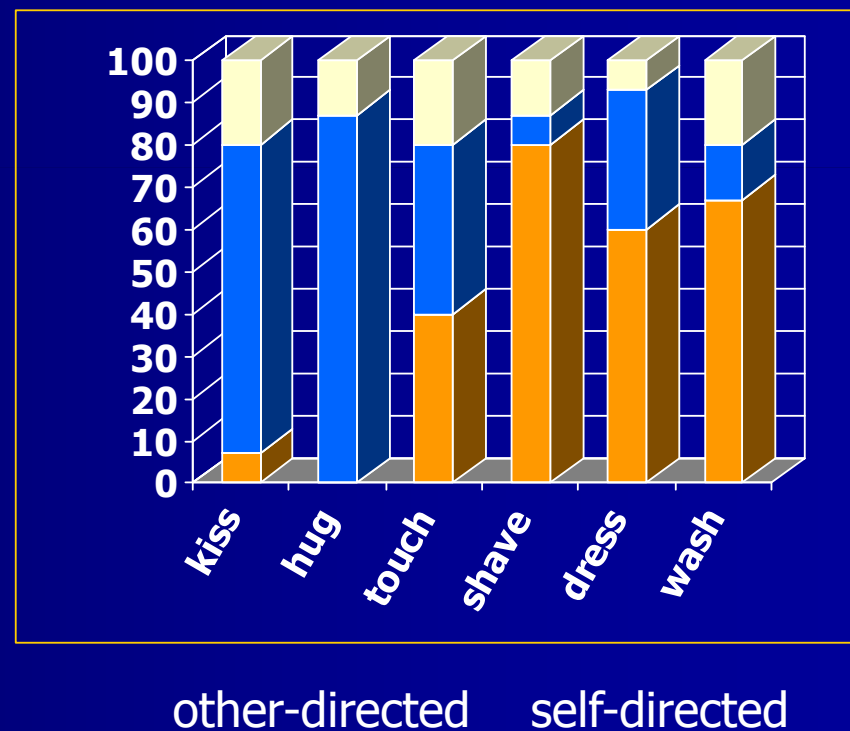
„Zeig mir, wo sie *einander* rasieren“.



# Results

Adults (N=13) display a semantic bias with *sich*.

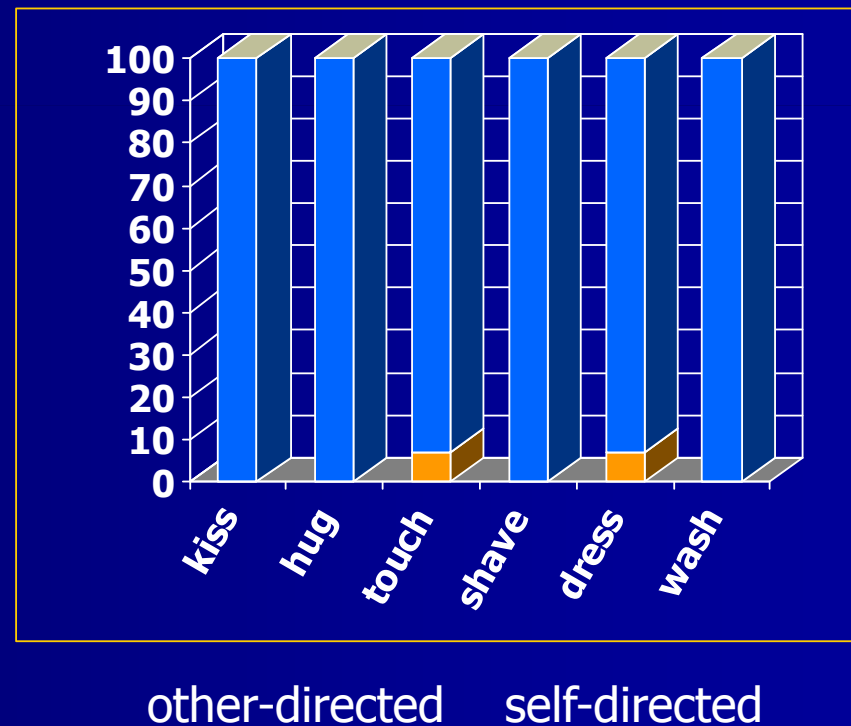
%	recip	refl
kiss	73	7
hug	87	0
touch	40	40
shave	7	80
dress	33	60
wash	13	67



# Results

Adults (N=13) perform grammatically in line with reciprocal *einander*.

