

## DOCUMENT RESUME

ED 110 159

PS 007 912

AUTHOR DeVries, Rheta; Kamii, Constance.  
TITLE Why Group Games? A Piagetian Perspective.  
INSTITUTION ERIC Clearinghouse on Early Childhood Education,  
Urbana, Ill.  
SPONS AGENCY National Inst. of Education (DHEW), Washington,  
D.C.  
PUB DATE Aug. 75  
NOTE 31p.  
AVAILABLE FROM Publications Office, I.C.B.D., College of Education,  
University of Illinois, 805 W. Pennsylvania Ave.,  
Urbana, Illinois 61801 (Catalog No. 132, \$1.25)  
EDRS PRICE MF-\$0.76 HC-\$1.95 PLUS POSTAGE  
DESCRIPTORS \*Childrens Games; Cognitive Development; \*Educational  
Theories; \*Egocentrism; Emotional Development; Group  
Activities; Learning Motivation; Logical Thinking;  
\*Mental Development; Moral Development; \*Preschool  
Education; Social Development  
IDENTIFIERS \*Piaget (Jean)

## ABSTRACT

A Piagetian perspective is used to build a rationale to explain why group games are good for young children. Three major areas in which group games might foster children's development are discussed. In the socioemotional area, the rationale is that moral development, personality development, and autonomy are enhanced by the social context of peer cooperation which group games necessitate. In the cognitive area, group games are said to contribute to the development of logical thinking by forcing children to come out of their egocentricity and to coordinate different points of view. In the area of motivation, the rationale is that children spontaneously engage in group games so that such games must be naturally motivated and can therefore be powerful classroom tools. Several competitive and noncompetitive games are discussed specifically and five criteria for good games are suggested. (JMB)

\*\*\*\*\*  
\* Documents acquired by ERIC include many informal unpublished \*  
\* materials not available from other sources. ERIC makes every effort \*  
\* to obtain the best copy available. nevertheless, items of marginal \*  
\* reproducibility are often encountered and this affects the quality \*  
\* of the microfiche and hardcopy reproductions ERIC makes available \*  
\* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
\* responsible for the quality of the original document. Reproductions \*  
\* supplied by EDRS are the best that can be made from the original. \*  
\*\*\*\*\*

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

WHY GROUP GAMES? A PIAGETIAN PERSPECTIVE

by

Rheta DeVries and Constance Kamii

Available from:

Publications Office/IREC  
College of Education/University of Illinois  
805 West Pennsylvania Avenue  
Urbana, Illinois 61801

Price: \$1.25      Catalog # 132

August 1975

The material in this publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Prior to publication, the manuscript was submitted to the Area Committee for Early Childhood Education at the University of Illinois for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of either the Area Committee or the National Institute of Education.

## WHY GROUP GAMES? A PIAGETIAN PERSPECTIVE

Despite the fact that group games are widely played by young children in and out of school settings, early childhood textbooks generally recommend against their use. Kellogg (1949) stated emphatically some years ago that group games "are seldom used in a good nursery school (p. 156)." More recently, Keeper, Dales, Skipper, and Witherspoon (1968) commented that "Nursery school children are usually not ready for organized games (p. 321)." Others said that games "are too complicated (Hildebrand, 1971, p. 253)" or that, among 4-year-olds, "there is little interest in organized group games outside simple singing games (Willis, 1958, p. 206)."

When group games are advocated in early childhood texts, the authors generally limit their justification to reasons of mere energy release and physical or social development, or view such games as justifiable only in the context of musical objectives. Read (1971) is an exception. She said:

Some teaching may be done through games that encourage the use of the senses, the imagination, and problem-solving capacities (p. 28)...Games create a "climate for learning" (p. 175).

From a Piagetian point of view, these reasons seem too vague and too general. Furthermore, even Read placed much less emphasis on group games than we feel is appropriate: she did not list group games as an activity in her otherwise detailed schedule suggestions, implying that she does not view such games as part of the regular classroom routine. Also, when we look at the kind of games she recommends, we find that her view of problem solving is narrow and limited to school-type problems.

For example, her idea of a good problem-solving game is reflected in the following excerpt:

The teacher may introduce games that depend on paying attention and remembering, such as a game in which the child first looks carefully at some objects placed in front of him, then closes his eyes while one of these is removed, and when he looks again, tries to remember the name of the missing object (Read, 1971, p. 204).

We feel that this kind of game offers very limited possibilities for young children to think and reason.

