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Cognitive Issues about Dealing

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Certain features of preschoolers' responses to questions such as “Is there a fair share?”, when they had just apportioned a number of discrete items using a dealing strategy, seemed to me to require further investigation. After all, dealing is sufficient in itself to establish fair shares, and counting is not required. I was particularly interested in the question of whether the children in the study reported in Chapter 2 were aware that dealing was sufficient to ensure equality of shares and that counting after sharing is simply a checking procedure, or whether they indeed felt that counting, or some other check, was essential in determining a fair share.

The children involved in the earlier study, had moved on to school, and as a result of this many of them were not able to be re-interviewed for their views on what they had done the previous year. Furthermore, I was not convinced that these same children would supply us with answers substantially different to what they said when first interviewed. I decided therefore to show edited video-taped highlights of their actions to another, older, group of children. I chose this second group from Grade 2 children of approximately eight years of age. I thought they would be sufficiently close in age and development to the original preschoolers to give us an indication of the preschoolers' possible thought processes and at the same time old enough to access their own thoughts and express them fluently and coherently.

I asked the older children to make inferences about the actions and thought processes of slightly younger children, then in turn I made inferences about the thought processes of both groups from the video record of the younger children and the verbal utterances, gestures and bodily cues from the video record of the older children. Inferences we have in mind are what one might call reasonable inferences that are checkable by other people and that lead us to models of cognitive activity.

Inferences made from the interviews with the Grade 2 children relate to the predominance of action-based schema over reflective activity, and to
the general lack of awareness of the sufficiency of dealing to ensure fair shares. We compiled edited highlights of video-tapes of preschoolers involved in sharing activities. The edited tape consisted of three children - one boy (5 years 1 month) and two girls (5 years 1 month, and 5 years 2 months) - performing sharing tasks with 12 crackers. Initially each child was presented with two dolls and asked to share all the crackers evenly between the two dolls. Then a third doll, Joey, joined the other two, just before they were supposed to eat the crackers, and the child was asked to share all the crackers evenly between the three dolls. The strategies used by the three children varied considerably. These strategies and procedures are as follows:

**Boy:** He gave one cracker to each doll and stopped. The interviewer indicated that all the crackers should be shared. He then continued to give out one to each (without changing the order) until all the crackers were shared in a stack in front of each doll. He counted the number of crackers, using a knife as a pointer, and correctly named six in each stack. When the third doll, Joey, arrived he picked up three crackers at a time from each pile and stacked them in front of Joey. He then picked up two crackers from Joey's stack and placed one on each of the other dolls' stacks. He correctly counted the number of crackers in Joey's stack. He moved to another stack and continued counting on from four until he reached six. He then started again with Joey's stack and counted all stacks correctly to conclude that each doll had four crackers.

**First girl:** She asked if she had to break the crackers. She then gave one to each doll and asked if she had to give out all the crackers. She did so, one cracker at a time to each doll in turn, ending with a stack in front of each doll. She checked that each doll had "the same" by comparing heights of the stacks. (She commented at this time: "What about if we move them and see if they've got the right amount?") When Joey arrived she took one cracker from a stack and put it in front of Joey. She began to take another cracker from the same stack but instead took one from the other stack. She then took one from each stack and placed them on Joey's stack. At this point (even though the dolls had an even share) she touched the stacks and moved one more cracker onto Joey's stack. She continued to touch the stacks and move crackers until the interviewer suggested counting the number in each stack. She counted each stack by reforming it into a new one, and counted on from the first to the second stack before correcting herself. She correctly counted four in two of the stacks and then said that each of the three dolls had four crackers.

**Second girl:** She gave to the two dolls, in turn, two crackers, two crackers, one cracker, and one cracker. She did not place them in a stack. She did not overtly count the crackers and insisted they both had "the