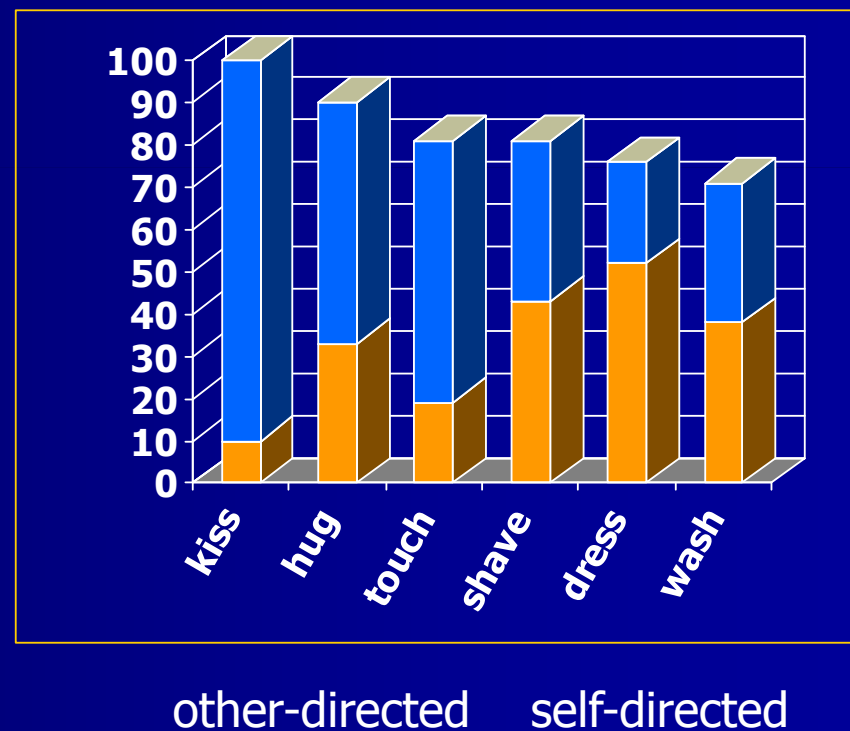
%	recip	refl
kiss	100	0
hug	100	0
touch	93	7
shave	100	0
dress	93	7
wash	100	0



# Results

2;5-3;6 children (N=21) display a semantic bias with *sich*.

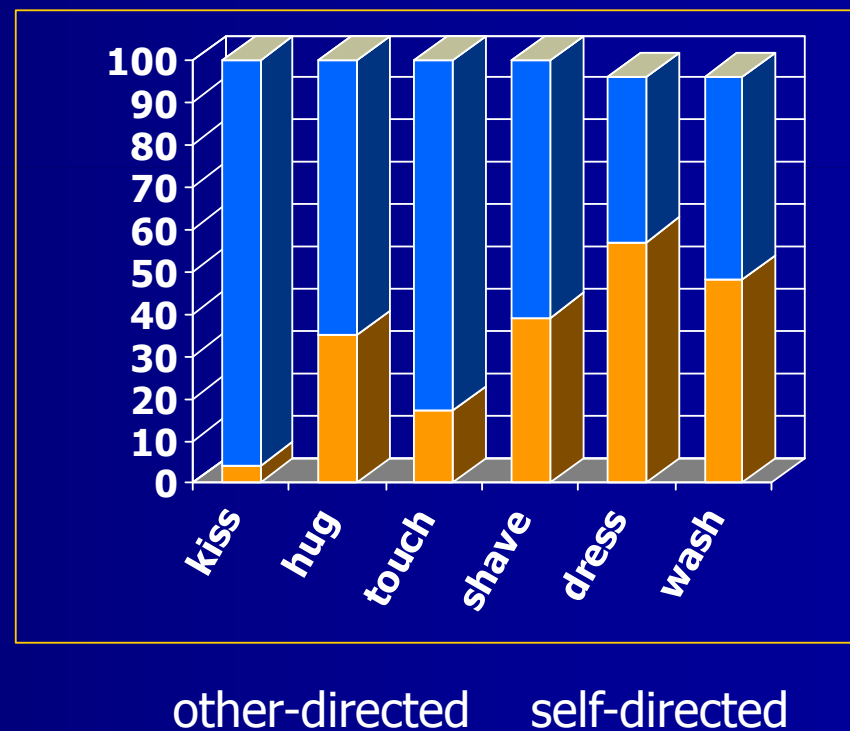
%	recip	refl
kiss	90	10
hug	57	33
touch	62	19
shave	38	43
dress	24	52
wash	33	38



