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Anthropological studies of children's play and games

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ANTHROPOLOGICAL STUDIES OF CHILDREN'S PLAY AND GAMES

by

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ANTHROPOLOGICAL STUDIES OF CHILDREN'S PLAY AND GAMES

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Abstract

This paper examines how anthropologists have viewed children's play and games since the discipline's beginning in the late 19th century. Play has been variously interpreted based on ideas from evolutionary theory, diffusionism, particularism, functionalism, culture and personality schools, cognitive/structural approaches, ethology, ecology and communication.

Children's play has generally been ignored or used to prove specific theories, and has only recently been recognized as an important human behavior. Recent studies reflect concerns for understanding play in terms of text and context, levels of communication, and social and cognitive consequences.

Many issues remain unresolved: (a) whether "play" may be precisely defined; (b) the distinction between play and games; and (c) the assumption of a play/work dichotomy. It has been suggested that these problems largely exist because researchers cannot fully separate themselves from their topic, which is why the study of play is so suitable to the theories and methodologies of anthropology.
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Introduction

Anthropologist Edward Norbeck (1974a) has described play as a universal human behavior:

It exists in every human society, and is both a biological and cultural phenomenon. In common with other species of the mammalian class, mankind is genetically endowed with the capacity or proclivity for play. Unlike nonhuman species, however, man's specific forms of play are learned, culturally molded ways of behaving that hold much in common in every society but nevertheless differ in every society. (pp. 267-268)

Until recently, however, anthropology has given little attention to the study of human play:

In view of the objectives of anthropology of learning the nature of man as a living organism and the nature of his culture, the learned and socially transmitted ways of human life, the anthropological neglect of the study of play seems astonishing. (Norbeck, 1974a, p. 267)

The slow recognition of play as a valid subject of scientific study has been attributed by Norbeck (1974a, 1977) and others to the effects of the complex of attitudes and values of the Protestant ethic, whereby work is regarded as virtuous while play is sinful. Norbeck (1977) further suggested that the emergence of play as a topic of study "is a reflection of a broad general trend of the growth of science and of related changes about the nature of the universe, the human condition, and the propriety of behavior" (p.13), which Norbeck has referred to as "Man's
Rediscovery of His Animal Nature" (p. 13).

Anthropologists seem to have uncritically accepted the work-play distinction characteristic of Western societies (Schwartzman, 1978, p. 5). During the late 19th and early 20th centuries, some anthropologists and folklorists (inspired by Tylor, 1879b, who used games to illustrate his theories of diffusion) were very serious about the study of play and games. During these early years of anthropology, investigations of play appeared in volumes of American Anthropologist, and extensive game collections were published (e.g., Newell, 1883; Culin, 1895, 1907). With few exceptions (e.g., Best, 1925; Lesser, 1933), the anthropological study of play did not progress much beyond these early studies until the late 1950s, when Roberts, Arth, and Bush (1959) published "Games in Culture." This article, which presented a theoretical framework for examining the geographical distribution and sociocultural significance of games, "served effectively to re-open the field of play research for anthropologists" (Schwartzman, 1978, p. 5).

In 1974, The Association for the Anthropological Study of Play (TAASP) was established in response to the challenge that Norbeck and others had offered (Schwartzman, 1978, p. 6). Since then, TAASP has provided anthropologists, folklorists, psychologists, psychiatrists, and sociologists
with a forum for exchanging a variety of theoretical and methodological approaches to the study of human play. In addition to reports investigating children's play (which is the focus of this paper), the published proceedings of annual TAASP meetings have covered a number of topics related to human play, including linguistic play, adult play, animal play, ritual dimensions of play, expressive aspects of play, play in literature, humor, theoretical models of play, and so on.

In addition to some of the papers published annually by TAASP, there is a single source which is invaluable to students of children's play--Transformations: The Anthropology of Children's Play by Helen Schwartzman (1978). This is the first and only comprehensive review of the anthropological literature on this subject, and it also includes literature from other fields which has influenced anthropologists' views of play. In this book, Schwartzman examined "not only play in its various cultural contexts, but also culture as it has been played (i.e., 'metaphorized') in its various anthropological contexts" (p. 2). In doing so, the author (a) discussed the history of Western ideas about childhood and children, (b) surveyed ethnographic reports according to geographic region, and (c) examined how specific anthropological theories of cultures have influenced descriptions and interpretations of children's play behavior.
The goal of this paper is to present a brief, but comprehensive, review of the anthropological literature on children's play. Since *Transformations* is the only comprehensive resource of its kind, by necessity much of the content and organization of this paper follows that of Schwartzman's 1978 book. However, this paper also includes a number of subsequent studies, most of which appear in the annual TAASP volumes.

The organization of this paper begins more or less chronologically, in the late 19th century, and ends with a number of recent investigations based on ideas first presented by Bateson in the late 1940s and early 1950s. The sections that follow review how studies of children's play and games have been influenced by: (a) evolutionary theory, diffusionism and historical particularism; (b) structural functionalism; (c) culture and personality approaches; (d) recent structural and cognitive approaches; (e) ecological perspectives; (f) ethology; and (g) a view of play as communication. The closing section briefly examines some currently unresolved issues in play research, comments upon current trends, and suggests directions for future investigations.
The Influences of Evolutionary Theory, Diffusionism and Historical Particularism on Studies of Children's Play

Introduction

The field of anthropology, as well as the anthropological study of games, was inaugurated by Edward Tylor in the late 19th century during the rise of evolutionary theory. Ideas such as unilineal stages of cultural evolution, survivals, and recapitulation came to be applied to children and their games. The notion of "stages" persists today, particularly in the theories of developmental psychologists (Schwartzman, 1978, p. 59).

During the late 19th and early 20th centuries, there was a shift from the "armchair" search for universal stages of cultural evolution to the collection and classification of ethnographic facts. Diffusionists used types of games and game implements to support theories of culture contact. Particularists regarded children as "primitives" and sought to preserve their vanishing customs (i.e., games and rhymes). As a result of the interests of these early investigators, children's play was regarded as formalized, rule-regulated games. This is one of the most widely held views of children's play in the literature (Schwartzman, 1978, pp. 66-67).
Evolutionary Theory and Children's Play:
Survivals, Recapitulation, and Developmental Stages

The Inauguration of the Anthropology of Games

The anthropology of children's play began as the study
of games and was launched in the late 19th century by Edward
B. Tylor (1871), who is regarded as "the father of anthropology"
(Schwartzman, 1978, p. 44). Like most scholars of his time,
Tylor was influenced by the idea of evolutionary stages of
culture (i.e., savagery, barbarism, and civilization). He
was interested in the origin and evolution of particular
customs and beliefs, and developed the concept of cultural
"survivals" as evidence for the existence of stages of
cultural evolution. Tylor (1879a) proposed that games might be
survivals in childish form of adult activities in earlier
societies. This concept is found in many early studies of
games, and is occasionally found in more recent collections.

The "Scientific" Study of Children's Play

Recapitulation theory: G. Stanley Hall. Hall (1904) began
the "scientific" study of children's play at the turn of the
century (Schwartzman, 1978, p. 46). Influenced by concepts
of evolutionary stages, recapitulation, and survivals, Hall
proposed that the play stages of children recapitulated the
entire bio-cultural history of mankind.

Mabel Reany (1916), who based her work on Hall's theory, suggested that various stages of childhood could be divided into play periods that correspond to the evolutionary stages of mankind. The animal stage (ages 0-7) was characterized by swinging and climbing games. The savage stage (ages 7-9) consisted of hunting and throwing games. Children in the nomad stage (ages 9-12) were interested in pets, and those in the pastoral and tribal stages (ages 12-17) were interested in gardens, playing with dolls, and participating in team games.

Hall's theory also influenced the playground movement which had begun around the turn of the century. Reformers associated with this movement (e.g., Jane Addams; Henry Curtis) proposed various ways of designing and supervising playgrounds in urban slums in order to appropriately channel children's recapitulatory development (and thus cultivate more socially and morally upright citizens) (Cavello, 1976). An important result of this movement, particularly for adolescent peer groups, was the increased emphasis on participation in supervised athletic team games. (Adolescent peer groups were often regarded as the modern counterpart of the "tribe.") (Schwartzman, 1978, p. 48)
cultural evolutionary theory fell into disfavor among anthropologists by the 1920's, psychologists continued to incorporate ideas of developmental stages and recapitulation into their theories of children and children's play (Schwartzman, 1978, p. 59).

For example, Sigmund Freud outlined a sequence of psychosexual or libidinal stages that children passed through (i.e., oral, anal, Oedipal, latency, and genital). According to Freud, the wishes and anxieties arising in each stage would be reflected in children's play (Gardner, 1978, pp. 204-205). Lili Peller (1954) explored the relationships between play, libidinal stages, and ego development. She focused on how play activities help children overcome anxieties associated with the deprivations within each libidinal stage.

Psychoanalyst Erik Erikson (1963) developed a theory of psychosexual development which identified specific play stages: (a) autocosmic play (i.e., repetitional play); (b) play in the microsphere (i.e., solitary play with toys); and (c) play in the macrosphere (i.e., play with others). Erikson described children's play as an infantile form of the ability to cope with experience (by creating model situations) and the ability to master reality (through experimentation and planning).
Developmental stages: Piaget. Swiss scientist Jean Piaget, who began his career during the early part of the 20th century, is regarded as the preeminent student of child development, and his developmental schema for play is widely used. The evolutionist perspective is central to Piaget's theory of development, in which intelligence, moral growth, and varieties of play are described in terms of unilineal stages that proceed from lower, concrete stages to stages of a higher abstract order. During each developmental stage there is a shift in the use of the two cognitive poles (i.e., assimilation and accommodation) which internalize adaptive action on the environment.

Based on observations of his own children, Piaget (1951) described play behaviors typical of each stage of cognitive growth. During the sensorimotor stage (ages 0-18 months) play is characterized by the pleasurable repetition of newly mastered motor abilities. This motor practice play progresses from chance or planned combinations of acquired skills, to constructive play, symbolic play, and socialized play with rules.

During the preoperational or symbolic period (ages 18 months to 7 years), when children are able to represent something with something else in speech, play, gestures, and mental pictures, simple pretend play gradually evolves into increasingly coherent and elaborate imaginative play.
The concrete operational stage (ages 7-11 years), in which a child becomes capable of a certain logic involving manipulable objects, is characterized by games with rules. Games with rules, according to Piaget, correspond closely with reality and therefore prepare children for the final stage of formal operations (beyond 11 years of age). By this period, reasoning is based on purely verbal or logical statements.

In an earlier study, Piaget (1932) analyzed how play behavior and rule-consciousness reflect the growing child's increasing autonomy of "moral consciousness" and the changing complexities of adult-child relationships. He focused on the game of marbles as played by Swiss boys, and outlined a progression of overlapping stages related to the practice of rules in game play and to the conceptualization of rules.

Children in the first stage of play (ages 0-2 years) enjoy individual, repetitive motor play and handle the marbles according to their own dictates. During the egocentric period of play (ages 2-5 years), children are taught the rules of the game and although they may try to imitate the appropriate game behavior, they actually continue to play by themselves in their own way.

With incipient cooperation (ages 7-11 years), each player tries to win the game and is concerned about playing with others according to a unified set of rules. In the
last stage of game play (after age 11), children observe an actual code of rules which is known to the whole society.

These stages of game playing overlap with stages of rule-consciousness. At first (ages 1-3) rules are perceived as non-obligatory because the child's interest in the game is strictly a motor one, and rules are regarded merely as interesting examples. During the period of heteronomy (ages 4-8 years) children perceive rules to be both emanating from adults and immutable. This is followed by a period of autonomy (ages 9-10 years) in which rules are perceived as deriving from a social consensus and may be changed if most players agree.

The restricted sociocultural context of Piaget's observations weakens his models, and some critics have reported play sequences which do not conform to his developmental schema (e.g., Mead, 1930; Smilansky, 1968; Opie & Opie, 1969; Eifermann, 1970, 1971; Singer, 1973).

Schwartzman (1978) discussed another problem with Piaget's models (and most developmental models): they imply not only that children engage in more primitive or lower levels of playing and thinking than adults, but also perpetuate the idea that individuals in non-literate societies have a lower level of conceptual abilities than individuals in literate societies (p. 54).
The Collection and Classification of Games: Diffusionism and Particularism

Children's Play as Formalized Games and Rhymes

In the late 19th and early 20th centuries most anthropological and folklore investigations of children's play and games presented compilations of play "facts." Particularists believed these facts would lead to theoretical generalizations, and studies of games were often used as evidence supporting or refuting theories of cultural evolution or culture contact (Schwartzman, 1978, p. 66).

These studies reflect a view of play as formalized, rule-regulated games in which children participate. Informal, spontaneous children's play was generally not considered. Furthermore, many of these researchers relied on adult informants' memories of their childhood games, rather than direct observations, for their data (Schwartzman, 1978, p. 67).

Edward B. Tylor and Game Diffusion

In addition to Tylor's interest in the study of the origin and evolution of particular beliefs and customs, he also studied the borrowing of one society's traits and customs by another society, which later became known as
diffusionism. He believed that complex aspects of culture could only have arisen at one time and place, and he used games as evidence for his theories of culture contact (Avedon & Sutton-Smith, 1971, p. 55). For example, in "The History of Games" (1879a) Tylor wrote:

An intelligent traveller among the Kalmuks, noticing that they play a kind of chess resembling ours, would not for a moment entertain the idea of such an invention having been made more than once, but would feel satisfied that we and they and all chess-players must have had the game from the original source. In this example lies the gist of the ethnological argument from artificial games, that when any such appears in two districts it must have travelled from one to the other, or to both from a common centre. (p. 63)

In this article Tylor presented certain games as evidence of the spread of civilization from S. E. Asia, through Malayo-Polynesian districts, to New Zealand.

In another well known article, Tylor (1879b) examined the features shared by the Aztec game patolli and the Hindu game pachisi (e.g., scoring; throwing lots to determine the movement of counters; the cross-like shape of the game boards). He used the similarities of these two games to argue that lot games were brought to the North American continent from Asia before the time of Columbus. In a subsequent article, Tylor (1896) used the theory of probability to further support his theory.

Collectors of English-Speaking Children's Games
William Wells Newell. The first large-scale, systematic collection of English-speaking children's play was *Games and Songs of American Children* by William Wells Newell (1883, expanded in 1903) (Schwartzman, 1978, p.67). Newell, one of the founders along with Franz Boas of the American Folklore Society, believed that children's games were quickly disappearing. He carefully collected the texts of children's games by means of field notes and historical documents, and arranged his material according to "themes" (e.g., love games; histories; playing at work; humor and satire; games of chase; guessing games).

In this landmark work, Newell was interested in showing that:

The resemblance of children's songs (and games) in different countries, like the similarity of popular traditions in general, is owing to their perpetual diffusion from land to land. . . which has been going on in all ages, in all directions, and with all degrees of rapidity. (p. 4)

He also believed that American children's games and songs were in a "purer" state of preservation in America than in England, where games had already begun to disappear or radically change.

Newell's collection also illustrates the influence of the notion of survivals on interpretations of children's play. According to Newell, "the social state and habits of half a thousand years ago unconsciously furnish the
amusement of youth, when faith and fashion of the ancient
day is no longer intelligible to their elders" (p. 5).
For example, ring dances such as "Happy is the Miller"
and "Three Jolly Sisters" were interpreted as survivals
of adult dances and customs "which belonged to courtiers
and noble ladies in the time of Shakespeare" (p. 124).

Lady Alice Bertha Gomme. Another famous collection
of children's games and songs is The Traditional Games of
England, Scotland and Ireland by Lady A. B. Gomme (1894,
1898). This collection was published in two volumes and
is arranged in dictionary form according to game name.

Unlike preceding English play-lore collectors,
Gomme (a) distinguished children's games from adult games,
(b) did not limit her study to verbal aspects of children's
games, (c) distinguished playground lore from nursery lore,
and (d) systematically presented the geographical location
of games and their variations.

Gomme's collection was based primarily upon
recollections of childhood games by adult correspondents.
As a result, the games represented the play life of
"proper" Victorian adults reporting on socially acceptable
games (thus excluding games of the poor and illiterate urban
children).

Gomme, as did Newell, emphasized that games were survivals
of practices in earlier cultural stages. For example, "Nuts in May" was considered a survival of ancient "tribal" customs of marriage by capture. Examples of other games regarded as survivals include "Oats and Beans and Barley" (a harvest custom to propitiate the earth spirit), "Mother, Mother, the Pot Boils Over" (hearth or fire worship), and "London Bridge" (foundation worship).

Gomme's research prompted Newell to alter his view that the games of England had been preserved more adequately in America. However, the similarities between the games described by Newell in his 1883 edition and Gomme's volumes confirmed his view that American children's games had diffused from England to America (Schwartzman, 1978, p. 68).

**Children's Games Reported in "American Anthropologist"**


Babcock began his article by describing his methodology:
My method has been to wander through promising neighborhoods in the twilight of summer or lie in wait in my study and sally out when anything novel in the way of child music was borne in through the windows, hurried notes being taken in either case, often under great difficulties. (1888, p. 243)

He also obtained information from "juvenile reporters," and occasionally from adult recollections.

Babcock described approximately 100 games (which contain a "literary element"), classified into 15 types. Examples of this classification include archway games (e.g., "London Bridge"), games of mimicry (e.g., "Post Office"), games of hands and feet (e.g., "This little pig went to market. . ."), and games of search (e.g., "Blind Man's Bluff").