On the basis of Piaget's work and our own classroom experience we conclude that there are stronger reasons for using group games than those outlined above. We certainly disagree with the view that children are uninterested in games. We believe in the use of group games for three reasons: (1) They foster socioemotional development in a unique way; (2) They contribute a great deal to cognitive development; and (3) They are a natural activity that most children engage in spontaneously.

#### Socioemotional Rationale for Group Games

Piaget (1932) devoted the first quarter of his book on moral judgment to what children think about rules in group games. As one might guess from this intriguing fact, Piaget's view of the value of games is quite different from the usual view. His study of boys' marble playing led him to conclude that such games are extremely important activities for the child's social, moral, and personality development. In fact, he felt so strongly about this that he said, "How much more useful is a well-regulated game than a lesson in morals (Piaget, 1932, p. 307)."

What did Piaget mean? To answer this question, we must first discuss

the fact that all young children until about five or six years have a basic characteristic--egocentricity. Egocentricity is the inability to think about things from more than one point of view at a time. At a very early age (before about age two), babies and small children are completely unable to even imagine the existence of another point of view. Later, they come to know that others have feelings and thoughts, but assume these to be the same as their own. For example, when 3-year-olds play "Hide and Seek," their idea of "hiding" is to put their hands over their eyes! Since they cannot see other people when they cover their own eyes, 3-year-olds assume that other people cannot see them either. Another example of egocentricity may be found in an experiment of Piaget's (1948) with a model of three mountains. In this experiment, he asked young children to select the picture that showed what a doll saw from the opposite side of the mountains. Surprisingly, young children picked the picture showing the scene as they themselves saw it! This egocentrism<sup>2</sup> reflects an inability to coordinate different points of view. (Even adults never overcome their egocentrism completely.)

Morality is not obedience to absolute rules or even abstract principles. Rather, it is a feeling of moral necessity about our relationships with other people. In Piaget's (1932) words, "Apart<sup>7</sup> from our relations to other people, there can be no moral necessity (p. 196)." Telling the truth, for example, is truly moral behavior only when it comes out of a conviction that maintaining relationships with

others necessitates treating them as we would like to be treated.

It is not possible for the egocentric child, who cannot coordinate two points of view to treat others as he would like to be treated. He knows very well when he is treated well or badly. However, he cannot put himself in another person's place and at the same time think about how he should treat the other person. The egocentric child can thus understand an adult's coercion better than he can understand an explanation of adult moral reasoning. For example, it is relatively easy for him to understand that if he tells a lie, he will be punished. It is not so easy, on the other hand, for him to understand that if he tells a lie, the adult will not trust him in the future. Coercion is, therefore, an easy and fast technique of getting a child to follow moral rules. In the long run, however, coercion can lead only to blind conformity or calculation of risks, not to moral development.

Teaching honesty by appealing to mutual trust is much harder and less efficient in the short run than coercion. However, when the emphasis is placed on mutual trust, the child has the possibility of constructing his own rule by thinking about the other person's reaction to his lie. In Piaget's terminology, the child is encouraged to decenter. ("Decenter" means to shift from one perspective to another.) Children (and adults, too) overcome their egocentricity by decentering and coordinating different points of view.<sup>3</sup>

Piaget thus argues that the whole problem of moral development is how to take the child out of his egocentricity and lead him to reciprocal

relations of cooperation with others. He contends that this is best accomplished in the context of situations where and child can co-operate autonomously with adults. Here, "co-operation" has a meaning which is slightly different from the usual meaning. For Piaget, co-operation is the opposite of coercion, coercion being characterized essentially by unequal power. In a coercive relationship, the more powerful person demands obedience from the the less powerful one. In a co-operative relationship, on the other hand, the parties involved are psychologically equal in power, since each respects the other's autonomy. The two individuals exchange views as equals and arrive at decisions agreeable to both.

The reader may be wondering in what way co-operation works better than coercion in taking the child out of his egocentricity. The fact is that coercion leaves little room for the child's choice and thus prevents the development of autonomy. When the child is forced to follow a certain rule, the force itself and the possibility of punishment are his reasons for "moral" behavior. In this coercive situation, there is no motivation for the child to try to understand the adult's point of view. In a co-operative situation, on the other hand, the child has a choice about following a certain rule. Instead of telling a lie to cover up a misdeed, for example, he can confess and/or offer restitution and/or promise never to do it again. While it is not always possible to give children a choice, it is very important to offer even a small element of choice whenever possible.<sup>4</sup> When given no choice at all, the



child can only follow the will of others.