# Results

4;1-4;6 children (N=21) display a semantic bias with *sich*.

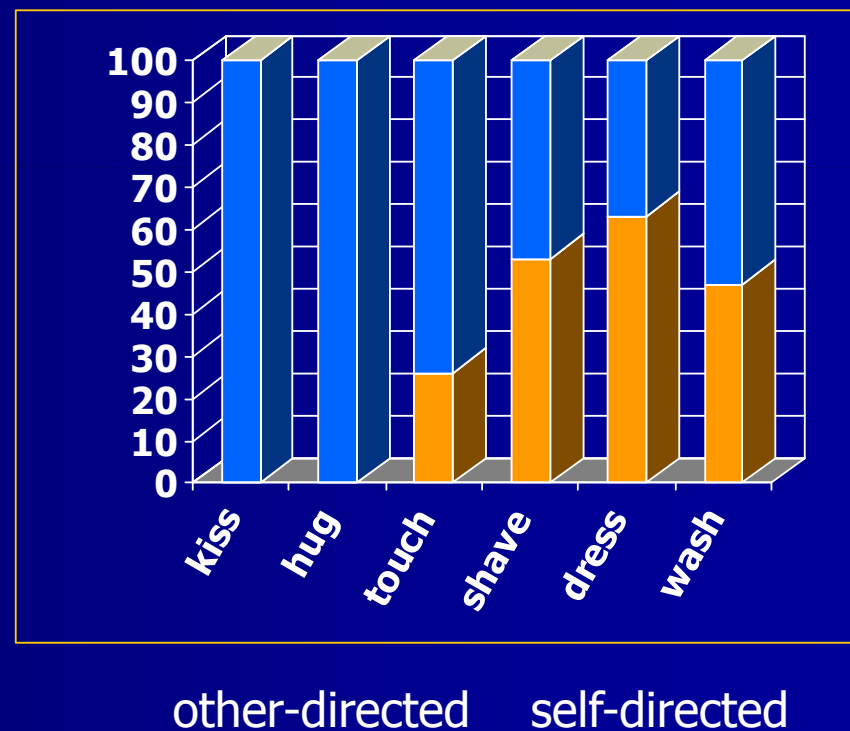
%	recip	refl
kiss	96	4
hug	65	35
touch	83	17
shave	61	39
dress	39	57
wash	48	48



# Results

5;1-6;0 children (N=21) display a semantic bias with *sich*.