Babcock also viewed many games as survivals. For example, he described the game "Silence" in this way:

The word tells the whole story. Who speaks first loses. It may be the remnant of some belief in a spell, an imitation of 'Quaker meeting,' a commonplace test of endurance, or an invention of higher powers for promoting rest and quiet occasionally." (p. 276)

J.O. Dorsey. Most of the articles on children's play in the early volumes of American Anthropologist were concerned with North American Indian games. One such report was "Games of Teton Dakota Children" by J. Owen Dorsey (1891). He arranged and translated into English material from a collection of texts, which had been written by Dakota Indian
George Bushotter, and were in the possession of the Bureau of Ethnology in Washington, D. C. The descriptions presented by Dorsey are widely cited in Stewart Culin's (1907) compilation of North American Indian games and "remain today as one of the most complete accounts of this activity for North American Indian groups" (Schwartzman, 1978, p. 71).

This account described five games played by children and adults, and 57 games played by children. Dorsey arranged the games according to the sex of the participating players and the season(s) in which the games were played. Most of the games described were played by boys, including "sport with mud horses" (spring), "throwing chewed leaves into the eyes" (summer), "hoop that is made to roll by the wind" (autumn), "buffalo horn game" (winter), and "pretending to die" (no season reported).

Girls and boys seldom played together. The only play attributed to girls alone was pretend play which imitated the actions of women, such as carrying dolls on their backs, cooking, pitching tents, and so on.

W. S. Monroe. Using information obtained from compositions written by Massachusetts school children (ages 7-16 years), W. S. Monroe (1904) examined counting-out rhymes. Monroe, who believed that rhymes were universal features of play
and games, found that only five of the over 2000 children in the study never used counting-out rhymes.

The children reported using counting-out rhymes (a) to determine who would take the undesirable role in the game, and (b) for "divination purposes," such as predicting occupations, prospective husbands, number of children, life span, and so on.

The content of girls' rhymes were usually about color, dress, love, courtship and marriage, while boys' rhymes dealt with number combinations, animals and "natural phenomena."

Monroe regarded counting-out rhymes as survivals of the spoken charms of sorcerers or priests--"the oldest things in the world, linking the child through his play life to the mental life of savages and barbarians" (1904, p. 50).

Stewart Culin

A major game scholar around the turn of the century was Stewart Culin who, like Tylor, Newell, and others, used his collection of facts to argue for and against particular theories of cultural evolution and cultural diffusion. Unfortunately, his studies generally did not examine children's play activities, other than to describe toys or specific game rules (e.g., 1895; 1899; 1900) (Schwartzman, 1978, p. 66).
Culin's 1907 monograph is probably the most comprehensive work on the technology, distribution and history of North American Indian games (Avedon and Sutton-Smith, 1971, p. 60). In this monograph, Culin classified all reports of children's games as "games of dexterity." (His other major category was "games of chance," which included dice games and guessing games, for example.) He described 13 types of dexterity games played by children, and he illustrated many of the implements used in these games. Some of the games described include stilts, tops, cat's cradle and jack straws. Culin also listed other reports which mention or describe specific games played by various North American Indian groups.

One of Culin's earliest articles, "Street Games of Boys in Brooklyn" (1891), was devoted specifically to children's play, and his informant was a ten-year-old boy. Culin grouped his data into the following categories: (a) variations of tag (e.g., Fence Tag); (b) games of pursuit and capture (e.g., Hare and Hounds); (c) games of hiding (e.g., I Spy); (d) games using bases (e.g., Kick the Wicket); (e) vaulting games (e.g., Leapfrog); (f) other ball and bat games (e.g., Handball); and (g) miscellaneous games (e.g., Hopscotch).

Culin's young informant also described some "initiation" games that a new boy had been invited to play before being accepted in the neighborhood. One such game was Fire:
FIRE is a game in which the new boy is made a fireman in search of a fire; and when he cries out, as he has been instructed, "Fire! Fire! Fire!" the others come running from their engine-houses and salute him with a shower of stones. (p. 237)

Walter E. Roth

"Games, Sports and Amusements" (1902) is one of a series of ethnographic studies of Australia's North Queensland aboriginal groups by Walter E. Roth, who was the government's "Chief Protector of Aboriginais" (Schwartzman, 1978, p. 74). His detailed descriptions are accompanied by photographs and illustrations.

Roth classified the games into seven categories. Most children's games were classified as imitative of adult activities (e.g., catching cockatoos) or of nature (e.g., string figures). Roth illustrated 74 string figures representing animals, plants, manufactured objects and human activities.

The other categories of games described by Roth include: imaginative games (e.g., story-telling); realistic games (e.g., playing with pets; vine-swinging); discriminative games (e.g., hide-and-seek); disputative games (e.g., tug-of-war); propulsive games (e.g., boomerangs); and, exultative games (e.g., dancing). In this report, Roth also included several games introduced by settlers, missionaries and others (Schwartzman, 1978, pp. 74-77).
Eldson Best

Another significant ethnographer of children's games in the early 1900's was Eldson Best. He collected data for his monograph *Games and Pastimes of the Maori* (1925) from his own observations and from museum collections of artifacts, photographs, illustrations and published accounts.

Best classified traditional Maori games and pastimes as: (a) military exercises and games providing physical training (e.g., boxing); (b) games requiring agility or manual dexterity (e.g., cat's cradle); (c) games requiring mental alertness or memorization (e.g., riddles); (d) introduced games; and (e) Maori songs and musical instruments.

He also included a chapter on children's games and pastimes which described activities such as stilt walking, swinging, top spinning, hoops, hide-and-seek, jumping jacks, kite-flying, and a variety of hand games (cited in Schwartzman, 1978, pp. 77-79).

Recent Collectors of Children's Play and Games

Paul Brewster

Collections of children's play and games have also
been made in recent decades. During the 1940's and 1950's American folklorist Paul G. Brewster wrote many articles on children's play in various cultures, including games from Africa (1944), Greece and Czechoslovakia (1948), Hungary (1949a), Roumania (1949b), India (1951), Russia (1959), Turkey (1960), and America (1945a; 1945b).

Brewster's most detailed studies are of American children's play. He obtained the material for Children's Games and Rhymes (1952) from the folklore collection of Frank C. Brown of Duke University. The collection, which was written primarily between 1912 and 1943, is based on data from white informants living in the mountainous areas of western North Carolina.

Brewster arranged this material into 18 categories of games (e.g., ball games; jumping games; games of dexterity; courtship and marriage games) and 16 categories of rhymes (e.g., counting-out rhymes; recitations; tongue twisters; "smart aleck" rhymes). In addition to descriptions of the games and rhymes, Brewster included historical and geographical information as well as additional references (cited in Schwartzman, 1978, p. 80).

Another well-known collection by Brewster is American Non-Singing Games (1953). He presented his material in a manner similar to the 1952 collection: there are 14 games categories, each of which is illustrated with up to
twenty-three specific game texts, historical notes, cross-cultural versions, and additional references.

Not only was Brewster interested in "such matters as the origin, diffusion and life history of the games," he also adhered to the notion of survivals: "As has long been recognized by students of folklore, there have been preserved in our children's games vestiges of many very ancient customs and beliefs" (1953, p. xix).

Brewster also collaborated with Thomas Sebeok to produce a detailed account of games of the Cheremis, a Uralic people (Sebeok & Brewster, 1958). Seven sources were utilized for this collection, including published and unpublished Russian and Cheremis texts, and a Cheremis informant at Indiana University.

The authors arranged 97 games into seven types: "it" games; individual competition; team play; partners; rhythmic and dramatic games; practical jokes; and, unclassified or unidentified games. As in Brewster's other works, geographical distribution and historical information accompany each game description.

Metin And

Paul Brewster (1960) is one of just a few researchers to present material (in English) on Turkish folkgames. Recently, folklorist Metin And (1979) provided information
on this topic in the tradition of a collector/classifier. The folkgames described in this article are played by both adults and children in rural communities. In addition to being played for amusement, folkgames are sometimes played to increase the fertility of crops and herds, to cure ailments, or to bring luck to newlyweds.

Verbal or vocal expression is one of the most important aspects of Turkish folkgames, and includes activities such as songs and chants, rhymes, tongue twisters and riddles. Conversely, there are a large number of silent games in which speaking is prohibited. There are also ghost games, seasonal games, gambling games, and a large variety of ball, stone, and stick games.

Dorothy Howard

At 70 years of age, Dorothy Mills Howard went to Australia in 1954 as a Fulbright Scholar sponsored by the University of Melbourne. For 10 months she collected and studied white Australian children's traditional games (Howard, 1960a). Of this folklorist, Helen Schwartzman remarked:

Taken as a whole, her published studies represent one of the few explicit attempts available that record white Australian children's traditional games, to be compared with Roth's (1902) early description of aborigine games. (Schwartzman, 1978, p. 85)
In a footnote to one of her articles, Howard listed in considerable detail how she collected her data:

by visiting playgrounds and classrooms of both government and non-government schools; visiting public playgrounds; visiting in homes; loitering on streets and public beaches where children were playing; from written compositions of school children and letters from older people; by talking with school masters and mistresses, fathers, mothers, educationalists, physical educationalists, ministers, priests, anthropologists, psychologists, people on buses, trams, trains and planes; by studying school syllabi; searching libraries; visiting toy ships; and through publicity in newspapers and magazines throughout Australia and radio addresses in Canberra and in Perth. (1960a, p. 165)

Although most Australian adults were of the opinion that their children had no traditional games, Howard found hundreds of them. She reported some of her findings in articles on games of hopscotch (1958a), knucklebones (1958b), ball-bouncing (1959), marbles (1960a), and Toodlembuck (a gambling game) (1960b).

Iona and Peter Opie

The current major collectors of English children's rhymes and games are Iona and Peter Opie (Schwartzman, 1978, p. 87). Their first major collection, The Lore and Language of School Children (1959), reported on the oral lore that contemporary British children learn from one another (as opposed to lore taught to children by adults, such as nursery rhymes).
Over a period of years, the authors collected survey data from 5000 children attending over 70 rural and urban schools in different parts of England, Scotland, Wales and in one district in Dublin. The resulting collection includes numerous examples of children's speech play, such as jokes, chants, nicknames and satire.

The authors found that children everywhere have a "thriving, unselfconscious culture" of their own, and they were also able to catch glimpses of oral transmission in actual operation:

like the savage, they are respectors, even venerators, of custom; and in their self-contained community their basic lore and language seems scarcely to alter from generation to generation. . . . The speed with which a newly made-up rhyme can travel the length and breadth of the country by school child grapevine seems to be little short of miraculous" (pp. 2, 5-6).

The Opies identified two distinct streams of oral lore: "Slangy, superficial lore," which spreads rapidly, is transitory, and is what one first hears on the streets and playgrounds (e.g., comic songs, jokes, catch phrases, fashionable adjectives); and "dialectic lore," which persists over time but is limited in locality (e.g., rhymes of warning, sneaking, swearing, and tormenting).

The data are classified according to characteristic features of linguistic lore. For example, the chapter on playful rhymes (as opposed to game rhymes) includes
satirical rhymes, tangle talk (i.e., "utter nonsense"),
puns, tongue twisters, tales which never end, and spookies
(i.e., scary rhymes or stories recited when lights are low).

Other chapters report example of speech play involving
wit and repartee, guile, riddles, parody and impropriety,
topical rhymes, nicknames and epithets, jeers and torments,
the child and authority, and pranks.

*Games in Street and Playground* (1969) is another major
collection by Iona and Peter Opie. For this study, data
were collected from more than 10,000 school children living
in major cities in Britain. This time the Opies were

concerned solely with the games that children, aged
about 6-12, play of their own accord when out of
doors, and usually out of sight. . . simple games
for which, as one child put it, "nothing is needed
but the players themselves." (p. v)

The authors excluded adult supervised games, team sports,
gambling games, hopscotch, marbles, games with balls, and
singing games.

As in their 1959 study, the Opies focused on the
continuity of children's games through time. They described
children's games as "living organisms which are constantly
evolving, adapting to new situations, renewing themselves
or being replaced" (p. vii). This assumption is unlike
that of the early folklorists, who thought that children's
games were "archaeological remains" and were rapidly
disappearing.
In this study, as in almost all text-collecting reports, games are classified according to researcher-determined structural characteristics, and include games of chasing, guessing, racing, daring, and pretending. Significant regional variations, colloquial and dialectic names, historical information, and cross-cultural comparisons are also included for the games described.

As an illustration of the detailed classification scheme the Opies used, one chapter describes duelling games "in which two players place themselves in direct conflict with each other, yet scrupulously observe the conventions of encounter" (p. 212). Duelling games are arranged according to the following categories: (a) contests mainly requiring strength; (b) contests requiring nerve and skill; (c) contests requiring fortitude; and (d) duels by proxy. Contests requiring fortitude, for example, include the games knuckles, flat jack, bob and slap, slappies, stinging, and stampers.

Brian Sutton-Smith

Brian Sutton-Smith is not only one of the most prolific scholars of children's play, but is also a very versatile one. For more than 30 years he has studied children's play and games from the theoretical perspectives
of folklore, psychology, anthropology and sociology (Schwartzman, 1978, p. 82). Unlike most text-collecting researchers, who have emphasized the universality and similarity of children's games throughout history and across cultures, Sutton-Smith has focused on changes in games over time and variations in games from society to society (Sutton-Smith, 1972a, p. 3; 1981, p. viii).

His earliest studies are collections of New Zealand's Pakeha (European) children's games. From 1949 through 1951 Sutton-Smith collected hundreds of reports, questionnaires and student essays. He also interviewed and observed children's play on one particular playground. His informants were people of all ages from all over the country (Sutton-Smith, 1972a, p. 9).

Articles based on this research include: "New Zealand Variants of the Game Buck-Buck" (1951b); "The Fate of English Traditional Games in New Zealand" (1952); "The Game Rhymes of New Zealand Children" (1953a); "Marbles are In" (1953b); and, "The Traditional Games of New Zealand Children" (1953c).

Sutton-Smith has also written two books on this subject. The Games of New Zealand Children (1959) is the first detailed study of Pakeha children's play (Schwartzman, 1978, p.83). In this study, Sutton-Smith classified games into 10 major categories (e.g., leader games; parlor games;
games of skill). He also compared games played during the years 1870-1920 with those played from 1920-1950. Finally, he included a brief developmental synopsis of the types of games typically played at various ages: choral games (ages 6-9); central-person games (until age 11); individual skill games (from age 10); and team games (from age 12).

Sutton-Smith's second book on this subject, *A History of Children's Play* (1981), considers in more detail the historical, social, economic, and ecological influences on children's play since British colonization of New Zealand in 1840.

The author again emphasized that the changes in play and games over time is more remarkable than the constancies (p. viii). For example, before 1890 children's play was generally rural in character and was unsupervised. Girls' play was formalized and decorous, while boys' play was vigorous and uncouth. After 1890, there was an increasing emphasis on the control of children by means of playgrounds, organized sports and physical education lessons. Girls' play became "liberated" from earlier social constraints, while boys became "tamed" by sports (pp. 137, 216).

Since 1920, children have become increasingly interested in playing with objects contrived by adults for commercial purposes, rather than with their own improvised play objects. By 1950, the fast-paced playground games reflected the
modern urbanized world, and the ball of the 20th century playground had replaced the knife of the 19th century playground. Children's play was much less turbulent and the playground in effect had become domesticated (pp. 272, 278).

Sutton-Smith's first published article is "The Meeting of Maori and European Cultures and Its Effects Upon Unorganized Play" (1951a). In this article, he compared "spontaneous" (as opposed to "organized") Maori children's games currently being played to (a) traditional Maori children's games (according to Best's 1925 account), and (b) Pakeha children's games. He found that Maori games had their counterparts in Pakeha children's games: "the tradition of the two cultures combined in such a way so that features of both were preserved in the ultimate product" (p. 95). He illustrated his finding with a detailed description of the game knucklebones, the development of which was parallel in both cultures. Sutton-Smith also described other current Maori games and Maori games adopted by Pakeha children.

After relocating in America, Sutton-Smith wrote an article on "The Kissing Games of Ohio Adolescents" (1959c), and collaborated with B. G. Rosenberg on "Sixty Years of Historical Change in Game Preferences of American Children" (1961). This later article compared the results of four unrelated large-scale studies conducted in 1896, 1898, 1921,
and 1959. By comparing game preferences over time and according to gender, the authors found a recent trend toward an increasing similarity of game preferences for boys and girls. Girls in particular had incorporated an increasing number of "masculine" games into their play, and boys had been steadily lowering their preferences for games having anything to do with girls' play. In addition, children of both sexes seemed to increasingly prefer informal group activities, which led the authors to suggest that formal games are vestiges of an earlier and more hierarchically arranged society, and in time may become anachronistic (Sutton-Smith & Rosenberg, 1961, p.49).

Summary

The study of children's play began in the late 19th century when notions of unilineal stages, cultural survivals, and recapitulation were fashionable. Collectors of Western children's games and rhymes (e.g., Newell; Gomme) usually interpreted these activities as survivals, in childish forms, of earlier societies' adult activities.

Evolutionary theory fell into disfavor among anthropologists in the early 20th century (until its reappearance in the mid-1900's). However, in psychology, G. S. Hall's recapitulation theory, which argued that the play stages
of children recapitulated the history of the human race, influenced subsequent developmental theorists (e.g., Freud; Erikson; Piaget). In particular, Piaget's stages of cognitive development and play behavior have been widely utilized in psychological studies of children and play.