Let us now consider the child's possibilities for moral development in group games. Such games create a mini-society in which it is easier than in daily life to understand the necessity of making and following rules. In games, children have a chance to practice co-operative legislation and law enforcement for the sole purpose of having fun in a way that is fair to everyone. Fairness (to insure fun) in a game is easier to understand than fairness to others as stated in the golden rule. Games provide situations in which it makes better sense to the child to practice the golden rule than in daily situations which do not reveal any obvious benefit to the child. In everyday living, most of the rules to which the child has to accommodate come from adults in a fully-formed, ready-made fashion--ranging from eating vegetables to having table manners, using the toilet, taking baths, not grabbing toys, not breaking things, not dragging mud into the house, etc., etc., etc. The child does not participate in the construction of these rules and does not understand the reasons for them. Therefore, he can only experience them as arbitrary demands which he follows by submitting his will to adults. Because games are removed from the ordinary life context of social and moral rules, and because adult authority is temporarily suspended, players can create their own set of obligations that make more sense to them than those imposed by adults.

In making and enforcing rules, players are psychologically equal in power, and each participates autonomously. The child submits to

rules because he wants to, and not because powerful adults want him to obey. If he wants to leave the game, the child is completely free to leave this society of children. In games, adult authority decreases, and children's power increases. Even adults must conform to the rules of the game. When power is thus equalized, coercion ceases and autonomous co-operation can begin.

In "Tag," for example, if the teacher asks the children to decide what the safety zones<sup>5</sup> are going to be, the players have to confront the ideas of others. Some children may want no safety areas, while others may want three or six of them. In such an impasse, the children can all see that the game cannot begin until an agreement is reached.

During a game, opportunities for further discussion often arise when rules need to be modified. For example, if no one moves off the safety zone, the game comes to a complete halt. Since it is no fun under such circumstances, the teacher has an ideal opportunity to encourage children to figure out new rules by which the game can get started again. In games, children can thus see the need for making, modifying and abiding by rules.

Games have the further advantage of encouraging law enforcement among equals. In "Tag," for example, we once observed a 4-year-old "It" become distracted by the presence of a slide and interrupt his chase with a detour down the slide. We saw another "It" get sidetracked by the idea of "safety" which made him think to hide behind a desk (as if he confused "Tag" with "Hide and Seek"). When these disruptions occur

and the game slows down, other players impatiently say, "Come on! You're supposed to chase us! Try to catch me!" This social feedback from other children is much more effective in promoting decentering than being reminded by the adult.

Games also provide opportunities for children to learn sympathy (another instance of decentering). Sympathy, or empathy, is very important because morality without empathy is not morality at all. While playing an adapted version of "In the Tail on the Donkey," for example, we observed some 4-year-olds encouraging the groping, blind-folded child to "Go to the wall! Go to the wall!" Of course, this is one more example of the egocentricity of young children who do not realize that their "help" is of no help to the blind-folded player who cannot see the wall. Nevertheless, the other players were trying to help, and in moral development, what counts is the person's intention.

Now, let us consider once more Piaget's statement, "How much more useful is a well-regulated game than a lesson in morals." What he meant was that live situations are emotionally meaningful to children and, therefore, more effective than lessons in morals in getting children to decenter and construct their moral rules. Piaget is not, of course, saying that games are absolutely necessary for moral development. Many situations in daily life also provide emotionally meaningful situations in which children are motivated to decenter in order to maintain social relationships. Neither is Piaget saying that by playing games children

will automatically develop morally. (What he is suggesting is that games create ideal situations in which children have special incentive to decenter and become conscious of the need to co-operate with others.

But why are games so uniquely desirable? Can't children be just as well socialized through co-operating in other types of play like playing house? It is true that the child participates in pretend play, too, only when he wants to. But there is a difference: Games have conventional rules. In pretend play, the child imposes his own ideas on his play, with little regulation beyond the rule that it is all supposed to be make-believe. In games, he must accept an external system and regulate his behavior by it.

#### Relationship between Moral and Socioemotional Development

In considering the relationship between moral development and socioemotional development we turn again to an idea which is central to Piaget's theory: autonomy. For Piaget, autonomy is not the same thing as complete freedom to do as one likes. When a child snatches a toy, for example, the moral question is not one of freedom, but of autonomy. In other words, the problem here is how to get children to coordinate their desires in a mutually satisfactory way. Respect for the other's autonomy necessitates each child's seeing the situation from the other child's point of view. (In coercion and conditioning, in contrast, the child's will is subjugated, and there is not room for autonomous decisions made by mutual agreement.)