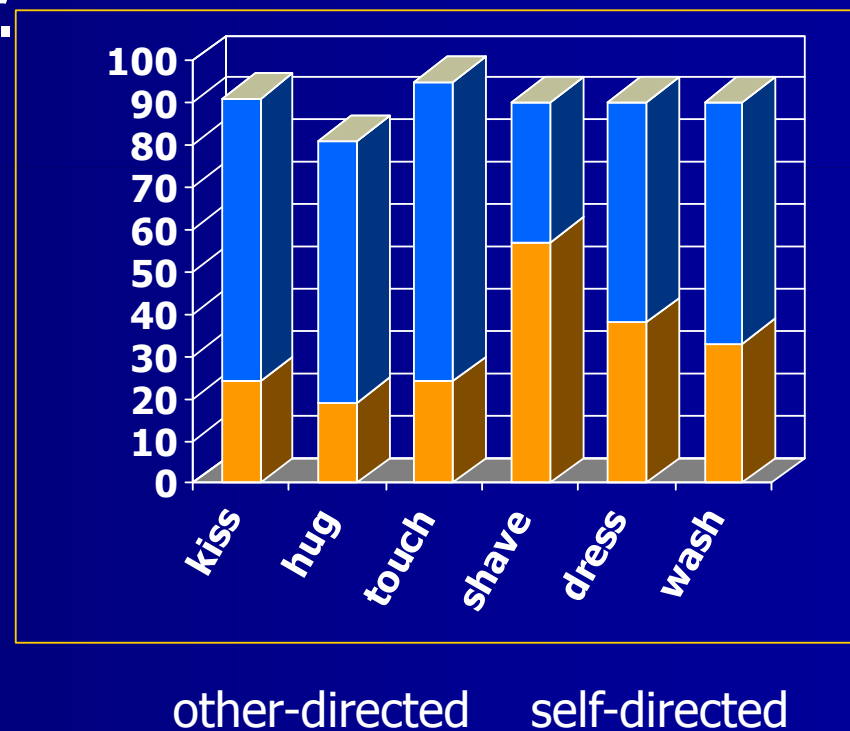
%	recip	refl
kiss	100	0
hug	100	0
touch	74	26
shave	47	35
dress	37	63
wash	53	47



# Results

2;5-3;6 children (N=21) display a semantic bias with *einander*.

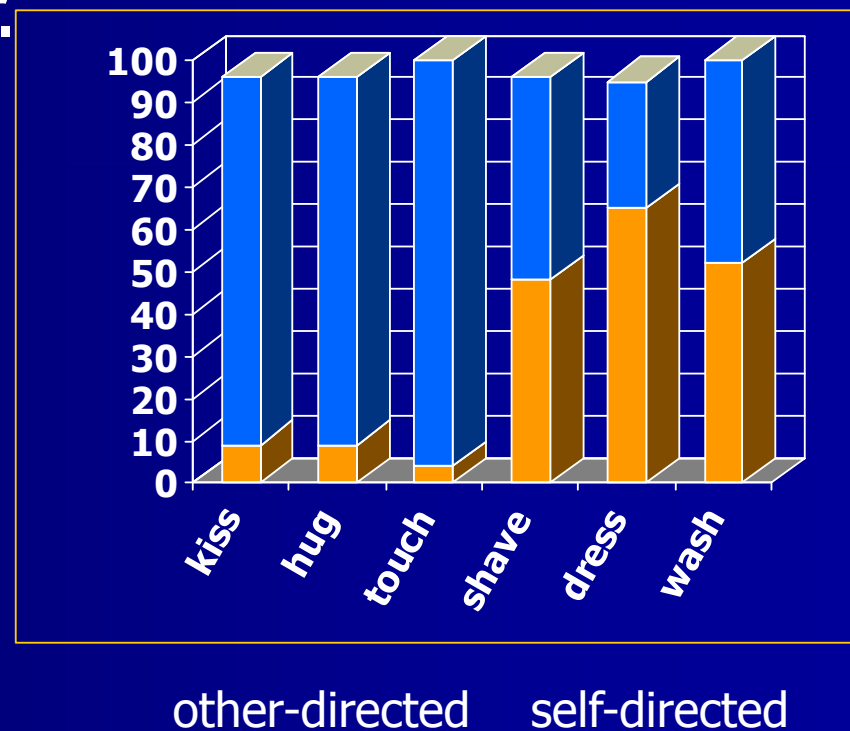
%	recip	refl
kiss	67	24
hug	62	19
touch	71	24
shave	33	57
dress	52	38
wash	57	33



# Results

4;1-4;6 children (N=21) display a semantic bias with *einander*.