In the late 19th and early 20th centuries, researchers began to emphasize the need for detailed collections of game texts because they believed these games (like "primitive" cultures) would soon disappear. These researchers often used adult recollections in order to learn about the nonacculturated games of a society's past (e.g., Dorsey). Occasionally, (in addition to interpreting games as survivals), some researchers used games as evidence for or against particular patterns of diffusion (e.g., Tylor; Culin; Brewster).

Generally, only formal, rule-governed games and rhymes were recorded, and seldom were contextual variables considered, such as a player's age or gender and the physical or social setting of the game. Researchers usually did not interpret their data, but rather organized them according to their own classification schemata based on structural features of the games or play activities.

The tradition of collecting and classifying game texts has persisted into recent decades (e.g., Howard; Opie & Opie; Sutton-Smith). This tradition has been important in
the history of children's play despite the narrow focus on play (as games) and the neglect of contextual variables. As Helen Schwartzman has pointed out, "these investigators persevered and often excelled in their preservation during an era when most researchers would have nothing to do with a topic so obviously inconsequential as that of children's play" (1978, p. 97).
Studies of Children's Play from the Perspective of Functionalism

Introduction

In the 1920's some anthropologists began to criticize the overly-inductive, atheoretical research of the historical particularists and diffusionists. Anthropologists such as A. R. Radcliff-Brown and Bronislaw Malinowski searched for generalizations or laws of social behavior. Conceptualizing culture as a biological organism (as did early evolutionists in formulating stages of cultural growth), these researchers focused on how parts or structures of a society functioned to maintain the unity or sameness of the whole culture (Schwartzman, 1978, p. 99).

Researchers who adopted Radcliff-Brown's structural-functionalism, (which de-emphasized individual psychological needs and only considered "serious" social systems), generally did not consider children and play in their investigations (Schwartzman, 1978, p. 102). However, Malinowski's (e.g., 1944) interpretation of children's play as imitative of, and as preparation for, adult economic activities, represented the typical functional explanation of play behavior. According to Helen Schwartzman:

the assumption that children's play is always based on imitation of adult activities and, therefore,
either implicitly or explicitly functions as a socializing activity is far and away the most common anthropological interpretation of this behavior. (1978, p. 101)

From the 1930's through the 1950's, when structural-functionalism was the most widely adopted theoretical perspective, ethnographic investigations which mentioned children's play did so only briefly. These reports typically described the social contexts of imitative play activities and listed them (e.g., Kenyatta, 1939; Edel, 1957). These descriptions usually did not include the texts of the play events (Schwartzman, 1978, p. 133).

The following description typifies the functionalist treatment of a play episode:

Like children everywhere, Pygmy children love to imitate their adult idols. . . . at an early age boys and girls are "playing house" or "playing hunting" . . . And one day they find that the games they have been playing are not games any longer, but the real thing for they become adults. (Turnbull, 1961, p. 129)

However, despite this lack of interest in children's play, researchers challenged the traditional view of play as a frivolous and useless activity by assigning a socializing function to this behavior (Schwartzman, 1978, p. 133).

More recent functional studies of children's play describe play as a vehicle for: (a) socialization (or acculturation); (b) learning and practicing sex roles; (c) learning and practicing power or leadership roles;
and, (d) enhancing creative, intellectual and social skills.

There are also some studies which question the imitative character and socializing function of children's play by focusing on play's satirical and innovative qualities. These studies reflect current criticism that the structural-functional perspective is unable to account for change, deviance, and novelty in a cultural system (Schwartzman, 1978, p. 134).

**Early Functional Studies of Children's Play**

**Karl Groos**

Karl Groos (1898, 1901), who was perhaps the first person to examine in considerable detail all the varieties of play in animals and in man, provided one of the earliest functional explanations for this behavior (Singer, 1973, p. 9). Groos, a professor of philosophy and biology, was influenced by the prevailing notions of evolutionary theory, and his theoretical definition of play was summed up in one source as "the impulse to practice incomplete hereditary instincts. Through play crude instincts are practiced and honed for the struggle to survive" (Levy, 1978, p. 81). Play, therefore, would serve the child in later years because it involves learning about social interactions, mastering physical skills, and
developing imagery or symbolic capabilities.

In *The Play of Man* (1901), Groos discussed at length the playful experimentation of the "sensory apparatus," and "higher mental powers." He also elaborated on fighting play, love play, imitative play and social play, all of which are regarded by Groos as the playful exercise of impulses of the "second or socionomic order."

In his closing discussion of play theory, Groos expressed his view on play and instincts:

> From a biological standpoint, too, imitative play is an important agent in supplementing instincts, usually rendering them more plastic and thus further the opening of new paths for the development of intelligence. . . . my own view is that there is no general impulse to play, but various instincts are called upon when there is no occasion for their serious preparatory practice, and these instincts thus become special plays. (1901, pp. 376-377)

George Herbert Mead

*Mind, Self and Society* (1934) by sociologist George Herbert Mead is an early analysis of children's play from a functionalist perspective. Mead, who is regarded as an early interactionist, was interested in childhood socialization experiences, specifically the emergence and growth of self-awareness and self-consciousness in childhood. It is important to note that interactionists view growth not only in strict developmental terms of
physical and mental age stages, but also in terms of interactional age, which takes into account the number of interactions a child has had with a specific unit of behavior (Denzin, 1977, p. 162).

In this work, Mead stressed three phases of selfhood: (a) the anticipatory or play stage; (b) the game stage, and (c) the generalized other stage. In the first phase, the child learns to differentiate self from other. In the next phase the child learns to regard game rules not as invariant, but rather as constructed. In the final phase the child learns to take the perspective of the generalized group of fellow selves.

Mead separated the function of games from the function of unstructured or "ordinary" play. Thus, when the child imagines and acts out various social roles in ordinary play (e.g., playing house), his or her sense of self as an individual (i.e., his or her character) grows and develops. On the other hand, when the child participates in structured games (e.g., baseball), his or her social sense of self is enhanced because, through games, he or she learns to take on the attitude of others in order to reach a common goal.

Meyers Fortes
Meyers Fortes description of children's play in "Social and Psychological Aspects of Education in Taleland" (1932) is an exception to the simplistic functional interpretations of play activity. Fortes explained that three important learning processes for the Tallensi child of Ghana--mimesis, identification and cooperation--are intimately woven in play, which is "the paramount educational exercise of Tale children" (p. 475).

Through play, "a child rehearses his interests, skills, and obligations, and makes experiments in social living without having to pay the penalty for mistakes" (p. 475). Fortes went on to assert that:

"there is always a phase of play in the evolution of any schema preceding its full emergence into practical life. Play, therefore, is mimetic in content, and expresses the child's identifications. But the Tale child's play mimesis is never simple and mechanical reproduction; it is always imaginative construction based on the themes of adult life and of the life of slightly older children. He or she adapts natural objects and other materials, often with great ingenuity, which never occur in the adult activities copied, and rearranges adult functions to fit the specific logical affective configuration of play. (1932, p. 475)"

The article includes a unique and lengthy account of four children playing together for more than 30 minutes (pp. 476-477). This sensitive description shows how children ingeniously improvise play props for imaginative play episodes.

The article also describes developmental phases of
play behaviors for both boys and girls in relation to their economic duties and social interests. For example, up to the age of six or seven, most play consists of "sheer motor exuberance." Boys and girls like to imitate simpler features of older children's play, including tapping on toy drums, shooting reed arrows, or playing at grinding millet. During these years, play is usually egocentric.

Between the ages of six and ten, when children become responsible for performing economic duties (e.g., watching goats; scaring birds from the fields; running errands), play becomes more social and complex. Children participate in organized group games and dances, engage in more elaborate and protracted episodes of imaginative play, and become more skillful in arts and crafts (particularly toy-making).

Finally, as children are absorbed into the economic system and acquire a responsible status in the social structure, their childhood education is completed, which signals the end of childhood play.

Otto Raum

Otto Raum was another early critic of the "simple imitation" interpretation of play. In Chaga Childhood (1940),
Raum, who grew up among the Chaga in Tanzania, described their socialization patterns and provided a detailed account of children's games and play. For Raum, as for Meyers Fortes, children's play was much more than simple imitation of adult behaviors.

He characterized play activities as (a) the playful exercise of sensory and motor behaviors, (b) representative play, and (c) competitive games. Raum used the term "representative play" instead of "imitative play" because the imaginary adult society portrayed by children in their play was not an exact copy, but rather a caricature of adult activities. For example, children enjoyed playing school and teacher by placing a large sand clock in front of the pretend school and reading—in monotonous tones of the teacher—from vegetable-leaf books.

In addition to illustrating the varieties of playful activities, Raum included information on how leaders emerge in play groups, how resources are allocated within play groups, how cheaters are expelled, how secret languages are created, and how children ingeniously invent new toys and games.

Recent Functional Studies of Children's Play

Play as a Vehicle for the Socialization of Children
Rivka Eifermann. There have been a variety of recent attempts to study how play functions to socialize or to acculturate children, one of which is Rivka Eifermann's large-scale statistical analysis, "Cooperativeness and Egalitarianism in Kibbutz Children's Games" (1970). The author stated that "to the degree that games mirror, or serve as models of, real life situations, 'cooperative' and 'egalitarian' games should be more frequent in kibbutzim than in other environments" (p. 579).

To see whether or not this was actually the case, Eifermann analyzed data based on observations of unsupervised games played by children (ages 6-14) in two rural kibbutz schools and two rural moshav schools. The moshav is a family-based cooperative settlement in which economic equality is not maintained to the extent it is in a kibbutz.

Games were classified into eight categories representing various levels of competition and egalitarianism. The guidelines used for classifying games were: (a) competitiveness (i.e., whether a game is a "multiple party" or "single party" one); (b) grouping (i.e., whether each player competes for himself or all compete within a group); and (c) symmetry (i.e., whether players' roles are interchangeable or whether there are over- or under-privileged players).
Referring to her classification scheme, Eifermann formulated two major hypotheses regarding games in a society that stresses egalitarianism and cooperation:

I. Since kibbutz children are raised in the spirit of cooperation with the other members of the kibbutz, their games tend to be of the less competitive types.

II. Since kibbutz children are raised in the spirit of egalitarianism--one child, one vote in their children's societies--their games tend to be of the more symmetrical types. (Eifermann, 1970, p. 581)

From these hypotheses, Eifermann made eight specific predictions regarding the amount of participation by kibbutz and non-kibbutz players in the specific categories of games.

Most of the predictions were confirmed, thus supporting a theory of play as preparation. However, some results contradicted her predictions. It was found that kibbutz children rarely played "single-party" games, in which two players perform individually, yet simultaneously, to achieve a common goal (e.g., skipping or rhythm games). Also, group or team games, which likewise call for cooperation toward the achievement of a common aim, but in a competitive way, were more popular among kibbutz children than among moshav children. Thus, while kibbutz grammar school pupils are opposed to personal competition, they were competitive about group activities.

Eifermann also found that in "singleton" games,
where one player has special privileges or a different role than the other players (e.g., jump rope; hopscotch; hide-and-seek; tag), kibbutz children insisted much more than moshav children that there should be as few over- or under-privileged participants as possible. This, the author suggested, is one way kibbutz children preserve egalitarianism.

Michael Salter. Michael Salter also investigated play as an important aspect of the enculturation process in "Play: A Medium of Cultural Stability" (1974). He examined games of aboriginal children in Queensland and described how indigenous play activities reflect and reinforce cultural subsystems. For example, he argued that: (a) tree climbing and underwater endurance reflects and reinforces the economic system; (b) mud-ball fights and stick-duelling mirror and strengthen the political system; (c) play with dolls reinforces the normative order; and (d) string figures reflect the group's world view.

For Salter, as with Fortes and Raum, play is the most important form of learning for the aboriginal child. Since the Queensland aboriginal societies are egalitarian
and based on cooperation, Salter predicted (as did Eifermann) that play activities would be cooperative rather than competitive. He found that most games were group-oriented rather than team-oriented, and that little importance was attached to winning games. He concluded that play teaches and reinforces culturally appropriate behavior (Schwartzman, 1978, p. 108).

David Lancy. David Lancy conducted a series of studies of Liberian Kpelle children (e.g., 1975, 1977) and American children (e.g., 1975) in an attempt to validate the notion that play functions to enculturate and/or socialize children. His studies of the play of Kpelle adults and children collectively represent one of the few detailed analyses of this behavior in a non-Western society (Schwartzman, 1978, p. 109).

Lancy went into the field in the early 1970's with the hypothesis that play was the equivalent of an education system for the Kpelle. However, he explained:

Using a variety of techniques including controlled experiments, I was unable to demonstrate that any belief, concept, physical or cognitive skill is learned exclusively in play. On the other hand, I didn't find that play has no relationship to work. They are, to use a favorite anthropological term, "integrated." (1977, p. 87)

For example, children practice counting, mapping and projective geometry in many games, but these skills
are not exclusively learned in play. Parents teach their children to count and learn applied geometry from helping to lay out farm plots and fences, and helping to build houses. "It is very difficult, therefore, to separate out what is learned in game play from the skills acquired in watching, listening, and doing various tasks" (Lancy, 1977, p. 88).

An important integration of Kpelle children's play with adult work stressed by Lancy is the relation of stories and Kolong (a verbal game of paired phrases) to court disputes, which occur frequently and utilize oratorical and debating skills. Stories expose children to important underlying beliefs of the culture. Certain stories are told with dramatic gestures and other oratorical devices. One type of story has a debate built into it because the narrator has to defend his interpretation of the story against alternate explanations offered by audience members. Finally, in Kolong, the memorized response parts of the paired phrases are actually proverbs, which are later used in courts by adult litigants. These children's play activities therefore contribute to the knowledge and skills necessary for adult litigants to win court disputes.

In his 1977 article, Lancy also discussed the disruption and disappearance of some traditional Kpelle
playforms and concluded:

The bearers and practitioners of traditional Kpelle culture are declining in number and are confined more and more to those who are middle-aged or old . . . these older people then have become the repositories of a store of invaluable information on how to adapt successfully without outside assistance in what must be considered a marginal economic zone. To the extent that traditional playforms act to link the development of children to the technology of their parents, the loss of these playforms may indeed be disastrous. (p. 91)

Annette Rosentiel. "The Role of Traditional Games in the Process of Socialization Among the Motu of Papua New Guinea," by Annette Rosentiel (1977), examines Motu children's games as they were played prior to intensive European contact, which began in 1945. The author found that most organized play had stressed the development of physical skills needed for survival and social achievement.

For example, children learned to swim as infants, to build and sail miniature lakatoi and participate in water games such as paroparo ("little fish"). These activities helped to prepare children for participation in important annual trading expeditions to the Gulf of Papua. Similarly, playing cat's cradle (harikau) helped to teach the skills necessary for net-making.

As is typical of functional interpretations of play, Rosentiel argued that most children's games directly imitated the activities of adult life and functioned to
reinforce the status quo.

**Kim Storey.** Anthropologist Kim Storey (1977) studied children's games, imitation play and pastimes in a Balinese village and reported that these activities are important in the development of the Balinese child.

For instance, games in which one child plays against the rest of the group (e.g., keep away; monkey-in-the-middle), and games in which each child plays for himself or herself (e.g., hopscotch), are much more popular than team games. Since Balinese children are casteless until puberty, Storey proposed that these games offer children a chance to explore and prepare for positions they will someday assume in the adult social order.

Similarly, Storey found that imitative play increased in duration and frequency during times of festivity. This type of play, according to the author, enables children to rehearse aspects of performances in which they are likely to participate as adults (e.g., dances; puppets; cremation; dramas; cockfights).

**Lynn Price Ager.** Lynn Price Ager (1977), who spent eight months in Tununak, an Eskimo village on Nelson Island, found support for the hypothesis that important cultural values are reflected in children's games. Among
her findings are the following:

1. The types of games traditionally played by Eskimo children (i.e., games of physical skill, dexterity, or memory) express the traditional hunting complex which requires individual initiative, memory and physical strength.

2. The attitudes of Eskimo children in their games (i.e., pleasurable competition; absence of humiliation for the loser; humor enveloping game-playing) reflects the cultural value placed on individuality and self-reliance without disrupting group solidarity.

3. The players' careless attitudes towards game equipment and the minimal emphasis on prizes in competitions reflect the general lack of emphasis on material possessions.

4. Finally, increasing interest in games of strategy may be related to new values associated with competence in the complex modern world.

**Karl G. Heider.** Karl Heider (1977) recently discussed the results of an attempt by the Indonesian government to acculturate the Dani of highland New Guinea. As part of this ploy, a Javanese game, "Flip-the-Stick," was introduced to Dani children by their Javanese teachers. However, "Instead of the game transforming the Dani into Javanese, the Dani translated the game into Dani" (p. 72).
The author described how the changes made in the game reflected the Dani culture. For example, in an otherwise competitive team game, Dani children play flip-the-stick in a relaxed and non-competitive way.

Also, scoring is an important part of the game. However, although the Dani shout out number words, they are not used for counting and are often called out in random order. Heider pointed out that there are no Dani number words beyond "four," and the general lack of concern about scoring reflects a general lack of concern for quantification.

Finally, Dani casualness and flexibility is reflected in (a) the relaxed way of playing, (b) the playing of several simultaneous games in overlapping spaces, and (c) the casual observance of the rules.

Andrew Miracle. In "Some Functions of Aymara Games and Play," Andrew Miracle (1977) explored the socialization process evidenced in the games and play of Aymara children. He found that play and games function to socialize children in three general ways:

1. Play reinforces the adult/non-adult dichotomy. Children become adults when they no longer need to play and adults try to discourage children's play whenever possible.
2. Play and games teach children some skills necessary for adult life. Through play children learn agricultural skills, basic marketing practices, animal husbandry, boat building and so on.