Interestingly, while young children are egocentric, they are unaware of themselves as distinct individuals. It is, by confronting other points of view that the child becomes aware that he has a point of view which can be distinguished from others. In other words, autonomy, or the development of the self, is the opposite of egocentricity. Piaget (1932) discussed the development of autonomy in this way:

In order to discover oneself as a particular individual, what is needed is a continuous comparison, the outcome of opposition, of discussion, and mutual adjustment. It is only by knowing our individual nature with its limitations as well as its resources that we grow capable of coming out of ourselves and collaborating with other individual natures. Consciousness of self is therefore both a product and a condition of co-operation (p. 393).

Piaget thus emphasized that in order to construct a self, the child needs a social context, and the co-operation among equals is especially important. The more he co-operates in egalitarian relationships, the more he becomes a self conscious of itself, and the better he can co-operate with others. In fact, he felt so strongly about the importance of personality development that he said, "Co-operation (is) the source of personality. (p. 96)."

Games continuously give the children occasion for opposition, discussion, and mutual adjustment--in short, co-operation among equals. They can thus be used in the classroom as a vehicle for personality development as well as for the cognitive development.

### Relationship between Socioemotional and Cognitive Rationales

We sometimes hear early childhood educators say, "Program X has a cognitive emphasis," or "Program Y stresses socioemotional objectives." Such statements reflect a very narrow conceptualization of both cognitive and socioemotional objectives. In a Piagetian curriculum, the two cannot be separated and must always go hand-in-hand. Piaget insists that cognitive development and socioemotional development are only two different aspects of the same development, as the two are inseparable in the psychological reality of the child. To illustrate what Piaget means, let us focus on the cognitive parallels of the socioemotional rationale discussed above.

We noted Piaget's emphasis on autonomous co-operation as the basic process by which the child develops his ego, accepts social rules, and constructs his morality. For Piaget, co-operation is not only socioemotional: it also involves intelligence, and cannot occur without cognitive activity. For example, individuals must exchange ideas in order to coordinate them and resolve conflicts. The child must know rules if he is to follow them. Also, in order to co-operate autonomously, the child must know his own likes and dislikes as well as his strengths and limitations and coordinate them with those of others. Moreover, volition involves free choice and is thus cognitive as well as emotional.

Intelligence is thus necessary for co-operation, but the converse is also true. In fact, Piaget felt so strongly about the necessity of

social interactions for the development of logic that he said, "Without interchange of thought and co-operation with others, the individual would never come to group his operations into a coherent (logical) whole (1947, p. 163)." We must be careful, however, not to interpret this statement to mean that logic comes from society by social transmission. To the contrary, Piaget believes that social interactions are necessary for two reasons: (1) They confront the child with his inconsistencies and the need to be consistent within himself, and (2) They force him to coordinate his point of view with different points of view. Let us briefly elaborate each one of these two points.

At ages two to three, what children say tends more to be expressions of feelings and desires than statements of beliefs about what is true or false. In fact, very young children do not feel any need even to be consistent in what they say from one moment to the next. Furthermore, they do not feel any particular need for consistency between external reality and what they say. Without meaning to deceive anyone, they distort reality to conform to their desires or simply to have the fun of new verbal combinations (Piaget, 1932, p. 164). In the presence of other people, however, the child begins to feel the need to be consistent in what he says, as they point out the contradictions among his statements. A social context and cooperation thus provide the conditions without which the child would not feel the moral obligation for internal consistency and truth.

With regard to the importance of coordinating different points of view for the development of logic, Piaget's theory is rather complicated. Basically, his argument is that cognitive operations literally grow out of co-operation. In coercive relationships, there is no motivation for the child to argue logically because the only things that count are power and force. In co-operative relationships, on the other hand, what counts is logical persuasiveness. The child is, therefore, motivated to decenter and coordinate the other person's logic with his own. The rest of the story can best be told by quoting Piaget (1947):

As far as intelligence is concerned, co-operation is thus an objectively conducted discussion (out of which arises internalized discussion, i.e. deliberation or reflection), collaboration in work, exchange of ideas, mutual adjustment (the origin of the need for verification and demonstration), etc. (pp. 162-3).

The more the child can decenter and coordinate his logic with that of others, the better he can co-operate socially with others. The better he can co-operate socially the more he will, in turn, be able to exchange ideas and develop his logic and knowledge. This is why we place major emphasis on social collaboration. In our classrooms we feel that a game is one of the best ways to promote this collaboration because feedback from equals is clear, immediate, and meaningful.