%	recip	refl
kiss	87	9
hug	87	9
touch	96	4
shave	48	48
dress	30	65
wash	48	52

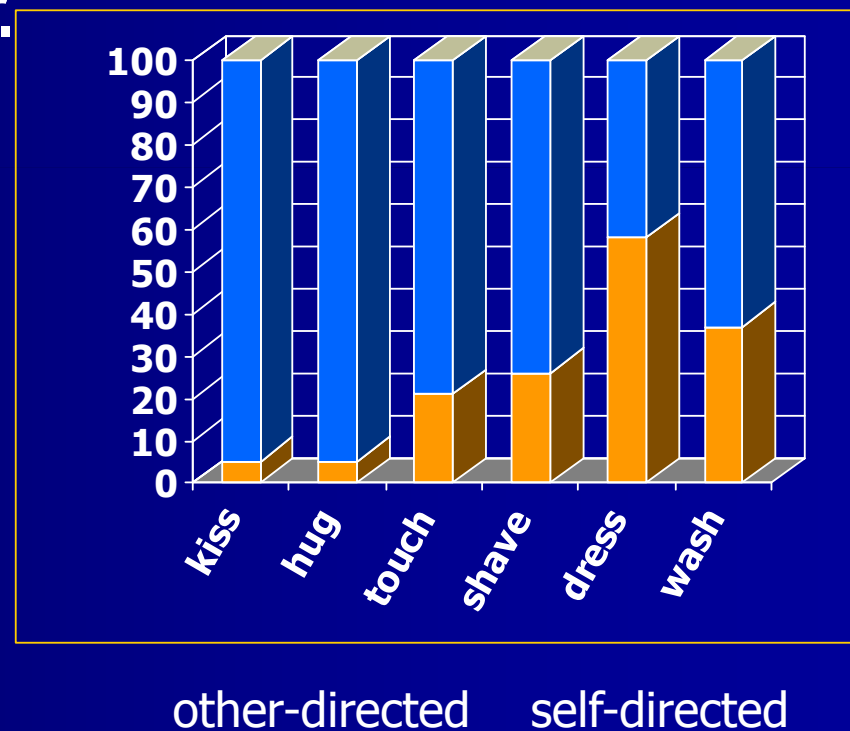




# Results

5;1-6;0 children (N=21) display a semantic bias with *einander*.

%	recip	refl
kiss	95	5
hug	95	5
touch	79	21
shave	74	26
dress	42	58
wash	63	37



# The second (Pilot) Study

- Comprehension of *sich* and *sie/ihn* in sentences with two types of predicates
  - frequently symmetrical and other-directed  
*kiss / hug / touch*
  - typically self-directed  
*shave / wash / comb*

# Study design

„Zeig mir, wo er sich kämmt“.

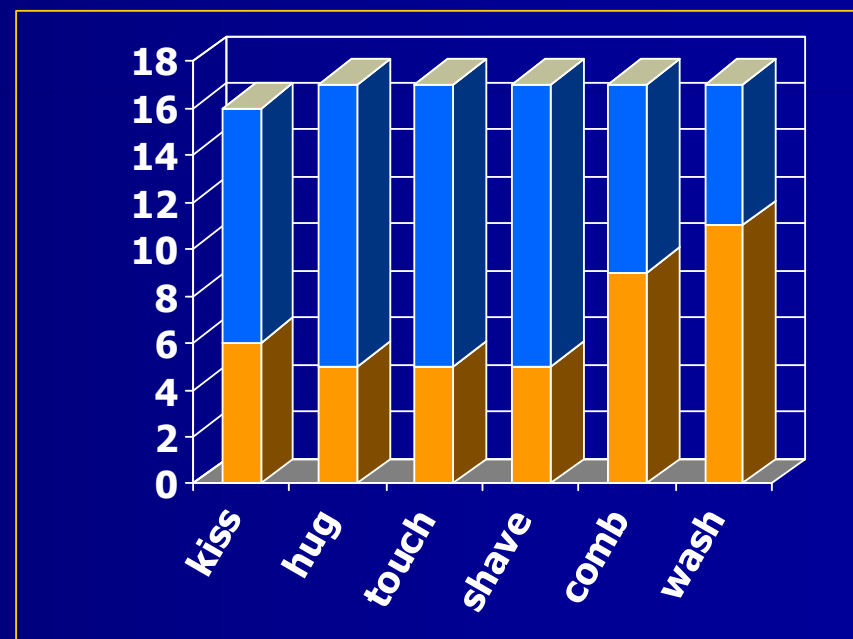
„Zeig mir, wo er ihn kämmt“.



