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22nd ISSBD Biennal Meeting, July 8-12, 2012, Edmonton, Canada

"Follow my lead": What follows after one child's initiative in preschooler triads in a cooperative task?

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Introduction

Peer interactions play an important role in children's everyday life in institutional daycare. Sustaining social interactions requires skills as attending to the interaction partner(s), mastering turn-taking and prosocial behavior (Fabes, Martin & Hanish, 2011). If cooperation is needed to master a task, these skills become even more important.

Peer triads represent a complex setting of interactional possibilities of all three children (Ishikawa & Hay, 2006). Initiatives constitute starting points to analyze how social interaction is negotiated in a cooperative task. By suggesting how to proceed one child offers opportunities for social practices. The other children's reactions to the initiative are indicative for the involvement and social structure.

We therefore ask:

- (1) To what extent and how are initiatives responded to by the other group members?
- (2) Are there differences between boy and girl groups?
- (3) What behavioral interaction sequence follows each initiative?

Methods

Preschooler triads (N=20) of either girls or boys at the age of 62 months (SD=6.2 months; range = 48-71 months) were videotaped during the task of cooperatively replicating a tangram figure.

Identification of initiatives

Coding of behavioral responses

3. Analyses of sequences

All verbal and nonverbal initiatives were identified. Behavioral responses of the other children within a 5 second interval following the initiative were coded as either support or rejection. The absence of any response by the other children was coded as no reaction. Behavioral sequences resulted when the initiating child acted again.



nonverbal initiatives

Results

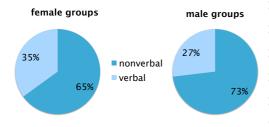


Figure 1 Proportion of verbal and nonverbal initiatives in female and male groups

A total number of 179 initiatives was identified. There were more nonverbal initiatives than verbal in both boy and girl groups (figure 1). In the majority of cases group members did not react to one child's initiative (figure 2). Girls and boys did not differ in the percentage of reaction types $[X^2\ (2)=1.669,\ n.s.]$, but there were differences between reaction types to verbal and nonverbal initiatives $[X^2\ (2)=7.539,\ p=.023]$.

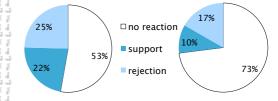
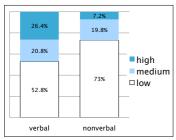


Figure 2
Proportion of reaction codes after verbal and nonverbal initiatives

verbal initiatives

Involvement (Figure 3):

As a measure for children's degree of interaction three levels of involvement were differentiated. There was no difference between boy and girl groups, but involvement levels differed significantly after verbal and nonverbal initiatives [X^2 (2)=13.067, p = .001].



Percentage of high, medium and low involvement of the

As a measure for children's degree of Table 1 Crosstabulation of peer and initiating child reaction

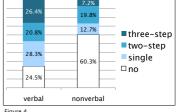
	reaction of initiating child					
	n	reaction	repeating continuing		Σ	
peer	no reaction	(89)	(22)	(9)	120	
reaction	support	(23)	10		34	
	rejection	/13	12	(0)	25	
	Σ	125	44		179	

Approximately	Peer support
one half of all	seldom lead to
initiatives were	new initiatives.
neither	More often the
followed by a	initiating child
peer reaction	showed no
nor any	reaction, thus
reaction of the	awaiting peer
initiating child.	involvement.

If there was not The initiating child did reaction of not suggest any new peers, the initiating initiative after rejection of the first initiative. child more often The child either did repeated continued the first not show any further rather reaction or repeated / initiative continued his or her than suggesting a first initiative.

Behavioral sequences (Figure 4):

The analysis focuses on the number of sequential steps that followed the initiative and how many peers contributed to the interaction. Significantly different behavioral sequences followed after verbal and nonverbal initiatives [χ^2 (3)=25.655, p=.000], but there was no difference between boy and girl groups [χ^2 (3)=2.476, n.s.].



rigure 4 Percentage of different behavioral sequence types

Discussion

Verbal and nonverbal initiatives to solve a cooperation task were analyzed in preschooler triads. Children generally showed little interaction after one child's initiative and 'no reaction' dominated as response pattern in both boys and girls groups. However, the modus of the initiative was crucial: Peers reacted more often to verbal initiatives and more interaction between children resulted. Nonverbal initiatives seemed to be less identifiable as interaction prompts for children at this age. It is not known whether this characterizes a certain developmental stage in related socio-cognitive skills or whether these results reflect children's preference for verbal over nonverbal communication in an interactive problem-solving task with peers.