#### Cognitive Rationale for Group Games

In order to discuss more specifically how games contribute to the child's intellectual development, we need to review some basic ideas in Piaget's theory about intelligence and how it develops. Piaget says



that intelligence develops as the individual constructs a cognitive framework which he termed "logico-mathematical." This framework is the basic organization of knowledge by means of which the child gets further knowledge about reality. There can thus be no empirical knowledge outside this logico-mathematical framework. Even to recognize a glass as a glass, for example, the child has to assimilate the object to a classificatory scheme of "glass," distinguishing it from all other objects. Without this framework every bit of factual knowledge would be an isolated bit, unrelated to the rest of the child's knowledge. Every area of our knowledge (ranging from arbitrary social knowledge to science, history, and geography) exists within our logico-mathematical framework. Try to imagine the following bits of knowledge without a basic organization that embeds each in an organized whole and makes its meaning clear: Mother gets angry when glasses are broken, plants need water to grow, and cities grew around waterways.<sup>9</sup>

This logico-mathematical framework is thus all important for the construction and memory of knowledge. This framework can neither be observed nor taught directly, as it is the result of all the child's exploratory, thinking, and knowing activities. There is no set or sequence of specific activities the child has to go through in order to construct his logico-mathematical framework. Any activity that motivates him to use his intelligence actively will contribute to the development of this framework.

U In games, children are motivated to use their intelligence in particularly exciting ways. To illustrate the thinking that can be stimulated by a game, let us take "Musical Chairs" as an example. In this game, the good player decenters and coordinates many things all at once. He watches to see if the teacher is standing near the record player, looking toward it, or moving to lift the arm. While he watches the teacher and tries to predict the moment to begin racing, he thinks simultaneously about his position in relation to the closest chair. He walks close to the chairs, slows down in front of the last one before a gap between chairs, and hurries past the gap to the next chair. At the same time, he also watches the children in front and in back of him to see which chairs they are likely to aim for. The good player is always ready to move toward the chair he is most likely to succeed in getting.

Such decentering and coordination are beyond the 4-year-olds we have observed. They are generally unable to engage in any of these thinking activities, let alone coordinate them all at once. Usually, they just enjoy dancing to the music as they march around the chairs, with large distances between the chairs and themselves, and they do not even look at the teacher to see when she might stop the music. When the music does stop, they pause momentarily, as if caught by surprise, and then remember to run for a chair. Furthermore, when the game is played using the same number of chairs as children, we note that

4-year-olds play in exactly the same way as when there is one more child than chairs. Four-year-olds race just as fast (or slowly) in the first situation as in the second one partly because they do not understand the idea of competition, and partly because their notion of number is not yet developed. For them, the game is more a ritual than a race. Only when the number of chairs is reduced to two or three do 4-year-olds race competitively against the other players.

For us, there are thus two cognitive reasons for playing "Musical Chairs" in the classroom-- a general reason and a specific one. The general reason is that "Musical Chairs" provides a context in which the child is motivated to decenter and coordinate different points of view. As stated earlier, this decentering and coordination contribute to the child's development of a logico-mathematical framework. Our second reason is that "Musical Chairs" is particularly well suited for the teaching of elementary number concepts. When children are asked to arrange "just enough chairs" for this game, they have a personal reason for wanting to get the right number of chairs. This is a far more meaningful reason for learning about numbers than doing exercises with a kit or a workbook supplied by the teacher.

Other games contribute uniquely to cognitive development in different ways. To discuss the cognitive value of other games, let us briefly present a classification of general types of games. We see two major types: non-competitive and competitive games. Putting aside the issue

of whether competition should be tolerated, encouraged, or discouraged,<sup>10</sup> let us consider what types of games fall into each category.

Non-competitive games: Imitation, ritual and collaborative

When an imitation game like "Follow the Leader" is played without penalty or reward, it falls into the non-competitive category. The value of such imitation games is that they promote the development of the body image--the structuring of space at the representational level. In trying to copy a model's movements, the child has to think about how his body is put together spatially and try to make the movements of his body parts correspond to those of the model. His mental body image is thus strengthened.

Ritual games involve a specified sequence of actions which are usually accompanied by a song (or chant). Although it is possible to do a ritual by imitating the model, rituals go more smoothly when the child has constructed the sequence and knows it by heart. The four types of rituals we can think of are 1) singing and acting ("Mulberry Bush," "Farmer in the Dell," nursery rhymes, and finger plays), 2) singing and clapping ("Hot Cross Buns," "Mary Mack," and "Pease Porridge Hot"), 3) singing and jumping (jump rope rhymes), and 4) dramatizations (of stories such as "Three Bears"). The value of rituals lies in externalizing ideas by acting them out, thereby clarifying them. For example, when children act out the ideas involved in the statement, "This is the way we wash our clothes," they are stimulated to think about what happens when they wash clothes. Ritual games are also rich in possibilities for language development.