3. Play and games prepare children for participation in adult roles by teaching cooperation and providing for patterned interaction among peers.

Sutton-Smith (1979) expanded Miracle's interpretation of the socializing aspect of Aymara play by explaining that Aymara children are really being socialized towards a kind of furtiveness, since they secretly manage to play despite parental efforts to discourage this behavior:

The Aymara, who have persisted for thousands of years under rule by Incas, Spaniards, and others, have a strong internal life capacity for maintaining an external face which is static and obedient, without yeilding any internal resources. Children's play socializes this habit. (pp. 213-214)

Christine Emilie Robinson. Recently, Christine Emilie Robinson (1978) considered the relationship of the play of Vietnamese refugee children attending several California schools to the learning of American linguistic and social codes. Based on her observations, Robinson found that Vietnamese boys were gaining a deeper understanding of American culture than Vietnamese girls. Girls appeared to be at a disadvantage because they avoided both
spontaneous play and rule-governed play with American girls, and therefore needed to be socialized into American culture through the more formal channels of schooling and adults.

However, Vietnamese boys, who freely join in games with their American peers, were learning American cultural rules through their play. Furthermore, Robinson predicted that boys eventually may go beyond adhering strictly to the rules of the games, to being able to play with those rules. This would help them adapt to changes in American society.

Play as a Vehicle for Gender Identity and Practicing Sex Roles

Introduction. Ethnographic evidence has suggested sex differences in the behavior of children, with boys reported as acting more assertive, aggressive and self-reliant than girls, and girls reported as acting more nurturant and obedient than boys. Many researchers have proposed that certain cultural conditions (e.g., sexual division of labor; differential task assignment for boys and girls; differential sex role socialization), rather than biological features, are responsible for these differences (Schwartzman, 1978, pp. 110-111).

How children's play reveals gender identity and how
play functions for learning and practicing culturally appropriate sex roles, are questions that have been investigated by a number of psychologists, sociologists and anthropologists. Psychologists in particular are primarily concerned with play as an indicator of sex-role identity, and have generally utilized techniques involving doll-playing or toy-preference tests in their investigations. Schwartzman commented that "the psychologists' preoccupation with toy tests probably reflects the object orientation of Western adults as much as it does the sex-role identification of their children" (1978, p. 112).

**Erik Erikson.** A well known example of this type of research is the work of Erik Erikson (e.g., 1951) which examined "play configurations." For this investigation, boys and girls (age 11) were asked to use toys to construct a scene for a "movie." Erikson found that boys consistently constructed outdoor street scenes and paid special attention to building up (and knocking down) tall structures. Girls, on the other hand, used the toys to make settings of house interiors and were primarily concerned with the arrangement of furniture and people within the interiors. Applying his psychosexual theory of development, Erikson interpreted the "high-low" concern of boys and the "open-closed" configurations by girls as unconscious reflections
of biological sex differences and social sexual role differences.

**Brian Sutton-Smith and M. Savasta.** Studies of sociodramatic play or role play (as opposed to object play) examine what children actually do in free play and games. These investigations tend to treat play as both generative, as well as expressive, of sex differences (Schwartzman, 1979, p. 112).

One such study was conducted by Sutton-Smith and Savasta (1972), who videotaped the play of 12 nursery school children to test their prediction that sex differences in the play behavior of these children would not be very pronounced. They based their prediction on the fact that both parents of each subject worked outside the home.

The investigators found their prediction to be basically true, but they observed that boys were more physically, verbally and strategically aggressive and assertive than girls when defining a place within the group. The girls were much more passive, and were assertive in a teasing way. They typically engaged in "inclusion-exclusion social testing" with smiles and gift-giving. Furthermore, when girls initiated play with boys, they broke away from their own roles and took on
some of the assertive tactics characteristic of the boys. The resulting style of play was often chaotic and disorderly.

The authors suggested that boys might be exploring power roles relevant to large gang-type groups, such as dominance hierarchies. The power tactics employed by girls seemed to be relevant to smaller, nuclear groups. It was concluded that if there are sex differences in the learning of and experimentation with power tactics, future research should focus on how young children learn these differences from their parents (cited in Schwartzman, 1978, pp. 113-114).

S. Goldberg and M. Lewis. Psychologists Goldberg and Lewis (1969) investigated early sex-role learning. They observed marked sex differences in the free play behavior of a group of American infants (13 months) with their mothers. The researchers found that infant girls (a) played quietly with their toys, (b) were extremely reluctant to leave their mothers' laps, and (c) cried for assistance to get around a barrier which had been placed between them and their mothers.

On the other hand, infant boys (a) played vigorously with their toys, (b) wandered away from their mothers to play, and (c) explored ways to get around the test barrier to reach their mothers.

Previous observations of these infants (6 months)
with their mothers, had revealed that the mothers actually behaved differently with boys than with girls. This most likely reinforced the sex-typed behavior of their children at an early age.

**Esther Blank Greif.** In "Sex Role Playing in Pre-School Children," Esther Greif (1974) underscored the belief that "because of the pervasiveness of sex role distinctions within a society, an understanding of sex role acquisition and development in children is essential for a theory of socialization" (p. 385).

Accordingly, Greif conducted a controlled observational study of the free play activities of 24 American children (ages 3½-5½ years) from white, middle-class families. Among her findings were the following:

1. Pairs of children in the free play setting spontaneously engaged in imaginative role play, including the use of sex roles. Young children therefore possess the requisite knowledge and skills for role play, and are eager to use them.

2. Children usually adopt sex-appropriate roles in role playing, regardless of the sex of their playmates. This indicates that sex role patterns are acquired and practiced at an early age.

3. Older children (ages 4½-5½) displayed significantly
more sex role play then younger children. Thus, "whereas younger children would simply 'cook' some food and then 'eat' it, among older children the little girl might 'cook' supper for her 'husband while playing the role of 'wife'" (p. 389).

4. Most role reversals (i.e., exceptions to sex-appropriate role playing) involved little girls who wanted to play male roles. In one case,

an agressive five-year-old girl persisted in labelling her male playmate 'mother'. He was quite upset, and kept protesting that he wasn't mother, but was father. His playmate reluctantly relinquished the role of father only when he threatened to tell on her if she continued calling him mother! (p. 390)

Greif suggested that the pattern of exceptions seems to indicate that the male role was more desirable, "a finding in keeping with the general view that male roles have more status" (p. 390).

Marsha B. Liss. Social and Cognitive Skills: Sex Roles and Children's Play, edited by Marsha Liss (1983), reviews much of the psychological literature on play and sex role development, as well as presents a number of recent investigations which utilize a variety of theoretical perspectives (e.g., cognitive; behavioral; social learning), research paradigms (e.g., laboratory; naturalistic open classroom observations), and subject population ages
(from early preschool through late grade school).

While theories of sociobiology and psychoanalysis support the importance of biological factors, psychologists from learning theory and feminist approaches, (as well as anthropologists), look to the environment as the major determinant of sex roles (Birns & Sternglanz, 1983, p. 237). Based on this perspective, the thesis of this book is:

Choosing certain toys and play activities may foster the development of certain cognitive and social skills that lead to further differentiation of the behaviors of girls and boys in adolescence and into adulthood. (Etaugh, 1983, p. 1)

Chapters cover topics such as: influences of environmental factors on sex differences in children's play; the significance of sex-typed toy choices; gender differences in social fantasy play; social consequences of play styles for boys and girls; the relations between activity structure and play, and its implications for socialization; sex differences in children's preschool classroom play; and, gender-related skills learned through play.

The general conclusions drawn from the findings presented on these topics are:

1. Children's play is a rich source of data about the origins and development of sex differences in young children's behavior.

2. To an important degree, the activities or toys a child encounters determine the quality of play. It may be
that the "sex" of the toy rather than the sex of the child determines the quality and quantity of play. For example, for both sexes, dolls evoke conversation and minimal use of space, while cars and trains evoke vigorous play.

3. "Female" play activities, such as childrearing and homemaking, vary little over decades. However, some of the traditionally male toys have changed dramatically, reflecting technological changes. It would seem our society is still preparing men for careers and women for domestic activities and/or low-pay and preparation jobs (Birns & Sternglanz, 1983, pp. 246-247).

**Conclusion.** In these studies, as well as in most ethnographies with information on children, children are described as participating in culturally defined, sex-appropriate roles in their play. Schwartzman (1978) pointed out that this is not surprising since children first encounter the culturally defined and usually sex-typed roles and activities of their caretakers. However, "most investigators have not studied children's play with sex roles but rather how sex roles play children" (p. 113). She suggested that researchers focus on the various ways children comment on adult behavior (e.g., parody; exaggeration), particularly that of mothers and fathers (p. 115).
Play as a Vehicle for Learning about Status Positions and
for Practicing Power Roles

Paul Gump and Brian Sutton-Smith. There are a number
of studies investigating types of role and status positions
within specific games, and the relationships between these
roles and the larger social context. In "The 'It' Role in
Children's Games," Gump and Sutton-Smith (1955b) classified
rule games on the basis of: (a) types of status positions
they contain, such as leader-follower, attacker-defender,
and taunter-taunted; and (b) the methods determining these
positions, such as leader chosen by popularity, chance,
defeat or triumph. The authors then applied this
classification to a variety of games and suggested that
power roles, particularly the "It" role in tag games,
provided opportunities for practice in handling such
positions.

Power in It games is determined by whether or not the
player who is It is able to chose when, where, and which
opponents play in each competitive encounter during a game.
The authors found that high-powered It roles, as opposed
to low-powered ones, lead to less failure for the It player,
fewer negative responses of the playing group toward the
It player, and to a more positive feeling of the player about
himself and his situation as a central person pitted against
the rest of the group.

Brian Sutton-Smith (1966b). Other related studies include another article by Sutton-Smith (1966b) which suggested that status positions in play and games varies according to player's ordinal position with respect to his or her siblings. He found that firstborn children were dominant in their relations with their siblings, thus preserving their status in the family hierarchy. Firstborn children also prefer equal or lower power positions when playing with peers, which replicates the dependent and conforming relationship they have with their parents. In contrast, laterborn children show low power in relations to older siblings, but high power in their play relations with peers. This is a manifestation of the power they seek but cannot obtain with their older siblings.

Brian Sutton-Smith and John Roberts. "Cross-Cultural and Psychological Study of Games," by Sutton-Smith and Roberts (1970), is one of a series of articles about the cross-cultural and psychological correlates of games. This research led to the formulation that games, in part, are models of power. Games model ways of succeeding over others by magical powers (as in games of chance), by force
(as in games of physical skill), or by cleverness (as in games of strategy).

In American society, games of physical skill are the "power forms" preferred by boys and men. Games of strategy and chance are the "lesser power forms" available to and preferred by girls and women. It was also found that persons of higher social status prefer games of strategy and physical skill, while lower status persons prefer games of chance.

The authors concluded that "in games children learn all those necessary arts of trickery, deception, harassment, divination and foul play that their teachers won't teach them, but are most important in successful human interrelationships in marriage, business and war" (p. 339).

Christine von Glascoe. Leadership selection, leadership performance, and the players' control over the unfair exercise of authority are discussed by Christine von Glascoe in "The Work of Playing 'Redlight'" (1980). In this particular game:

the winning player is both agile and responsive to the director's "go/no-go" commands. .."Redlight" displays the manner in which the means of access to the exercise of power over other persons is presumed to be coordinate with the subsequent exercise of that power. Such play provides the player with the opportunity of investigating this relationship of the correlation between the quality of pre- and post-selection behavior of a power figure (p. 229).
However, during the course of the game disputes often arise between the players and the director concerning whether or not the director had observed some player moving during the "no-go" condition. At this point, a substituted game occurs in which players explore rational arguments as a means of controlling the director from erring towards his or her own self-interest. These arguments are based on intentionality, fate and goal-directedness of acts. For example, a summary of the player's response to the director's accusation of illegal movement might be: "I didn't move, and if I did it wasn't goal-directed, and if it wasn't goal-directed it wasn't intentional; and if it was goal-directed and intentional, you didn't see me" (p. 230).

The investigator emphasized that the game provides a context for exploring power and authority roles, which are not available to the child in real life. In everyday life, the child is not allowed to exercise control over anyone who exercises control over him or her, such as a teacher or parent. Redlight, however, gives the child a chance to control, evaluate and punish others' behavior. Also unlike everyday life, the power/no power relation between players is fleeting, since the transition from player to director takes only about ten minutes and occurs over and over again during the course of the game.
In the conclusion, von Glascoe noted that in Redlight the "potential for addressing the nature of the relationship between access to power and its exercise, and the ex post facto social control of power in its abuse" are precisely the reasons that children continue to play the game even after discovering the algorithm that exists for playing it (p. 231). Usually, according to Roberts, Arth and Bush (1959) and Rapoport (1966), children lose interest in a game when they learn that an algorithm exists for playing that particular game.

**Brian Sutton-Smith (1983).** A final example of the function of games in the learning and practicing of power roles is in Sutton-Smith's article, "Play Theory and Cruel Play of the Nineteenth Century" (1983). In this article, Sutton-Smith discussed how a great deal of the play of New Zealand children in the late 19th century was preoccupied with negotiations and power struggles. During those years, teachers were usually very harsh, even brutal, towards their students. The play of children at this time could only be thought of as freedom from adult oppression, yet in play, "one gives up one set of masters for another: One gives up teachers and parents for one's peers who are equally ruthless and dominating" (p. 104).

Most schools had "fighting pits" where both spontaneous
and arranged individual and group (or gang) fighting regularly took place. Younger and "less virile" members of the playground were often terrorized by those stronger than themselves in these fights. Furthermore, initiation ceremonies for children new to the school or gang made clear the peer dominance order on the playground. Usually these initiation ceremonies involved "forbidden parts of the body" (e.g., "we peed in his cap") (p. 108).

Sutton-Smith also cited the works of Iona and Peter Opie (1969), Andy Sluckin (1981), and Mary and Herbert Knapp (1976) which similarly report (in over two-thirds of each of these accounts) that much of what is called children's play is occupied by struggles for power.

Imaginative Play Socializes Children by Enhancing Creative, Intellectual and Social Skills

Introduction. Some recent studies have examined the relationship between children's imaginative play and culture by exploring the impact that sociocultural context has on children's capacities to engage in imaginative play. These studies implicitly or explicitly assume that make-believe (or sociodramatic) play serves a socializing function by stimulating creativity, intellectual growth and social skills, all of which are necessary for getting
along in a complex modern world (Schwartzman, 1978, p. 116).

Studies of sociodramatic play have sparked controversy. Some researchers have found certain groups of children to be "deficient" in this type of play and have conducted play training studies in which adults model sociodramatic play for children. Some of the issues arising from these studies include:

1. Are children from certain cultures and/or socioeconomic levels more or less deficient in imaginative play behavior?

2. Does play training provide any lasting benefits for children?

3. Is imagination the same in all cultures?

Sara Smilansky. *The Effects of Sociodramatic Play on Disadvantaged Preschool Children* by Sara Smilansky (1968) was the first large-scale play training study. Smilansky suggested that make-believe play is a "technique by which the child's limitations can be overcome and by which a richer reproduction of adult life is made possible" (p. 7). Furthermore, "the activation of resources in the sociodramatic play situation stimulates emotional, social and intellectual development which is highly beneficial for the child's success in school" (p. 12).

In this study, Smilansky contrasted the play of
Israeli preschool children from middle and upper sociocultural backgrounds with children from lower sociocultural backgrounds. The latter group consisted primarily of children of immigrants from Middle Eastern and North African countries.

The quality of imaginative play was determined by the presence or absence of six criteria: (a) imitative role play; (b) make-believe in regard to objects; (c) make-believe in regard to actions and situations; (d) persistence; (e) interaction; and (f) verbal communication. The first four factors are elements of dramatic play, while sociodramatic play additionally requires the last two elements, which are necessary for the imaginative elaboration of a play theme.

Based on her observations, Smilansky concluded that disadvantaged children engaged in sociodramatic play much less frequently and with less ability than their advantaged peers. Since she believed that the ability to play imaginatively is necessary for success in school (and in the modern world), Smilansky conducted an experimental study to determine the best ways to train disadvantaged children to engage in this type of play.

The results of this part of her investigation revealed significant increases in the quantity and quality of imaginative play when it was modeled for children by
adults in an enriched school environment. Smilansky (1971) obtained similar results when she duplicated this research with disadvantaged children in Ohio and in Chicago.

**D. El'Konin.** Smilansky's findings lend support to the view of El'Konin (1971) that adults play a determining role in children's play. In his study of Russian nursery school children, El'Konin suggested that children's play is entirely imitative of adult behavior. What appears to be imaginative play, he claimed, has been previously modeled or suggested by an adult. Thus, when children imaginatively play with ordinary objects, El'Konin observed that:

if you know the "history" of the use of this brick, stick, or pebble in previous play, the illusion of independence disappears. It becomes clear that this is a name acquired from adults and forgotten with time. Observations that follow the play of a child day after day confirm this. (p.225)

For example, "a stick which a child calls a thermometer was given to her shortly before by the teacher for a plaything and she called it a thermometer several times" (p. 225).

**Brian Sutton-Smith (1972c).** Based in part on the research of Smilansky and El'Konin, Sutton-Smith (1972c) protested the widely held assumption that all forms of
games and play are universal. He proposed that there are two broad cultures of games, namely, "ascriptive game cultures" and "achievement game cultures."

Ascriptive game cultures are typified by societies with (a) extended families, (b) group domination by the arbitrary power and control of its leading individuals, and (c) a lack of clear separation of children from the surrounding adult community. In these groups, children imitate adults in their play, but they do not play imaginatively. They also prefer ritualized games with hierarchial relationships involving a powerful and aggressive central person.