# Results

3;0-4;10 (N=17) interpreted sentences with symmetric predicates and *sich* as referring to transitive events.

%	trans	refl
kiss	10	6
hug	12	5
touch	12	5
shave	12	5
comb	8	9
wash	6	11

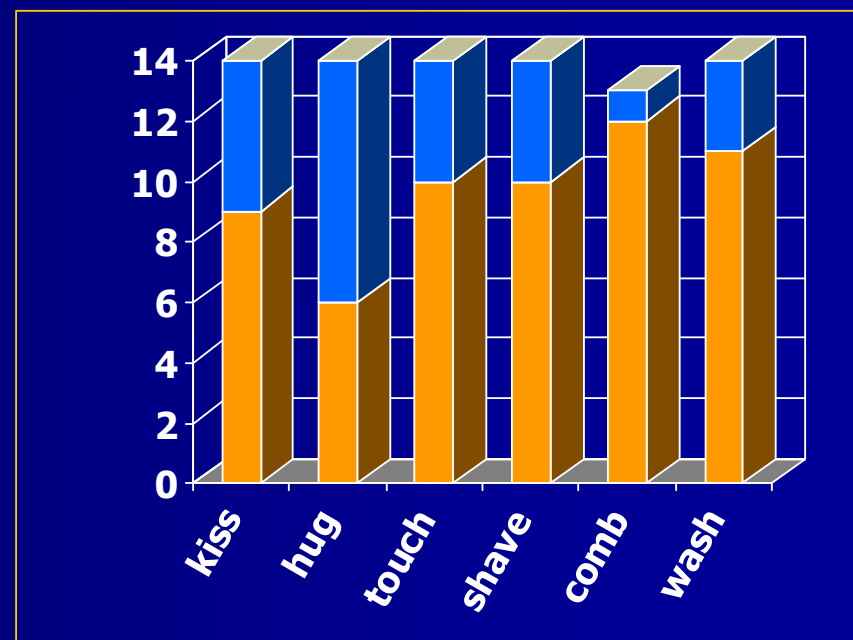


other-directed    self-directed

# Results

5;0-8;05 (N=14) still exhibit this effect but interpret sentences with *sich* as reflexive in a majority of cases.