Collaborative games such as "Keep the Ball in the Air," force the child to coordinate his actions with others to achieve a common objective (thus getting him out of his egocentrism) and also require spatio-temporal reasoning: each player tries to predict where and when the ball will come down, and where to place himself accordingly.

Competitive-games: Parallel-role games (racing and aiming and inventing) and complementary-role games (chasing-keeping away, hiding-finding, guessing, and imitating)

Parallel-role games are those in which the players do the same thing and compare their performance. Complementary-role games are those in which the players take different, complementary roles, and oppose one another in their goals and actions. Parallel games encourage children to make comparisons (who was "first," who got "more" marbles, and who came up with a new idea that no one else suggested before). These games thus contribute to the development of the logico-mathematical framework. Races are particularly good for children to learn the mental action of ordering things (who was first, second, third...last) which underlies arithmetic and measurement. In addition, specific races offer specific advantages. For example, a race with balls balanced in spoons challenges children to figure out just the right balance between running fast to finish fast and going more slowly in order not to drop the ball.

Aiming games involve physical knowledge of objects and the structuring of space. In a game of marbles, for example, the child has to modify the direction and strength of his push according to feedback

Competitive imitation games are just like non-competitive ones except that they involve some kind of penalty for failing to imitate the model well. Competitive imitation games often involve some kind of trap which tricks a player into doing the wrong thing. For example, in "I Say Stoop" (Bancroft, 1937), where players must follow the verbal command ("I say stoop" or "I say stand"), the leader often does the opposite of what he says. Therefore, competitive imitation games challenge children to be alert and ignore the misleading suggestion. The "It" who tries to fool the other players also engages in a lot of decentering because it is not easy to say one thing and do something else at a fast clip.

The above classification of games is neither exhaustive nor free from being debatable. However, we feel it is helpful to the teacher who wants to select a good variety of games in terms of their educational value. Before concluding this section, we would like to point out that although we are enthusiastic about games in general, there are some that we would not recommend. In order to provide some guidelines for selecting games, we explain below our criteria of good games.

#### Criteria of Good Games

A good game is one in which

- . all players participate actively,
- . the players understand the ideas involved,
- . the players actively think,
- . the players get clear feedback,

the activity is intrinsically interesting.

Active participation is important because it maximizes the child's learning opportunities. One can play "Musical Chairs," for example, with the same number of chairs as children, or without putting a child out of the game. Four-year-olds enjoy the game more when they are not forced into the passive role of being out for a long time.

One of the reasons young children do not enjoy the classical version of "Musical Chairs" is that they do not understand that somebody has to be the loser. Since they have little notion of number beyond about four, they cannot possibly understand that there is one more child than the number of chairs. The ideas involved in a game must make sense to the child in some way.

Some games involve only memory or a pure guess rather than reasoning. For example, Palmer (1968) describes a game called "Arranging Colored Balls" which involves simple recall. In this game, six colored balls are arranged in a row, and one child closes his eyes while another rearranges the balls. The object of the game is for the first child then to rearrange the balls back to their original order. Since such a game does not motivate the child to reason, we do not recommend its use.

"Arranging Colored Balls" has a second disadvantage: It does not provide clear feedback. Since the original arrangement is destroyed and there is no duplicate model, there is no way for the child to find out for himself whether his rearrangement is exactly like the first. Disagreement over the correctness of the rearrangement can only result in

00023

an impasse or submission to authority. In the case of an impasse where the child persists in believing his arrangement to be correct, he neither thinks nor learns. In the case of submission to authority where the child accepts correction, he learns that the right answer comes from somebody else's head. To the extent that it is possible, therefore, we recommend games where children can judge for themselves the results of their actions.

We find that games with developmental educational value are intrinsically interesting to children. In contrast, so-called educational games are often artificial gimmicks that sugarcoat learning that is distasteful to children. For example, with old-fashioned spelling bees, teachers use competition to motivate children to learn spelling. (Ironically, spelling bees usually give the most practice and the most fun to those who are already good spellers!) Our objection is that the motivation in such a situation remains in the competition rather than in spelling. With this method, teachers may promote competition, but not an intrinsic desire to learn how to spell. We advocate games which have their intrinsic appeal in the very reasoning we want to promote.<sup>11</sup>

#### Games as a Natural Human Activity

Piaget (1946) traced the roots of game playing back to the sensory-motor period and pointed out that these roots appear spontaneously in all babies without any teaching by the adult. (To be sure, the first spontaneous game such as crawling on all fours and saying "meow" are so



rudimentary that most adults would not recognize them as the beginning of "Charades.") Opie and Opie (1969) studied the street games of older children between six and twelve years of age, and also pointed out that children play games voluntarily for the sheer pleasure of playing them. Clearly, there is something about the human species that results in play, if for no other reason than that it is more fun to play than to sit around doing nothing. Since games are such an intrinsically enjoyable form of human activity, they can be a powerful tool in the classroom.