Achievement game cultures (a) are typically found in the middle class of Western societies, (b) are characterized by nuclear families, and (c) separate children from adult life. In these groups children play imaginatively and in an egalitarian style, placing less emphasis on aggression and ritualized games.

Dina Feitelson and G. S. Ross. There have been a number of recent experimental investigations reporting both cultural and class differences in the quantity and quality of children's imaginative play (e.g., Freyberg, 1973; Singer, 1973; Lovinger, 1974; Rosen, 1974; Burns and Brainerd, 1979). Following Smilansky's pioneering
work, many of these studies have assessed the effects of play training on low-income American preschool or kindergarten children upon aspects of intellectual and social skills. The results of most of the studies show measurable positive effects from imaginative play training.

For example, Feitelson and Ross (1973) found low levels of thematic play in a group of white lower-middle-class kindergarten children in Boston. Play tutoring, particularly adult modeling of thematic play, produced significant increases in this type of play for these children, and improved their performances on measures of creativity.

Based on this research, as well as that of Smilansky, El'Konin, and earlier research by Feitelson (1959) with Kurdish Jews in Israel, Feitelson and Ross concluded that imaginative play does not develop spontaneously in all children. If these children are to achieve success in the use of symbolic materials of the everyday classroom and are to step into the modern world, they must be taught to engage in imaginative activities, according to these researchers.

Shlomo Ariel and Irene Sever. Ariel and Sever (1980) also have examined the relationship between imaginative play and culture. They compared and contrasted the pretend
play of three groups of children living in Israel: (a) Bedouin Arabs living in the Sinai desert; (b) urbanized Bedouins living near Haifa; and (c) Kibbutz children. The researchers wished to determine how and to what extent urbanization, modernization and formal education have affected the spontaneous play of children from a "traditional" society.

Ariel and Sever observed verbal and non-verbal play behaviors of five- to six-year-old children in each group and scored the behaviors on dimensions of "color," "dynamity," and play theme. The dimension of dynamity refers to the quality (dynamic or static) of the child's system of rules regarding possession, territory, participation and conflict resolution.

Color variables indicate whether make-believe play is lively, flexible and imaginative, or dull, rigid and repetitive. These variables measure a child's ability to: (a) hold a sustained interaction; (b) preplan a theme before playing; (c) create elements centering around a single theme; (d) use content elements drawn from outside the child's immediate sphere of experience; (e) assign roles that are different from conventional roles; and (f) use verbal signifiers (e.g., a child shatters a block-construction and cries out "an explosion!") (p. 167).

Contrary to their expectations, the researchers found
that both Sahara and urban Bedouins scored similarly. They had little color and dynamity in their play, and usually played around a single theme (motor vehicles). Kibbutz children, on the other hand, exhibited colorful and dynamic play and incorporated a variety of themes in the make-believe play.

These results indicated that culture "survives drastic changes in the environment and continues serving as a decisive factor in cognition and behavior many years after such changes" (p. 165). The authors also suggested that the observed differences were most likely due to the socializing practices of adults—Kibbutz children have close, informal and highly verbal relationships with adults, while Bedouin children have more formal, rigid and passive relationships with adults.

James Christie. In his 1982 article, psychologist James Christie reviewed the evidence for and against the value of play training. Some of the researchers who did not find play deficiencies among low socio-economic-status (SES) children include McLloyd (1980), Stern (1976) and Saltz and Johnson (1974).

Christie believed that the contradictory results in part may be due to the influences on children's behavior of the research settings (which are usually laboratories.
or classrooms), and the negative attitudes many parents and teachers have about children's play, particularly fantasy play.

He proposed the following recommendations:

1. Detailed systematic observations of children's free play behavior, especially in home and neighborhood environments, are needed before determining if certain children are underdeveloped in their imaginative play.

2. Future research should use a longitudinal design to determine if play training provides long term gains in social and cognitive performances.

3. Play training studies need to carefully control the amount and quality of adult interaction. A recent study by Burns and Brainerd (1979) indicated that it was the adult interaction with the children during play training, and not the play event itself, that produced the learning effects.

_Helen Schwartzman_. In her book, Helen Schwartzman (1978) challenged the play training school of thought by arguing that, contrary to statements by Feitelson and Ross (1973), the accumulating ethnographic evidence does not support the view that "children in 'rural communities' do not engage in thematic play because this activity is not modeled for them by adults or because
sufficient 'play props' and play spaces are not available" (Schwartzman, 1978, p. 119). Even though this behavior has not been systematically studied by ethnographers, the reports of children's ingenuity in creating thematic play events indicate that this is a well-developed play form in many non-Western cultures. Some of the cultures in which children's imaginative role play has been said to occur include the Chaga of Tanzania (Raum, 1940), the Taira of Okinawa (Maretzki and Maretzki, 1963), and the Tarong of the Philippines (Nydegger and Nydegger, 1963).

Furthermore, the associations made by researchers between imaginative play and particular cognitive and social skills (e.g., concentration; perspective-taking; verbal communication; attention span) may indeed be valid, "but they encourage the researcher to neglect the investigation of alternative expressions of imagination or creativity, which lower class children may display" (p. 120). Schwartzman also argued:

Since middle-class children are, on the whole, more successful at playing the "school game" (Smilansky's terms) than lower-class children, it may be that teaching them to engage in a middle-class form of play will improve their performance in school. Unfortunately, this view leads investigators not only to assume that lower-class children are deficient in the style of play in which middle-class children excel, but also to assume that these children are generally deficient in imaginative abilities and related cognitive, verbal and social skills. (p. 121)
In addition to recommending that researchers conduct investigations of imaginative play in contexts other than schools and laboratories, such as in homes or on playgrounds, Schwartzman emphasized that children who are properly socialized into their culture can no more be play deficient than (as suggested by Labov, 1972) language deficient.

**Brian Sutton-Smith (1982).** In "Paradigms of Pretense" (1982) Sutton-Smith used Schwartzman's debate with Feitelson over the meaning of pretense as a stepping stone to discussing the importance of contextualizing imagination. "It is probably not desirable, as we psychologists usually do, to consider pretense separately from the cultural contexts of which it is a part" (p. 76). And although Schwartzman's evidence for her case was anecdotal, Sutton-Smith believed that her intuitions have some point. "Essentially she is implying that imagination needs to be thought of as a function of communication" (p. 77).

Central to his re-examination of the meaning of pretense (or imagination) is the work of Scollon and Scollon (1979, 1980) on literacy, because what they say about literacy in Western society underlies what researchers of play usually are saying about pretense.

According to the Scollons, literacy develops through time as language becomes decontextualized from the domain
of speaking and is transformed into a unimodal visual display. A fact often obscured is that literacy is the result of early and continual learning and is "not something that develops in the natural course of maturation" (p. 77). The decontextualization necessary for literacy requires that the information structure shift toward a high degree of explicitness and that both the audience and author become fictionalized.

According to Sutton-Smith, researchers have cast play into a literary ludic paradigm:

When a child can tell stories she can gain a kind of decontextualized control of language. . . we also train children in this way. Instead of the narratives which subserve distancing in literacy, in play we substitute a curriculum of toys which subserve distancing in the ludic realm. This age-graded curriculum of toys. . . increasingly gives the child a microcosmic control of the world totally distanced from the everyday world, yet constantly referring to it. . . we in psychology have unwittingly cast our ideas within a literary paradigm of communication. . . [and] discuss play as if it is a solitary affair between a player and his toys or imaginings. (p. 78)

Is there, then, a more contextualized kind of pretense? To answer that question, Sutton-Smith contrasted a literary imagination with an oral one by examining stories told by middle-class white children and rural southern black children. The former group of children almost always told impersonal, third-person narratives, whereas the latter group of children usually told personal
narratives. Perhaps one reason for this difference is that in oral cultures, children often are "talked at" by adults, and are expected to conform to life in a group. Therefore:

Does the relative ignoring of the child... typical of some oral cultures, lead to that very "dumbness" [of children] before adults, until such time as the occasional child can force him or herself to a position of commanding and rhetorical leadership? Is there no imagination in these children as so often has been asserted recently, or is it merely of the rhetorical kind and covertly waiting for expression? (p. 83)

Udwin's work in South Africa strongly suggests that this is indeed the case (Udwin & Shmukler, 1981). In this study, a factor analysis of imaginative play variables indicated two major factors--"covert fantasy" and "expressive acting out." The authors contended that the lower-class children who appeared to lack imaginative play, actually only lacked the play techniques. In this sense, they had covert fantasy but not the expressive fantasy.

Perhaps, Sutton-Smith suggested, there are other ways to educate children of the oral or performance tradition. Rather than the individualistic, child-centered approaches usually adopted, their "imaginative life" may be better released in "play which is of a collective nature, which reaffirms the cultural values of the group of which it is a part, and which allows for individual enactive behavior within that context" (p. 84).
Studies Challenging the Structural-Functional Interpretation of Children's Play

Introduction

In addition to Meyers Fortes' (1938) insightful observations which showed Tallensi children's play to be more than simple imitation, and Otto Raum's (1940) description of how Chaga children's play often caricatured adults, there are some recent studies which challenge the prevailing structural-functional interpretations of children's play. These reports find novelty, satire and inversions of the social order in children's play and games.

Brian Sutton-Smith

Sutton-Smith (1972b, 1974) recently examined symbolic reversals and inversions within the structure of certain children's games in both Western and non-Western cultures. These "games of order and disorder" often model the social the social system only to destroy it. They also mock conventional power roles and provide unconventional access to such roles: "They model equality of turn taking, where life does not" (1974, p. 227).

Games of order and disorder consist of increasingly complex stages of development for children from age four
through age fourteen: (a) games in which all act in
concert and then collapse (e.g., Ring-a-Ring-a-Roses);
(b) one or more of the players has a central role in
bringing about the collapse by his or her absurd mimicry,
causing the others to laugh (e.g., Poor Pussy); (c) there
is a coordinated series of actions leading to a chaotic
climax (e.g., Consequences); and (d) actions that are
coordinated toward the downfall of a central figure
(e.g., Queen of Sheba).

Games of order and disorder may ultimately give rise
to novelty and innovation within a particular culture.
Therefore, Sutton-Smith recommended that researchers
consider the innovative, as well as the integrative,
functions of children's play and games.

In Sutton-Smith's 1983b article on the "cruel" play
of New Zealand children in the 19th century, there are
some examples of play inversions typical of the time.
When education became compulsory, children responded to
the harsh conditions they faced on their way to school
and in the classroom by incorporating a "rebellious
motif" into their play expressions. For example:

Once a flounder was nailed to the under-side of
the master's table. He could not see it, but
after a day or so he could smell it, and very
plainly at that. He kept pulling the drawer out
and hunting around the table, but not examining
it from underneath. (p. 105)
Other playful inversions reported were:

hiding the log book in the ventilator; cutting the master's strap to pieces... sticking darts into the roof; putting pins into other children; sticking penholders to your tongue and your nose... overflowing newly filled inkwells with lumps of carbide... wearing out the desk footrail by rubbing at it continually with your feet--competition to see who could get through first; exploding gunpowder in the classroom--for example, Guy Fawkes Day occurred a day too soon in Manakau School, for Willie Hiwi exploded a detonator during lessons! Old pupils still recount how the marks of poor Willie's fingers lingered on the ceiling for years. (p. 106)

The cruel play of those years, which also included (as previously mentioned) fighting and initiation ceremonies of an embarrassing nature, further supports the notion that the character of some, if not much, children's play is culturally inversive.

Lorna Marshall

In her ethnography, The !Kung of Nyae Nyae, Lorna Marshall (1976) devoted a chapter to the play and games of the !Kung Bushmen of Southwest Africa. In addition to many descriptions of innovative toys made by boys (e.g., automobiles made out of tubers and bulbs; guns made from reeds with tiny reeds and thorns for ammunition), Marshall described at length four "dramatic games" which express conflict in the form of playful satires. These popular games--Frogs, Ostrich, Cattle and Python--were
played by women, girls and boys together, and involved acting out roles and sequences of action which satirized the basic polarities of !Kung life: parents-children, herders-hunters and humans-animals.

For example, two of the games mocked conflicts between parents and children. In Frogs, the game always ends in pandemonium as the disobedient children are caught by the mother and then struck on their foreheads with her finger so that their "brains ran out" (p. 358). In Ostrich, the old father or mother (the ostrich) gives whining children spoiled meat, throws sand ("fire") at their feet and insults them, until they all swarm over the ostrich to kill it and pluck out its feathers (pp. 359-360).

Conclusion

As Sutton-Smith and Marshall have shown, satire may be found in games in which the content appears imitative while the enactment is actually mocking and farcical. For example, the game "Mother, May I?" has been interpreted as important in the development of the mother/child relationship (Schwartzman, 1978, p. 129). However, Sutton-Smith recalled from his own experience that American girls playing this game "spend as much time cheating and
disparaging the mother as they do in playing out the role of arbitrary authority" (1977a, p.235).

Schwartzman discussed many researchers who have commented on antiauthoritarian themes in children's play and games (1978, pp. 126-132). Also, children's rhymes have satirized or parodied such subjects as (a) adults (e.g., Sutton-Smith, 1953a; Opie & Opie, 1959), (b) adult-taught rhymes, hymns and prayers (e.g., Jorgensen, 1983), and (c) adult speech (e.g., Chukovsky, 1963; Goodman, 1970). Studies such as these have challenged the functional analysis approach to children's play in much the same way children's games have challenged and parodied the existing sociocultural order of adult society (Schwartzman, 1978, p. 134).

**Summary**

This section has reviewed a number of studies that have interpreted children's play and games from the perspective of functional analysis. Since structural-functionalists from the 1920's through the 1950's were mostly interested in important social systems, they seldom reported about children's play in their ethnographies. When play was considered, it was almost always regarded as an imitative activity, functioning to socialize children
by preparing them for adult roles.

Some more recent functional studies have examined how play socializes children with respect to culturally-appropriate sex roles, and positions of power and social status. Other studies have focused on the importance of imaginative or sociodramatic play in socializing or acculturating children. There are also a number of studies which have questioned some of the assumptions implicit in structural-functional reports.

The problem with any functional explanation is that function doesn’t necessarily indicate cause for being (Stevens, 1977b, p. 245). Functional analysis, with its implicit acceptance of the status quo, doesn’t account for social change, deviance or novelty.

Despite the fact that the evidence in anthropology and psychology strongly suggests that children's play is preparatory for adult life, there is only an indirect connection since no one has been able to tie play behaviors directly into adult adjustment. In fact, most researchers adopting a functional perspective have assumed that play prepares children for adult roles without actually testing for the relationship (Lancy, 1977; Sutton-Smith, 1971a). They also have failed to look for anything else occurring in play which does not obviously model the adult society in which the child lives.
Sutton-Smith (1977a, 1977b) has suggested that rather than directly preparing children for adult roles through integration and innovation, play should be thought of as preadaptive. Play potentiates responses—it gets responses ready. Whether they become adaptive depends on whether the responses are encouraged or "whether there is cultural conflict permitting the emergence of such new forms out of play and fantasy into 'serious' cultural discourse" (1977a, p. 237). Thus, there is never a simple transference to the larger cultural system.

The view of play as adaptive potentiation is not too different from that of Groos that play is a preparation for life, except that we put the matter on a probabilistic basis. One recalls the ancient custom of making the fool a king for three days, then killing him. On one occasion, however, the king died during the regime of the fool and the fool became king. That is the nature of adaptive potentiation. Play is the fool that might become king. (Sutton-Smith, 1979, p. 320)
Culture and Personality Studies
of Children's Play

Introduction

In the 1920s and 1930s some anthropologists, including Edward Sapir, Ruth Benedict and Margaret Mead, developed a theoretical orientation known as the culture and personality approach. According to Schwartzman (1978), these researchers "sought to challenge the assumptions of Freud, Piaget and others, as to the universal existence and biologically based nature of certain types of behaviors, feelings and thoughts" (p. 207). They wanted to show that an individual's (or society's) actions can only be judged in relation to a culture's basic pattern or rhythm.

Unfortunately, the early personality and culture investigators (later referred to as configurationists) generally did not study children's play, especially since it was regarded by developmental theorists only as an expressive behavior. Margaret Mead (e.g., 1928, 1930), however, studied primitive children to show how culture affects human nature, and she used play and games to investigate other topics. "This practice of using play for the study of other phenomena was to become the dominant approach taken to play by culture and personality researchers"

Some culture and personality researchers developed an interest in children's play in the 1930s and 1940s, when psychoanalytic theory was adapted to cultural analysis by psychiatrist Abram Kardiner and anthropologists Ralph Linton and Cora DuBois. Researchers at this time sought to discover the influence of primary institutions (i.e., child-rearing practices) on the "basic personality structure" (which is typical of a society's members) and on a society's secondary institutions (e.g., religion, taboo systems, folklore). In using this approach, these researchers regarded play as a projective system—an activity which is expressive of a child's inner drives and anxieties, and which in turn are related to the influence of cultural patterns. This interpretation of play has been perpetuated by Western psychoanalytically oriented studies of children's play and fantasy behavior. In these studies, psychiatrists and psychologists continue to treat play as a projection system, and to use it to study other behaviors (Schwartzman, 1978, pp. 207-209).

In the 1950s and 1960s the Whiting and Child research school, which combined statistical methods with psychoanalytic and learning theories, continued to view play as expressive of certain aspects of personality. Unfortunately, the school's major project—an extensive
cross-cultural study of socialization in six communities—provided very little information on children's play.