%	trans	refl
kiss	5	9
hug	8	6
touch	4	10
shave	4	10
comb	1	12
wash	3	11

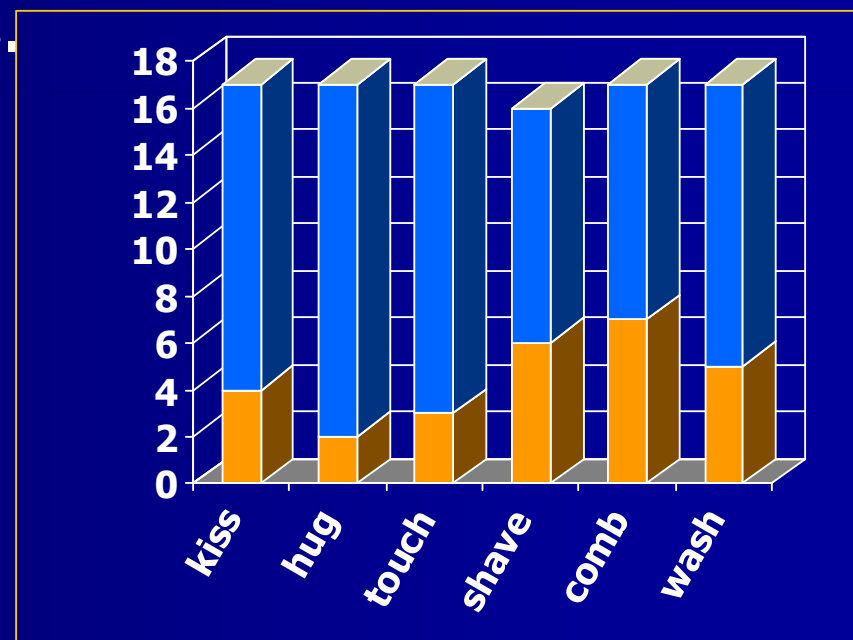


other-directed    self-directed

# Results

3;0-4;10, (N=17) highest scores for reflexive interpretations of *sie/ihn* with typically self-directed predicates.

%	trans	refl
kiss	13	4
hug	15	2
touch	14	3
shave	10	6
comb	10	7
wash	12	5

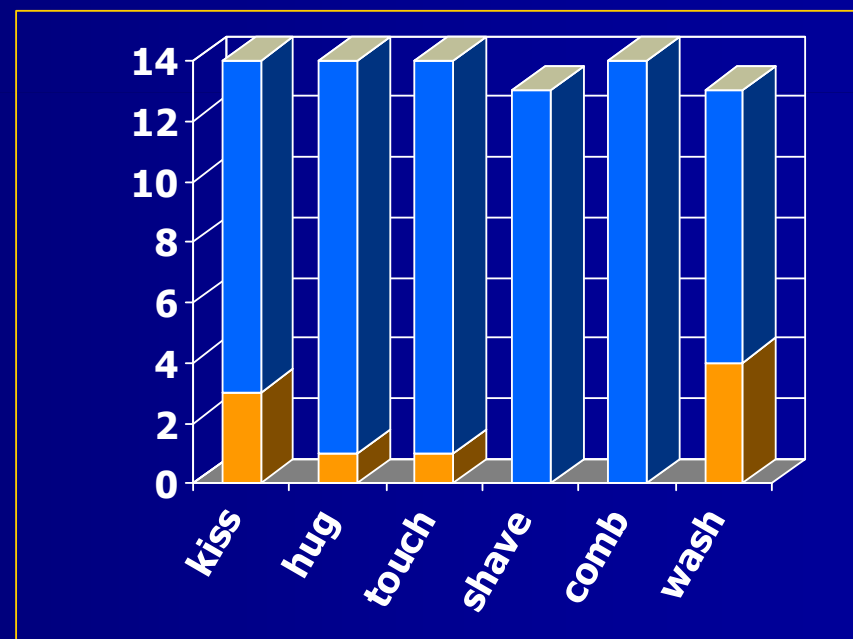


other-directed    self-directed

# Results

5;0-8;05 (N=14) interpret *sie/ihn* as referring to transitive events.

%	trans	refl
kiss	11	3
hug	13	1
touch	13	1
shave	13	0
comb	14	0
wash	9	4



other-directed    self-directed

# Summary

- Reciprocals as grammatical means of expressing symmetry are not fully understood by German children as old as 5;0 (and ignored by younger).
- Reflexives seem to be not fully understood by young and older German children in typically other-directed event expressions.
- Object pronouns seem to be not fully understood by young German children in typically self-directed event expressions.



# Conclusion

- Event probabilities can override the contribution of grammatical markers like reciprocals, reflexives and object pronouns.
  - Interaction between expression and event type before adult performance.
  - Chien & Wexler: *wash, touch, point to*
- The grammatical nature of grammatical markers emerges at different paces in child language.
  - Object pronouns *ihn / sie* are understood early (<5;0).
  - *Sich* is understood late (>5;0).
  - Reciprocal *einander* is understood late (>5;0).

# Ambiguous *sich* and DPBE

*Sich* appears in relations involving low participant distinguishability; agents acting on themselves.

- Er rasiert sich.
- Sie rasieren sich (selbst).

*Sich* also appears in relations involving distinguished participants in the event.

- Sie rasieren sich (gegenseitig).

Other languages with no DPBE also have a recip/refl category: Italian, French, Spanish.