#### A Word of Caution

Although group games offer unique conditions for co-operation which promote socioemotional and cognitive development, we would like to conclude by pointing out that the teacher can use them in a dictatorial way that destroys these advantages completely. She can also use games in such a way that children are prevented from thinking. The most important part of a Piagetian curriculum, after all, is not so much what is taught, but how things are taught. How the teacher interacts with children from moment to moment makes the difference between a program that helps the child construct his personality and knowledge and one which merely tries to elicit certain surface behavior.

Piaget wrote primarily about games which children learn and play without adults. At the 4-year level, however, when few children organize games on their own, the teacher's initiation and participation are particularly important. Our current research focuses on the question

10025

of how to teach group games, and we plan to answer this question more specifically in the near future.

NOTES

<sup>1</sup>We would like to express appreciation to Dr. H. Sinclair of the University of Geneva for critically reading the manuscript and contributing many ideas.

<sup>2</sup>It should also be noted that, "egocentrism" is not a value judgment but a neutral description that refers to perspectives. Egocentrism is different from selfishness which refers to greediness or other acts of bringing pleasure to oneself, disregarding the welfare of others. The 2-year-old's egocentrism causes him to behave in ways which may be selfish when found in an older child's behavior. For example, when an 8-year-old monopolizes a toy that others want, we may be justified in concluding that he is being selfish. When a 2-year-old behaves in this same way, however, we should not conclude that his selfishness is the same as that of the 8-year-old. This same behavior on the part of the 2-year-old is not selfish because he cannot think about the other's perspective, and, thus, cannot understand that he is causing unhappiness to the other.

<sup>3</sup>This example should not be confused with the common belief that positive reasons (rewards) work better than negative ones (punishment). We happen to agree with this belief, but this is not what Piaget is talking about. Piaget is talking about moral development through decentering and treating others as we want others to treat us.

<sup>4</sup>For example, when a child has monopolized a toy that other children want badly, the teacher may have to insist on sharing. In such a situation she can still try to protect the child's autonomy by figuring out how to get him to relinquish the toy voluntarily. One way of doing this is to say, "You've played with it for a long time, and Johnny has been waiting for his turn. Would you give him a turn in a few minutes and take it to him?" We

have seen this approach result in autonomous sharing. This approach leaves some room for the child to act out of his own choice. While the young child may not fully be able to think about how the other child feels, he is still in some measure recognizing the existence of another person's desire and thus is constructing his own moral rule.

<sup>5</sup> Safety zones are areas in which "It" cannot tag anyone.

<sup>6</sup> We have altered the translation of the French expression "controle mutuel" from "mutual control" to "mutual adjustment," because we feel this is closer to Piaget's meaning.

<sup>7</sup> The hyphen in "co-operation" has a significance. It indicates Piaget's insistence that operations literally come into being as a result of co-operation with other points of view.

<sup>8</sup> See Footnote 6.

<sup>9</sup> For further details on logico-mathematical knowledge, the reader is referred to Kamii, C. and DeVries, R. (in press).

<sup>10</sup> The issue of competition is beyond the scope of this paper, but will be discussed in the book on group games which is in preparation.

<sup>11</sup> It is true that children may enjoy some games which do not seem to contribute much to development. Usually, however, the ones they enjoy are just right for promoting development. We can at least be certain that unenjoyable games are undesirable ones which are of no good developmental use to the child.