In the 1960s and early 1970s, researchers John Roberts, Brian Sutton-Smith and their associates utilized some of the Whiting and Child techniques and theories in an attempt to show a relationship among types of cultures, children's games, and child training variables. Studies in this research tradition treated play as both generative and expressive of personality and culture. These studies were eventually criticized because of limitations necessitated by the statistical methodology, such as excluding texts of play events, and removing games from their original cultural context in order to compare them cross-culturally (Schwartzman, 1978, p. 209).

**Psychoanalytic Theories of Play**

Sigmund Freud

It has been suggested that the rise of culture and personality studies in the 1920s and 1930s was the result of anthropologists' reactions to psychoanalysis. Some anthropologists challenged certain aspects of Freudian theory (e.g., Malinowski, 1927), while others sought ethnographic evidence to support it (e.g., Róheim, 1943). Kardiner and Linton (e.g., 1945) synthesized Freudian
theory with anthropological perspectives into a psychocultural theory, which was later modified by the Whiting and Child school, and then by the Roberts and Sutton-Smith studies (Schwartzman, 1978, pp. 141-142).

Freud's psychoanalytic explanations of play (e.g., 1905, 1920) are varied, but they contain two recurring themes: (a) in play, children act out and repeat problematic life situations in order to master them; and (b) in achieving mastery in play, the child projects his own anxious or hostile feelings onto other individuals or objects (Herron & Sutton-Smith, 1971, pp. 107-109).

A well known example of Freud's interpretation of children's play occurs in Beyond the Pleasure Principle (1920), in which Freud described how his 18-month-old grandson threw all available toys and objects under his bed whenever his mother left the house. The grandson took particular delight in making a spool, attached to a long string, "reappear" after throwing it under the curtained cot. The child played this disappearance-return game repeatedly, and Freud interpreted the "game" to be his grandson's:

instinctual renunciation. . . which he made in allowing his mother to go away without protesting. He compensated himself for this. . . by himself staging the disappearance and return of the objects within his reach. (1920, p. 34)

Thus, the child's play behavior was seen as originating
in the conflict arising from the mother's frequent absence. The grandson's behavior was a way to "control" the situation and to express his fears.

Freud (1920) also believed that all children experience a powerful need to grow up. They feel this need both biologically (through maturational pressures) and psychologically/sociologically (through observation and imitation of parents and others). Play, particularly, imitative play, allows the child to master the frustration arising out of this need by by permitting vicarious or symbolic control of his or her play world in order to feel grown up (Levy, 1978, pp. 100-101).

**Erik Erikson**

Erik Erikson (e.g., 1951, 1968), the American psychoanalyst, educator and artist, extended the classical psychoanalytic theory:

Whereas Freud, like his peers, emphasized the biological and instinctual determinants of behavior, Erikson emphasized the interactive role of the human social environment with the biological makeup of the individual. Erikson's theories, unlike Freud's, span the whole life cycle. He thus shows how human beings continue to grow and develop beyond the resolution of the Oedipus complex. (Levy, 1978, p. 100)

Based on Freud's view of play, Erikson regarded play as the opportunity to fulfill the need to be grown up and the need to assume an active role. However, Erikson
stressed the growth-enhancing, rather than anxiety-reducing, qualities of play (Herron & Sutton-Smith, 1971, p. 109). In Childhood and Society (1963), Erikson stated: "I propose the theory that the child's play is the infantile form of the human ability to deal with experience by creating model situations and to master reality by experimenting and planning" (p. 222). For Erikson, play is an opportunity for the development of the ego through its interaction and adaptation (throughout a person's life cycle) to the real world.

Erikson's (1963) descriptions of play behavior during the three developmental stages of infantile maturity (i.e., autocosmic, microcosmic, and macrocosmic) influenced Bateson and Mead's (1942) interpretations of Balinese child development. He has also studied the relationship between children's personalities and their social context (e.g., 1943), the phenomena of "play disruption," which is said to occur when a child projects too much anxiety onto his toys in play during the microcosmic stage (1940), and sex differences expressed in children's play configurations and constructions (e.g., 1951).

Other psychologists and psychiatrists who have extended Freud's ideas on play include Lili Peller (1954), D. W. Winnicott (1971) and Rosalind Gould (1972).
Culture and Personality Studies in
the 1930s and 1940s

Jules and Zunia Henry

The most obvious use and elaboration of Freud's ideas can be seen in the widespread use of children's play for diagnostic and therapeutic purposes. Beginning in the 1930s and 1940s, and lasting into the 1950s, many anthropologists adopted the use of miniature toys and dolls in order to elicit projective material from non-Western children. The studies using the doll play approach utilize play as a context, or testing ground, for the study of other aspects of children's behavior, including aggression, stereotypy, prejudice and effects of separation from parents (Herron & Sutton-Smith, 1971, p. 107; Schwartzman, 1978, p. 149).

The most extensive and well known example of a study utilizing the doll play technique is Doll Play of the Pilagá Indian Children: An Experimental and Field Analysis of the Behavior of the Pilagá Indian Children by Jules and Zunia Henry (1944). The researchers used this technique to investigate the existence of patterns of sibling rivalry among the Pilagá children of Argentina. The types of dolls used for this experiment were a father, mother and several
child dolls. In each play session, the researchers named the dolls according to the the names of the participating children and their family members. Other materials made available to the children included a mechanical turtle, scissors and some plasticene. The children often used these materials to make genitalia and breasts, both spontaneously and at the suggestion of the investigators.

The Henrys had difficulty standardizing their experiments because Pilagá adults and children were always around and frequently two or more children played with dolls at the same time, all of which made the recording of their interactions extremely difficult. However, the Henrys did not force the children to play with the dolls individually, which would have set up an artificial context for play with the foreign materials.

The investigators compared their findings with the research on American children's sibling rivalry by Levy (1937) and found that, unlike American children, feelings of remorse and the need for self-punishment occurring as a result of sibling rivalry do not exist among the Pilagá children. The Henrys concluded that the differences in Pilagá and American sibling rivalry patterns were culturally determined. This conclusion generated controversy concerning the universality of the Western syndrome of
sibling rivalry.

**Geza Roheim**

Geza Roheim (1941, 1943) went to elaborate lengths to demonstrate Freudian themes in Duau children's play on Normanby Island. Contrary to Malinowski's (1927) findings with the Trobriand Islanders, Roheim wanted to show that the Oedipus complex existed among the Duau, a matrilineal, monogamous Melanesian people related to the Trobriand Islanders, thereby providing evidence for the universality of this Freudian complex.

In one of his articles, Roheim (1943) reported finding in a variety of children's games and rhymes dramatizations of the latent themes of separation and reunion, sibling rivalry, the primal scene, and the Oedipus complex. For example, in discussing the meaning of the texts of several versions of a ball game, Roheim explained:

In the ball throwing game, we find that a witch or a mythological personage has been delivered, and that there is no food for the new-born baby or for the mother. The obvious interpretation is the hostile attitude of the child with regard to the mother and new rival. If children throwing things out of the window are playing at getting rid of their brothers and sisters, it would seem plausible to interpret this ball game with the accompanying verse, as a way of working through sibling rivalry. They are throwing their brothers away and then catching them again. (pp. 112-113)
Röheim (1941) also used dolls and animal toys to elicit projective data. However, unlike the Henrys, he typically intervened in the play to assist the children's enactment of Freudian themes. For example, at one point during a lovemaking game that three children were enacting with the dolls, Röheim took a small doll, placed it beside two larger dolls and suggested that it was the child. "The result is unexpected; suddenly they all get gloomy, depressed. This was too much like the primal scene for them" (p. 526). The next time these children came to play, however, they seemed to enjoy the "primal scene game."

Wayne Dennis

In *The Hopi Child*, psychologist Wayne Dennis (1940) described the Hopi child-rearing practices and the typical behavior of Hopi children. His interest in combining observations of children's behavior with the collection of information from adult informants on child-rearing practices led him to pay close attention to children's play.

So that he and his wife might more easily observe the behavior of children, and especially their play activities, Dennis built a "play shelter" beside his residence. The shelter was similar to structures built
by the Hopi in their fields to provide protection from the hot summer sun. For at least one hour a day, he or his wife unobtrusively observed the play activities that were going on in the shelter. They presented all their notes on the play sequences observed, as well as the name, age, sex and relationships of the players, in the form of a "play diary." The activities observed by the investigators are varied and include, for example, house building and house play (girls), rolling auto tire (boys), mock fights and teasing between boys and girls, tag, tug-of-war, and so on.

In this monograph, Dennis also described in considerable detail the play and games of children living in a more traditional Hopi village. He gathered these data mostly from interviews with older informants, but was able to observe children actually playing many of these games in the village where he lived. Included in this description are the imaginative, unstructured play activities of children. For example, girls often built miniature adobe huts and cleverly furnished them with bits of scavenged materials. Girls' dolls were traditionally made from sticks or livestock leg bones tied with cloth. Boys imaginatively constructed corrals and used peach seeds as sheep. Finally, in addition to descriptions such as these, Dennis also discussed the organized games of the Hopi, and the seasons they were
associated with.

The material from the play diary and the detailed accounts of both organized and unorganized play activities are a unique methodological and descriptive contribution to the anthropological study of children's play. Also, *The Hopi Child* is one of the first ethnographic studies to emphasize the importance of collecting information on play from actual observations.

**Gregory Bateson and Margaret Mead**

*Balinese Character* (1942), a monograph jointly produced by Gregory Bateson and Margaret Mead, "is both a unique record of Balinese culture, as revealed by the behavior of the inhabitants of Bajoeng Gede, and a model of what it is possible to do with film and still photographs in the study of social systems" (Schwartzman, 1978, p.161). As a part of the study, the researchers recorded, with simultaneous notes and photographs, a variety of play sequences of both children and adults, in an attempt to show some of the subtle ways culture is communicated.

It was observed that Balinese children, particularly boys, learn to regard their own bodies as toys. The infants are treated as toys and playthings by sisters and parents. Young children also learn to treat insects and
small animals as toys, and they focus on how their actions affect the behavior of their toys. Little girls care for younger siblings and treat them as their toys. In fact, they rarely invent substitute dolls. These behaviors, among others, contribute to the development of an increased bodily consciousness in boys and girls.

In their interpretation of this behavior, Bateson and Mead used Erikson's developmental play scheme. Erikson (1943) described play as progressing from exploratory and repetitive actions (play centered on the body), to playing with and manipulating toys, and then to playing with other children and adults. In this way, according to Erikson, a child's focus gradually shifts from his or her own body to the world of others.

However, this is not the case in Bali, where a child comes to refocus attention back on himself or herself. Since others play with a child's body "it is not surprising that he develops a bodily awareness very different from our own" (Bateson & Mead, 1942, p. 26).

A variety of other play and game activities are also described and illustrated with photographs. For example, boys games are boisterous, and boys spend a lot of time away from the village exploring and playing. Girls also play boisterous games, as well as crack-the-whip games,
and other group games. They also enjoy making sand
drawings.

Children's Play in Culture and Personality
Studies Since 1950

H. Centner

Since 1950, a number of culture and personality
studies examining children's play have been produced.
One of these studies, H. Centner's *L'Enfant Africain et
Ses Jeux* (1962), is the most extensive and detailed
presentation of information on children's play available
in the African literature (Schwartzman & Barbera, 1977,
p. 28). The study is published in French, and this review
refers to Helen Schwartzman's discussion of this work
based on her own translation (1978, pp. 166-174).

Centner, a missionary, documented how acculturation
processes affect the personalities and play behaviors
of the Luba, Sanga and Yeke children (Bantu groups)
living in what was then known as the Belgian Congo.
She adopted the viewpoint of Ralph Linton (1945), (and
of most culture and personality researchers), that the
interaction of individuals with their culture determines
their particular personalities and patterns of conduct.
Several chapters of this extensive monograph describe (a) traditional dolls (made of clay, bananas or ears of corn) and doll play, (b) the masansa (i.e., children's villages), and (c) a variety of verbal games and play. During the dry season when there were fewer economic responsibilities, children of all ages grouped themselves into families and clans to construct an elaborate play village just outside their own villages. Here, for a period of one week during daylight hours, the children acted out specific roles, such as husband, wife, child, village chief (played by an older boy), village crier, policeman and an ogre or villain (who tries to steal the "children"). Sometimes the children recreated tribunals, dances, religious rituals and circumcision camps. However, contrary to the concerns of many missionaries, Centner found that children weren't permitted to, and seldom did, engage in sex play in these villages. Masansa were very popular and persisted during times of urbanization and modernization.

Centner also described eight types of language games, which represented only a sample of this diverse play form for these children and adults. She provided many examples of rhymes, puzzles, riddles, alliterations, hand and finger rhyming games, a vocabulary game called "naming," secret
languages of boys and girls, jokes that children have made up themselves and passed on from one generation to the next, and children's rhymes about species of birds accompanied with skillful imitations of their calls.

Although her work is mainly descriptive, for Centner: play is significant because it serves a dual purpose; it both forms and affirms a child's personality. A person exists, of course, in a sociocultural context, and this environment influences and is influenced by individuals and the play forms that they create and "recreate." These relationships are proposed and tentatively explored in this, the most detailed descriptive report of non-Western children's play activities. (Schwartzman, 1978, pp. 173-174)

**Beatrice Whiting**

Beginning in the late 1940s and during the early 1950s, a new theoretical and methodological approach was adopted by some culture and personality investigators. Researchers John W. M. Whiting and Irvin L. Child used statistical methods (made possible by G. P. Murdock's development of the Cross-Cultural Survey File--later known as the Human Relations Area File, or HRAF) for testing hypotheses derived from Freud's psychoanalytic theory and neobehaviorist learning theories of Hull, Dollard, Sears and others (Schwartzman, 1978, p. 208).

This approach proposed that maintainence systems (i.e., basic customs surrounding the nourishment,
sheltering and protection of a society's members) generate types of child training practices, which in turn affect personality variables and a society's projective systems (which includes play activities) (Whiting & Child, 1953). The effect of ecological variables upon a society's maintenance systems was later added to this model (B. Whiting, 1963).

The Whiting and Child research school produced the Six Cultures Project, a cross-cultural investigation of socialization in six communities. This project is regarded as "a landmark in the presentation of comparative ethnographic material on the subject of child training practices," but which is also "a disappointment for students of children's play" (Schwartzman, 1978, p. 208). The ethnographies in Beatrice Whiting's Six Cultures: Studies in Child Rearing (1963), (which is the most well known production of this research school), presented some information on children's organized and leisure activities, but only a few reports provided any detailed descriptions of actual play events. Generally, the researchers only listed types of toys or games, or made vague statements about play behaviors.

For example, the Levines (1963, pp. 19-202) reported that fantasy play was almost non-existent for Gusii children in a Kenyan community. Boys were observed to
climb trees, swim in streams watch cars passing on the road, get into fights, and so on. Girls played with infants in their care, and giggled, teased and pushed one another. The authors suggested that the physical isolation of homesteads and the many economic duties required of children were responsible for their apparent lack of play activities.

Minturn and Hitchcock (1963, pp. 207-361) also did not describe in any detail the play activities of Rājpūt children living in India. Young children played with their mothers and same-age cousins in enclosed family courtyards. Older children (ages 5-7) played games like tag, field hockey and hopscotch in the streets, fields or on the men's platforms.

In contrast to these reports, the Maretzkis (1963, pp. 363-539) found that children in an Okinawan village had a lively and varied play life. Young children (ages 2½-6) played throughout the day both in kindergarten and near their mothers who worked in the fields. After age six, when children began attending school, there were a variety of organized and unorganized play activities on the school playground. After school, girls often played house or pretended to shop, while boys participated in many sports activities such as jumping events and wrestling. The researchers reported on a number of games, including
hopscotch and kick-the-can, for example, and also described how children imaginatively used ordinary objects in their play, such as substituting seeds for marbles or bamboo pieces for daggers.

The Romneys (1963, pp. 545-691) did not provide detailed descriptions of play activities for Mixtecan Indian children living in a barrio in the _ladino_ (Spanish-speaking) town of Juxtlahuaca, Mexico. Young children engaged in some unorganized play (e.g., playing house; sex play) with siblings or cousins in partially enclosed courtyards. School provided an opportunity for older children to play organized games and sports. The researchers suggested that in some of these games, Mixtecan children (who are regarded as an inferior minority by their _ladino_ classmates) learned behaviors such as telling lies, aggression, and acception inferior positions.

Children in an Ilocos barrio in the Philippines mostly played together in common yard spaces shared by a number of families (Nydegger & Nydegger, 1963, pp. 697-876). Younger children were observed playing peek-a-boo and pretending to build houses, cut cane, cook and string tobacco. Older children played games like tag and hide-and-seek with younger children in their care. School children played volleyball, and girls enjoyed jacks and hopscotch, while boys played marbles, bolo tossing and wrestling.
Not surprisingly, children in a New England community had more toys to play with than any of the other children studied in this project (Fischer & Fischer, 1963, pp. 873-1010). Blocks, stuffed animals, dolls, toy guns, miniature vehicles, tricycles and board games are just a few of the toys listed in this ethnography. The researchers discussed the contexts of play for preschool and school-aged children, noting that unlike in the other societies, mothers in this community spent most of the day with their children and required few household tasks from them. Also, in addition to the organized and unorganized play in school (at recess and during gym class), children also participated in a variety of after-school activities, such as Boy/Girl Scouts, choir practice, dancing lessons and baseball practice.

Sutton-Smith suggested that variables such as amount of economic duties, complexity of the society, amount of privacy and father-child interaction may have affected the frequency and types of play observed by these investigators (1977c, pp. 228-230). Schwartzman further suggested that the presence or absence of commercial toys and the degree of competition in the enactment of specific games may be other useful ways to compare these studies (1978, p. 193).
J. M. Roberts, M. J. Arth, and R. R. Bush

In the 1960s and early 1970s, some personality and culture researchers developed an interest in the cross-cultural study of children's games. This interest began with the article "Games in Culture" by Roberts, Arth and Bush (1959). Their study, which was inspired by the methodological possibilities of the HRAF and the original studies of Tylor on game diffusion, represented an attempt to provide a statistically verifiable theoretical framework for the study of games which would explain both their geographical distribution and their sociocultural significance.

This article was one of the first anthropological attempts to distinguish between "games" and "amusements" (Schwartzman, 1978, p. 196). The authors defined games as recreational activities characterized by organized play, competition, two or more sides, criteria for determining the winner, and agreed-upon rules. They defined amusements as group pastimes, stunts, model play, and other non-competitive recreational activities.

Games were grouped into three classes based on outcome attributes: (a) games of physical skill (the outcome is determined by the players' motor activities); (b) games of strategy (the outcome is determined by rational choices among possible courses of action); and (c) games of chance.
(the outcome is determined by guesses or some uncontrolled artifact such as a die or wheel). Some of the classifications were further subdivided. For example, games of physical skill may be "pure" (e.g., weight lifting), may have an element of strategy (e.g., baseball), or chance (e.g., musical chairs), or both strategy and chance (e.g., steal the bacon). Games of strategy may be pure (e.g., chess) or may have an element of chance (e.g., poker). The category of games of chance was not subdivided.

Roberts, Arth and Bush viewed games as both models of cultural activities and exercises in cultural mastery. Games of strategy were related to cultural complexity and mastery of the social system. Games of chance were associated with the benevolence or coercibility of supernatural beings and mastery of the supernatural. Finally, games of physical skill were related to the environmental setting and mastery of the self within the environment.

One of the most significant features of this article was the association found between the complexity of cultures (based on Murdock's 1957 criteria of political integration and social stratification) and the presence or absence of certain types of games. The authors predicted that since games of strategy simulated social systems, those systems should be complex enough to generate needs for such
expression. Statistical analysis of material from 43 groups indicated, as predicted, that simple societies do not possess games of strategy, while more socially complex groups did have games of strategy. There was no relationship, however, between cultural complexity and games of chance or skill.

J. M. Roberts and B. Sutton-Smith

The research of Roberts, Arth and Bush and of the Whiting and Child school, led Roberts and Sutton-Smith (1962) to propose the "conflict-enculturation hypothesis" for game involvement. According to this hypothesis, different child rearing patterns of various cultures produce anxieties or conflicts for children, which later encourages involvement in expressive models, such as games. Through games, children attempt to assuage their stress and engage in social learning without fearing any serious repercussions.

To test the hypothesis, the investigators looked for associations between classes of games (strategy, chance and physical) and child training variables (e.g., responsibility, obedience, self-reliance, achievement, nurturance and independence) in 111 societies. The results indicated associations between (a) games of strategy and
training in obedience, (b) games of chance and training in responsibility, and (c) games of physical skill and training in achievement. There were also relationships between group pastimes and independence training, certain types of pretend role play and nurturance, and stunts and training in self-reliance.

The researchers used these results to predict variations in game preferences of 1,900 American boys and girls, and found as predicted, that: (a) girls with higher obedience training preferred games of strategy more than did boys; (b) girls with higher responsibility training preferred games of chance more than did boys; (c) boys with higher training in achievement preferred games of physical skill more than did other boys; and (d) differences between girls' and boys' preferences were less in regard to games of physical skill than in regard to games of both physical skill and strategy which are more closely related to achievement anxiety.

This research tradition produced a number of other subsystem validation studies, including: Roberts, Sutton-Smith and Kendon (1963); Sutton-Smith and Roberts (1964, 1967); Roberts, Hoffman and Sutton-Smith (1965); Roberts and Sutton-Smith (1966); Roberts and Ridgeway (1969); Roberts and Forman (1971); and, Barry and Roberts (1972).

For example, Roberts, Sutton-Smith and Kendon (1963)
proposed that if the strategic mode in folk tales occurs in the same general cultural setting as the strategic mode in games, it will be possible to establish relationships between strategic outcomes in tales and (a) the presence of games of strategy in the same cultures; (b) political complexity; and (c) high obedience training.

Again using cross-cultural material from the HRAF, the researchers scored folk tales as if they were games (e.g., is the tale an account of a contest between two or more sides?). They also scored the tales for the presence of themes expressive of the child training variables.

The results supported the conflict-enculturation hypothesis. The investigators found that in cultures where the strategic mode of competition is modeled in one medium (i.e., games), it is likely to be modeled in the other (i.e., folk tales). In both mediums it is associated with obedience training and cultural complexity: games of strategy were associated with obedience themes in tales, and obedience training was associated with cultural complexity.

A number of researchers have criticized both the Whiting and Child school of research in general and the Roberts and Sutton-Smith studies specifically. Eifermann (1971), for example, did not find support for the conflict-enculturation hypothesis when she tested it using her
observational data on Israeli children's play. This points to one problem with the Roberts and Sutton-Smith research: the investigators only used data from the HRAF and did not conduct observational cross-cultural studies to test their hypothesis (Georges, 1969). It was also suggested that certain types of games might just as easily be the cause of some child training practices as to be the result of them, and that the assumption that game involvement is based on a need for relief from inner conflicts needs to be questioned (Millar, 1968).

Because these studies emphasize the psychogenic and sociogenic correlates of games, they are ultimately studies of play contexts (Sutton-Smith, 1974). They do not analyze games as they are actually played. Instead, games are pulled from their original sociocultural system and placed in artificially constructed contexts for statistical analysis. However, the Roberts and Sutton-Smith studies are significant because they tried to investigate both expressive and formative characteristics of play behavior, and most importantly, they reopened the topic of play for anthropological research (Schwartzman, 1978, p. 204).

M. Maccoby, N. Modiano and P. Lander

In "Games and Social Character in a Mexican Village"
(1964), by Michael Maccoby, Nancy Modiano and Patricia Lander, both the expressive and formative characteristics of children's play were examined. This observational investigation used ideas from the Roberts and Sutton-Smith orientation, as well as from Freud, Piaget, Erikson, and G. H. Mead, to explore games and their relationship to the development of social character in a mestizo village in Morales, Mexico. They specifically examined (a) how interpersonal relationships are expressed in games, (b) how games influence the development of social character, (c) whether the introduction of new games produces any social changes, and (d) whether games provide information on how certain character traits develop, such as individualism, cooperation and rational authority.

Participant observation and questionnaire responses revealed five developmental levels in which specific kinds of play predominated: (a) pretend play (up to age 8); (b) play and games of physical skill (ages 4-12); (c) central-person games (ages 9-12); (d) team sports (ages 12-16); and (e) basketball, cards and billiards (men over 16).

The investigators also found that the differences in how boys and girls actually played games revealed differences in the social character development of the two sexes. For example, the central-person games played by boys were frequently unstructured and violent. These games portrayed authority
as an irrational punishing force where the central person either has no authority and is chased by the group, or is permitted to punish the others who try to escape. Boys' games and social character are related because in both "a boy does not learn to disengage himself from authority, and egocentrism, by cooperating with his peers," and that in "village life the tendency is for atomism rather than cooperation, and the formation of a mass rather than individualism and respect for differences" (p. 159).

Girls' central-person games were more structured and less violent than the boys' games. In girls' games, each player gets a turn to act as leader, and all the other players readily accept that authority. Also, the themes of girls' games often revolve around dangers from the male world. Thus, these games reflect the village life of females both symbolically and in their behavior towards authority.

The study also discussed the effect of introducing new games to the children in the village. The investigators found (especially with variations of the central-person game "Red Rover") that boys and girls consistently transformed the rules during the play in ways which revealed the social character of each sex, just as in their own games (e.g., boys added an element of violence by using "weapons"; girls wanted to be caught by the central person instead of trying
to escape).

**Maurice Apprey**

Over the years many psychologists and psychiatrists have revised and extended Freud's original ideas on play (e.g., Peller, 1954; Winnicott, 1971). A paper recently presented at an annual TAASP meeting by Maurice Apprey (1984), illustrates how the play behavior of a seven-year-old boy was psychoanalytically interpreted. Following Ricouer (1978), who held that the course of analysis should take the form of a narrative, the author presented a case study to illustrate "how mature language can follow action, and also how analysis of the transference ultimately brings resolution of conflict" (p. 134).

Apprey highlighted his observations and own role as therapist in the diagnosis and treatment of his patient. He specifically focused on the child's play actions and play commentary, and showed how, during the course of treatment, the child's play and verbalizations reflected a "shift from concrete anal phase concerns to the higher function of verbalization by which he was able to communicate his needs in word as well as play" (p. 142).

The psychoanalytic view that children use play and language to re-create and construe important parts of
their worlds underscores the notion that play is an expressive behavior rather than a generative one, which is typical of most culture and personality interpretations. Apprey's analysis emphasizes the importance of the child's commentary on his play actions (and the analyst's verbal interpretations) in helping the child "to think, visualize, act, and articulate purposefully the collection of such derivatives which he brings in the early months of analysis . . . It enables his story to unfold, and the nature of his conflicts and anxieties, etc. to be understood" (p. 134).

Sara Harkness and Charles M. Super

Another paper recently presented at an annual TAASP meeting which takes a personality and culture approach to studying children's play is "The Cultural Structuring of Children's Play in a Rural African Community" (1986) by Harkness and Super. This paper examines how play is shaped in the "developmental niches" of children among the Kipsigis of Kenya. The concept of a developmental niche provides a framework for considering childhood socialization and development, and has three dimensions: (a) the physical and social setting in which the child lives; (b) the culturally regulated systems of child care and child rearing; and (c) the beliefs and values of the
caregivers that guide their structuring of, and responses to, children's behavior (p. 97).

The researchers used an adaptation of the "spot observation" technique to acquire a profile of the daily lives of people of all ages in one Kipsigis community. Each of the 54 households in the community was visited a total of ten times, during which an observer noted the location and activities of each family member. The observations were grouped into three major categories: (a) play (e.g., active or quiet, solitary or social); (b) idleness (e.g., resting, watching, sitting, sleeping); and (c) work (e.g., collecting firewood, cooking, tending animals, caring for young children).

Developmentally, the profile indicated that by the age of two years, play occupies almost half of the children's time. However, between ages three and six, play and idleness sharply decreases while working behavior increases. By age nine, children spend more than half of their time working and less than ten percent in play or idleness. These trends were not surprising to the investigators since children are important contributors to the economic life of the Kipsigis, and are given work responsibilities as early as age three.

The spot observations provided information about the settings for children's social and individual behavior,
and indicated the socialization pressures on children of various ages. It was apparent that socialization is directed toward work for Kipsigis children. As children grow older, their game episodes become increasingly sporadic, with short and relatively undeveloped play sequences usually occurring during the performance of economic tasks. This was illustrated with a detailed description of a 20-minute episode during which a group of children repeatedly started and stopped a game of tag while caring for a two-year-old (pp. 100-102).

The authors also believe that socialization pressures are reflected "in the topics around which parents interact with their children" (p. 102). In a study of child language development, the researchers found that mothers seldom talked (or played) with their toddlers. Mothers felt that it was not their role to play with their children, but rather the responsibility of the older siblings who were the assigned caretakers. Parental interaction with young children largely involved reprimands for work not done, or instructions for running errands, etc.

In conclusion, these researchers have applied knowledge of the culture in general (i.e., the developmental niche) to interpret the structuring of children's play, and play again has been assigned an expressive or reflective role.
Summary

The theoretical and methodological orientations of culture and personality researchers have shifted over the years in response to psychoanalytic theory, neobehaviorist learning theory and the statistical possibilities of the HRAF. However, when this approach has been applied to children's play and particularly their games, these behaviors are usually treated as a projective system whereby anxieties and conflicts arising from cultural or child training practices were projected by children into play and games. In this way, hostilities could be safely expressed and life-conflicts could be mastered.

By using play to study other behaviors, culture and personality researchers assumed that play was expressive of personality patterns. More recently, the Roberts and Sutton-Smith approach recognized that play is both generative as well as expressive of personality and culture. However, most culture and personality studies continue to emphasize the study of the contexts of children's play and games but not the texts of actual play events.
Structural and Cognitive Studies
of Children's Play

Introduction

In the chapter "Minding Play: Structural and Cognitive Studies," Helen Schwartzman brings together a variety of recent studies which have one thing in common: play is a phenomenon of the mind (1978, pp. 248-301). For the most part, these studies began to appear in the 1950s with the adoption by anthropologists of linguistic metaphors for analyses of culture.

Research on play from the structuralist and cognitive perspectives assumes that "mental structures may be reflected in the words or categories that players use to describe their own activities [an "emic" approach], or that researchers use to describe these players' actions [an "etic" approach]" (Schwartzman, 1978, p. 300). Also, play is regarded "as a cognitive activity that may be expressive or generative of both general or specific cognitive skills" (Schwartzman, 1978, pp. 300-301).

Structuralist and cognitive play researchers have tended to focus on analyzing play texts. However, there are many studies which have considered play contexts as well, particularly those concerned with psychological functions
of play. Following Schwartzman's organization, this section will consider: (a) studies utilizing the players' own views of their play and games; (b) recent structural studies from the investigator's perspective; (c) Piaget's theory of play as cognition; (d) studies which examine the relationship between play and learning; and (e) studies of children's verbal and sound play.

Research Examining Children's Views of Their Play and Games

Introduction

The research of Sue Parrott (1972) and Christine von Glascoe (e.g., 1976) offers examples of the application of ethnoscientific methodology, in which the ethnographers investigate how individuals classify and categorize their names for things. (Names create order and give meaning to things in one's world) (Tyler, 1969). In the study of children's play this approach elicits the players' terms and categories for games or play. This approach will not work with children who are too young to verbalize their terms for games and play, or with children whose domains for play and games in their culture are not highly systematized or ordered. Also, some nonverbal activities
of the players, and implements employed or produced during play or games, may not be reported if they are not verbalized by the player-informants (Schwartzman, 1978, p. 253).

Despite these disadvantages, two interesting ethnoscience investigations of children's play illustrate what one learns when the derivation and interpretation of meaningful structures (or contrasts) is treated not as a given, but as a problem requiring careful and specific eliciting techniques that emphasize the point of view of the player. (Schwartzman, 1978, pp. 253-254)

The player's perspective is considered in a different way by psychologists Reifel, Briley and Garza (1986), who utilized young children's narrative descriptions of play and games at school to learn about the development of their cognitive scripts for this activity. According to schema theory, scripts are cognitive organizing devices. By examining the content and language used by children to describe their experiences in preschool, the researchers learned something about children's perceptions of what constitutes playing.

Sue Parrott

Sue Parrott adopted an ethnoscience approach in "Games Children Play: Ethnography of a Second Grade Recess" (1972). During several interview sessions, Parrott asked a group of six second-grade American boys to classify
and organize their recess activities. The boys classified their activities into three major categories: (a) games (e.g., keep away, relay races); (b) goofing around (e.g., sucking icicles, running around, fighting); and (c) tricks (e.g., looking under girls' skirts, splashing someone).

Although the children did not actually articulate the distinguishing features of their recess activities, Parrott described the basic features based on the boys' ideas about the differences between these activities. The distinguishing features for games were: (a) types of boundaries; (b) types of penalties; (c) types of roles; (d) game outcome; (e) presence or absence of teams; and (f) rule structure.

Tricks were characterized by unexpectedness, physical activity, opposing forces, and player's intentions. Finally, the features for goofing around were a lack of teams, lack of rules, lack of competition or goals, and that this type of activity may be done alone.

Christine von Glascoe

One of the most detailed ethnoscientific studies of game classification systems available was conducted by Christine von Glascoe (e.g., 1977). Her investigations focused on the patterning of game preferences for Yucatan adults, adolescents, and children in a rural and an urban
community. The resulting analyses clearly show that games are multiply interpreted with regard to both interest and understanding, thereby challenging the traditional "one game, one interpretation" approach to the study of games and game classification (von Glascoe, 1977, p. 120).

In one of her reports, "The Patterning of Game Preferences in the Yucatan" (1977), von Glascoe examined both involvement in and understanding of the game domain of urban Yucatan women. She conducted two game surveys among females in three age sets (i.e., children, adolescents, and adults). The first survey asked the subjects to remember all the games they knew and which of these they liked and/or played. Using information from this initial survey, the investigator asked the subjects to divide approximately 30 games into subsets of similar games and describe the criteria (distinguishing features) used in determining the subsets. The subjects also rank-ordered the games according to degree of preference, and then regrouped the games according to frequency of play.

The principle findings were:

1) attitudinal measures of involvement ('liking') are more closely correspondent with overall amount of game participation rather than with the recency of game participation; 2) children play games they do not like, while adults like games they do not play; 3) females' interests in particular games change as they pass from childhood to adolescence to adulthood; 4) of the games they like most, some are those they currently play, but in both cases there is an almost
one-to-one correspondence between similarity class and recency of game playing; 5) for all females the most-liked games are judged to be members of different similarity classes for adolescents than for girls, and for women than for adolescents or girls. (p. 120)

One example illustrating how the age groups used different features to describe games is the classification of the game advinanzas (riddles). Children classify the game as a "circle game" involving "central figures." Adolescents include the game in a larger class of games which are played in "social gatherings" and are said to "exercise the mind." Adults recognized that the game not only "develops the mind," but is "scientific." Thus, the description of advinanzas across the three age groups progresses from a description of the roles and social nature of the game to a "characterization of the difficulty of being able to puzzle out a solution, and finally to the location of the game among the other games that must be played 'scientifically'" (p. 129).