References

- Bancroft, Jessie H. Games. New York: Macmillan, 1937.
- Hildebrand, Verna. Introduction to early childhood education. New York: Macmillan, 1971.
- Kamii, C., & DeVries, R. Piaget for early education. In R. K. Parker (Ed.), The preschool in action (Second Edition). Boston: Allyn and Bacon, in press.
- Kellogg, Rhoda. Nursery school guide. Boston: Houghton Mifflin, 1949.
- Opie, Iona & Opie, Peter. Children's games in street and playground. Oxford: Claremont Press, 1969.
- Palmer, Mary Watson (Ed.), Day care aides: A guide for in-service training. New York: National Federation of Settlements and Neighborhood Centers, 1968.
- Piaget, Jean and Inhelder, Barbel. The child's conception of space. New York: W. W. Norton and Company, Inc., 1967 (first published in French in 1948).
- Piaget, J. The moral judgment of the child. New York: The Free Press, 1965. (first published in French in 1932).
- Piaget, Jean. Play, dreams, and imitation in childhood. New York: W. W. Norton and Company, Inc., 1962. (first published in French in 1946).
- Piaget, Jean. The psychology of intelligence. Paterson, New Jersey: Littlefield, Adams and Co., 1963 (first published in French in 1947).
- Read, K. The nursery school: A human relationships laboratory. Philadelphia: W. B. Saunders, 1971, Fifth edition.
- Wills, Clarice D. Guiding play and physical activity. In J. E. Leavitt (Ed.), Nursery-kindergarten education. New York: McGraw-Hill, 1958.

00020

## Postscript

The Educational Resources Information Center/Early Childhood Education Clearinghouse (ERIC/ECE) is one of a system of 16 clearinghouses sponsored by the National Institute of Education to provide information about current research and developments in the field of education. The clearinghouses, each focusing on a specific area of education (such as early childhood, teacher education, language and linguistics), are located at universities and institutions throughout the United States.

The clearinghouses search systematically to acquire current, significant documents relevant to education. These research studies, speeches, conference proceedings, curriculum guides, and other publications are abstracted, indexed and published in Resources in Education (RIE), a monthly journal. RIE is available at libraries, or may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Another ERIC publication is Current Index to Journals in Education (CIJE), a monthly guide to periodical literature which cites articles in more than 560 journals and magazines in the field of education. Articles are indexed by subject, author, and journal contents. CIJE is available at libraries, or by subscription from Macmillan Information, 909 Third Avenue, New York 10022.

The Early Childhood Education Clearinghouse (ERIC/ECE) distributes a quarterly newsletter (\$2.00 - 4 issues) which reports on new programs and publications, and RIE documents of special interest. For a complete list of ERIC/ECE publications, or if you would like to subscribe to the Newsletter write: Publications Office/IREC, College of Education, University of Illinois, 805 West Pennsylvania Avenue, Urbana, Illinois 61801. All orders must be accompanied by check or money order, payable to the University of Illinois. Sorry, we cannot bill.

ERIC CLEARINGHOUSES--CURRENT ADDRESSES

CAREER EDUCATION

204 Gurler  
Northern Illinois University  
DeKalb, Illinois 60115

COUNSELING AND PERSONNEL SERVICES

The University of Michigan  
School of Education Building  
Room 2108, East Univ. & South Univ.  
Ann Arbor, Michigan 48104

\*EARLY CHILDHOOD EDUCATION

University of Illinois  
805 W. Pennsylvania Ave.  
Urbana, Illinois 61801

EDUCATIONAL MANAGEMENT

University of Oregon  
Eugene, Oregon 97403

HANDICAPPED AND GIFTED

The Council for Exceptional Children  
1920 Association Drive  
Reston, Virginia 22091

HIGHER EDUCATION

George Washington University  
1 Dupont Circle, Suite 630  
Washington, D.C. 20036

INFORMATION RESOURCES

School of Education, SCRDT  
Stanford University  
Stanford, California 94305

JUNIOR COLLEGES

University of California  
96 Powell Library  
Los Angeles, California 90024

LANGUAGES AND LINGUISTICS

Modern Language Assoc. of America  
62 Fifth Avenue  
New York, New York 10011

READING AND COMMUNICATION SKILLS

1111 Kenyon Road  
Urbana, Illinois 61801

RURAL EDUCATION AND SMALL SCHOOLS

New Mexico State University, Box 3AP  
Las Cruces, New Mexico 88003

SCIENCE, MATHEMATICS, AND ENVIRONMENTAL  
EDUCATION

Ohio State University  
1800 Cannon Drive, 400 Lincoln Tower  
Columbus, Ohio 43221

SOCIAL STUDIES/SOCIAL SCIENCE EDUCATION

855 Broadway  
Boulder, Colorado 80302

TEACHER EDUCATION

1 Dupont Circle N.W., Suite 616  
Washington, D.C. 20036

TEST, MEASUREMENT AND EVALUATION

Educational Testing Service  
Princeton, New Jersey 08540

URBAN EDUCATION

Teachers College, Box 40  
Columbia University  
New York, New York 10027

\*ERIC/ECCE is responsible for research documents on the physiological, psychological, and cultural development of children from birth through age eight, with major focus on educational theory, research and practice related to the development of young children.