Stuart Reifel, Sandy Briley and Margaret Garza

A recent psychological study of children's play, which combines both the researcher's as well as the subject's perspective, is reported in Reifel, Briley and Garza's (1986) article "Play at Childcare: Event Knowledge at Ages Three to Six." This investigation utilized the
notion of cognitive scripts to analyze children's narrative descriptions of their play experiences in an American preschool program.

In their report, the authors referred to a similar study by King (1979) which had found that kindergarten children said they were "playing" when they freely chose an activity, and that they were "working" when the teacher directed them to an activity (even if it was a game). It was therefore not surprising, given the children's views about what is play in school, that the teachers defined many more classroom activities as play than did the students.

The investigators defined a script as a concept referring to a cognitive organizing device. Individuals organize their daily experiences into cognitive structures which provide information on what is typically associated with the experiences. These structures, or scripts, help guide and shape an individual's expectations (pp. 81-82).

In the children's narratives of their activities, the authors looked for two elements which characterize script formation: (a) a statement about acts, which are memories for events as experienced, and (b) the language form used to state acts. "Scripts with 'we' or 'you' (in the sense of 'one) combined with timeless present tense (e.g., we go out to play...). . .suggests the regular on-going nature of the acts presented in the script" (p. 82).
Fourteen English-speaking, multi-ethnic American preschool children were interviewed with questions such as, "tell me what you do at school each day," or "tell me what you like at school," and so on. Based on the wide range of responses in the 14 transcripts concerning play acts, the researchers organized the play acts into four categories: pretend, manipulative, dramatic, and games. They also considered older and younger age groups within each category.

The results indicated that most children think of play in their preschool setting in terms of manipulative activities (e.g., scooters, puzzles, blocks) and dramatic play without materials. Also, only the older children (ages five and six) mentioned games, even though all children participated in games during the school day. Pretend play with props was seldom mentioned by any of the children.

An examination of children's verbalizations revealed a developmental progression toward a script-like description of play experiences, so that by the age of five, children seem to have formed general knowledge scripts of play activities at nursery school.

Another finding was that although most children were observed engaging in both social play and play with materials, the children only described their play in terms of one category, never both. The researchers suggested that this
may be a result of the interview technique, or that the children's responses reflected their preferences for play at that time. This discrepancy highlights the importance of exploring the child's point of view, for how adults see and define play is probably not consistent with the child's sense of play.

Structural Analyses of Children's Play
from the Investigator's Perspective

Introduction

The approach of the early collectors and classifiers of game texts, in which the significant features of the game or play activity were determined by the researchers, continues in more recent structural studies of children's of children's play and games. The following studies employ a number of structural models, but all have in common the researcher's assumption the "the player's perspective and their own are one in the same" (Schwartzman, 1978, p. 259).

Johann Huizinga

The keynote presentation at the first annual meeting of TAASP was "The Johann Huizinga Address," presented by
anthropologist Edward Norbeck (1977). Norbeck emphasized Huizinga's role as a pioneer in the study of human play. In *Homo Ludens* (1938), Johann Huizinga "provided a richer working base" for a definition of play "than may be found elsewhere" (Norbeck, 1977, p. 19).

In his 1938 book, Huizinga, a Dutch historian, contended that play is necessary for the continued development of culture, as well as for human existence. He questioned the extent to which culture results from play, and examined the play forms of culture (not in culture) including play elements of ritual, law, war, politics, knowledge, poetry, myth, philosophy and aesthetics. In his conclusion, Huizinga stated:

> It has not been difficult to show that a certain play-factor was extremely active all through the culture process and that it produced many of the fundamental forms of social life. . . . We have to conclude, therefore, that civilization in its earliest phases, played. It does not come from play like a babe detaching itself from the womb; it arises in and as play and never leaves it. (p. 173)

Most importantly, Huizinga broadened the concept and definition of play, and emphasized that "in acknowledging play, you acknowledge mind, for whatever play is, it is not matter" (p. 3). The traits or characteristics of play which were described by Huizinga (p. 13) (in what has become the classic definition of play) were conveniently extracted and listed by Norbeck (1977) as follows:
voluntary, free, freedom
may be deferred or suspended at any time
not a task, not ordinary, not real
essentially unserious in its goals although often
seriously executed
outside the immediate satisfaction of wants and
appetite and the individual satisfaction of
biological needs
a temporary activity satisfying in itself, an
intermezzo or interlude, but an integral part
of life and a necessity
distinct in locality and duration
repetitive
closely linked with beauty in many ways but not
identical with it
creates order and is order; has rules, rhythm, and
harmony
often related to wit and humor but not synonymous
with them
has elements of tension, uncertainty, chanciness
casts a spell over us, is enchanting, captivating,
intensely and utterly absorbing, joyous, has
illusion
older than civilization or culture, it sub-serves
culture and becomes culture
outside the antitheses of wisdom and folly, truth
and falsehood, good and evil, vice and virtue,
has no moral function (Norbeck, 1977, p. 19)

Roger Caillois

In Man, Play and Games (1960), Roger Caillois
criticized Huizinga's emphasis on the competitive character
of play. The classification scheme Caillois proposed has
influenced many researchers. This scheme identifies four
types of play: agon (competition), alea (chance), mimicry
(simulation), and ilinx (vertigo). These forms are analyzed
along a continuum of "structuredness," from paida (spontaneous/
unstructured play) to ludus (highly structured/regulated play).
For example, Caillois classified pitching pennies as *alea-paida*, that is chance dominated by spontaneous activity. Chess was classified as *agon-ludus*, or competition dominated by rules. However, as noted in several sources (e.g., Denzin, 1977; Meier, 1986), Caillois confuses play with games in his typology, and many researchers have applied Caillois' game categories to elements of play (e.g., Mouledoux, 1977).

Both Huizinga and Caillois did not specifically study children's play, but their works have been very influential. Their theories assume the play/seriousness or play/reality dichotomy, as well as the self-evident nature of the elements or structures of play. These assumptions are characteristic of many structural studies of children's games and stories, and have only recently been questioned. And, despite many attempts, there exists no consensus on the definition of play (Schwartzman, 1978, p. 258).

F. Redl, P. Gump and B. Sutton-Smith

Stewart Culin (e.g., 1907) had delineated three classes of games: chance, dexterity and calculation. Decades later, Roberts, Arth and Bush (1959) proposed three basic types of games that were similar to Culin's: games of physical skill, strategy, and chance. Avedon and Sutton-Smith (1971) suggested that this classification omitted a large
group of children's games—central person games—which generally focus on arbitrary power (e.g., it games, Mother May I?).

Researchers Redl, Gump and Sutton-Smith (1971) have taken into account many other dimensions of games. In addition to defining types of power in games, the authors also described dimensions which take into account some controlling functions for rules, roles, interaction patterns, prescribed performances, procedures for action and spatio-temporal contexts. Games governed by ritual, fixed sequences rather than competition (e.g. ring-a-roses), are not covered by this elaborate classification scheme.

Some of the 30 dimensions of games outlined by Redl, Gump and Sutton-Smith include: (a) bodily activity (mobility and locomotion, manipulative opportunities, vocal expression); (b) competition factors (centrality of winning and losing, goal-directed vs. opponent-directed, self-enhancement vs. defeat of the "other"); (c) use of space; (d) time consideration; (e) prop usage; (f) role-taking factors; (g) volume and distribution of participation; (h) respite possibilities; (i) institutionalized "cheating;" (j) pleasure-pain content of winning or losing; (k) direct mirroring of life themes; and (l) challenges (i.e., purpose of actor and counter-actor).

Redl (1959) had earlier analyzed the circle game "beatle"
in terms of the dimensions he had developed with Gump and Sutton-Smith. He had been particularly interested in the therapeutic value of games. By analyzing the ingredients or dimensions of specific games, one could determine what those games allowed or demanded of the individual players. In this way, a therapist or teacher could determine which games were most suitable for the needs and capacities of different groups of children.

Redl's paper is a transcription of a discussion which occurred during a Macy conference on group processes. Participants criticized the tendency of this type of structural research to mix the researcher's and player's perspectives and analytic levels. Many participants offered their own structural analyses of beatle and games in general, which illustrated how categorization systems are often arbitrary (cited in Schwartzman, 1978, p. 260).

Studies related to the analytic approach of Redl, Gump and Sutton-Smith include Redl and Wineman (1957), Gump and Yueng-Hung (1954), and Gump and Sutton-Smith (1955a, 1955b). Avedon (1971) analyzed 10 significant game features which were similar to the Redl approach: purpose of the game; procedure for action; rules governing action; number of required participants; roles of participants; results or pay-off; abilities and skills required for action; interaction patterns; physical setting and environmental
requirements; and, required equipment. Sutton-Smith (1959a) similarly analyzed five basic features of New Zealand children's game "bar the door" (or "red rover") in terms of the game challenge, player participation, performance, spatial scene, and temporal structure.

Alan Dundes

Alan Dundes is one of the first anthropologists to provide structural analyses of children's games (Schwartzman, 1978, p. 261). Dundes' approach in "On Game Morphology: A Study of the Structure of Non-Verbal Folklore" (1964) is based on the work of Vladimir Propp (1928). Propp had analyzed 100 Russian fairytales and isolated 32 action elements, or "functions" (identified by a verbal noun), which were independent of the character(s) performing them.

In his article, Dundes identified the minimum structural units of both games and folktales as "motifemes" (i.e., certain ordered units of action). By comparing the motifemic units of verbal folklore and non-verbal folklore (games), Dundes found that in games, two sequences of action occur simultaneously, while in folktales just one action sequence occurs at a time.

As an illustration, he analyzed the game "hare and hounds," and identified four motifemes: lack, interdiction,
violation and consequence. In this game, the hounds wish to catch the hare who is hiding (lack) before he reaches "home" where he is "safe" (interdiction). If the hounds fail to catch the hare (violation), then they lose the game (consequence). A second, simultaneous motifemic sequence occurs from the perspective of the player who is the hare. The hare wants to go home (lack) and must come out of hiding and risk getting caught to get there (interdiction). If the hare is caught (violation), he loses (consequence).

Brian Sutton-Smith

In "A Structural Grammar of Games and Sports" (1975), Sutton-Smith used Piaget's concept of structures (which have the qualities of wholeness, self-regulation and rules of transformation) to propose a schema for the development of social interactional complexity in games and sports.

The author organized games and sports into three levels of social interaction that correspond to shifts in logical thought following several years later. Type A games (ages 4-5) are pastimes in which roles and actions are defined by traditional verses. Role/action reversals are a part of the games on this first level (e.g., ring-around-the-rosey).
Type B games (up to age 7) anticipate Piaget's stage of concrete operations, and are central-person games consisting of "primary interactions" (i.e., players act according to their own thoughts rather than to externally prescriptive statements). Type B games have two levels: level 1 games contain role-reversals (e.g., hide-and-seek); and level 2 games contain both role and action reversals (e.g., frozen tag).

Type C games (ages 9-12) anticipate the child's capacity for making multiple classifications. These games are competitive and are characterized by "secondary interactions" (i.e., interactions, such as signaling, are used to control the primary interactions of levels 1 and 2). Within this game type, level 3 games consist of the coordination of roles and actions (e.g., dodge ball), while level 4 games consist of coordination both within and between groups (e.g., capture the flag).

Type D games anticipate formal operations, and are sports activities characterized by "tertiary interactions" (i.e., specialized interactions and roles outside and within the playing group). Level 5 games contain external tertiary interactions (e.g., umpires, score-keepers, audience). Level 6 games also use coaches, referees, and so on, but in addition, the defense team exhibits internal tertiary interactions (e.g., pitcher, first baseman). Level 7 games
consist of both offense and defense teams which exhibit both internal and external differentiation (e.g., football).

Sutton-Smith applied the schema to games played in five non-Western societies in order to speculate about the evolution of games. He found a positive correlation between cultural complexity (based on Murdock, 1967) and the levels of games played by Mbuti Pygmies, Australian aborigines, Mackenzie River Eskimos, North American Indian villages, and Polynesians (cited in Schwartzman, 1978, pp. 265-267).

Helen Schwartzman

Helen Schwartzman (1983) recently suggested that an important way to classify or categorize children's play is to examine the differences between child-structured play and adult-structured play. The former play form focuses on what children play when they are literally "on their own," while the latter refers to play or games introduced and often supervised by adults, such as team games, sports, and board games. With few exceptions (e.g., Iona and Peter Opie, Dorothy Howard, Brian Sutton-Smith) researchers have not studied in detail the self-structured games and play of children. Instead, most studies focus on adult-structured play forms in laboratories,
schools, playgrounds, and so on.

Generally, child-structured play is characterized by: (a) child-child interaction in peer or multi-age groups; (b) more boisterous, seemingly chaotic, and sometimes dangerous activities; (c) egalitarian and cooperative behavior; (d) the minimal use of equipment; (e) the lack of restrictions on the time or place for play; and (f) resourceful, self-sufficient and self-managed behavior, which provides a context for the generation and expression of individual and group creativity.

In contrast, adult-structured play (which seems to occur more frequently in industrialized rather than non-industrialized cultures) is generally characterized by: (a) child-child interaction in peer groups with an interacting adult such as a coach, teacher or parent; (b) quiet, more orderly activities; (c) hierarchical and competitive behavior (dependent upon the cultural context); (d) the use and reliance upon some sort of equipment such as adult-designed toys, sports equipment and uniforms; (e) a dependency on specific times and places for play to occur; and (f) a sensitivity to group and hierarchical relationships as well as reliance on adult or leader authority.

Many parents and researchers believe that child-structured play is disappearing because of an emphasis on
adult-structured play. The belief is that children have lost the ability to entertain themselves, that passive diversions have replaced active ones and that traditional children's games are disappearing. Schwartzman pointed out that the evidence presented by Gomme (1894, 1898) and the Opies (1959, 1969) affirms the continued presence and elaboration of child-structured play in a society also characterized by a strong tradition of adult-structured games. Therefore, (at least in Britain), one play form hasn't cancelled out the other.

Schwartzman also discussed how Sutton-Smith's studies (e.g., 1951a, 1981) of the history of New Zealand children's play illustrate how adult-structured play can transform the character and frequency of child-structured play. These studies traced how adult-structured games, commercial toys and sports have contributed to the disappearance of New Zealand children's games, and how the impact of European games on Maori children's traditional games was reflected in the fact that organized sport cancelled out the "minor games" of Maori and European children. However, Schwartzman suggested that there most likely existed an "underground" of child-structured play not talked about by children and unseen by historical researchers such as Sutton-Smith.

These are some of the issues which can be explored by adopting this research perspective. Furthermore, by
focusing on child-structured play activities, researchers will expand the contexts in which play is studied:

I believe it is time for a new generation of child-structured play studies—-in the tradition of Dorothy Howard, Iona and Peter Opie, and Brian Sutton-Smith—-to be conducted. Researchers cannot remain in the school, playground, or laboratory when so much that is interesting and ingenious about play is happening in the streets, alleys, backlots and backyards of children's lives. (pp. 211-212)

Jean Piaget: Play is Characterized by a Disequilibrium Between Two Cognitive Processes

For Swiss psychologist Jean Piaget, play is a cognitive process. In Play, Dreams and Imitation in Childhood (1951) he described how intelligence develops from an internalization of adaptive action upon the environment. This involves two processes of cognition—-assimilation and accommodation. Assimilation is the process by which a child incorporates elements of the external world into his own schemata, thereby modifying the world to his own notions or mental set. Accommodation is the opposite process, by which a child modifies or adapts his own mental set to suit the demands of his environment, thereby changing his action.

The two poles of cognition, which are present in all action, may be in equilibrium or may predominate over one another. Imitative behavior occurs when accommodation predominates over assimilation. Play behavior occurs when
assimilation predominates over accommodation, or in other words, when reality is bent to fit one's existing forms of thought. Intelligent adaptation to the environment occurs when there is a balance of these two processes.

Sutton-Smith (1966a, 1971b) critiqued some of Piaget's ideas concerning play, and expanded these arguments in a 1983 publication. Essentially, Sutton-Smith disagreed with Piaget's conception of play as the predominance of assimilation over accommodation. He argued that Piaget's implicit copyist notion of imitation (whereby concepts are ultimately copies of an external reality) leaves play "intellectually functionless," since play "distorts reality" rather than copying it. This implicit copiest epistemology derives from Piaget's focus on directed intellectual operations (i.e., understanding how the physical world operates) rather than undirected ones (i.e., understanding imaginative thought). If there is an intrinsic relationship between play and thought, Sutton-Smith suggested that it would more likely be found in undirected thinking (e.g., reverie, creative imagination).

Also, for Piaget, play is useful only as a transient stage during the development of thought and eventually gives way to intelligent adaptations, thus making play useless for adults. However, Sutton-Smith argued that in adulthood play becomes differentiated in a variety of ways
and continues to have vital functions:

Without such a point of view it is difficult to understand the verbal play of adults, their social and sexual play, their rituals and carnivals, their festivals and fairs and their widespread and diversified playfulness. (Sutton-Smith, 1966, p. 334)

In a reply to Sutton-Smith, Piaget (1966) emphasized that he does not view knowledge as a copy of reality. Rather, the process of understanding transforms reality and assimilates it to schemes of transformation. Play, on the other hand, "deforms" and subordinates reality to the desires of the self. Therefore, with age, it is the "deformation and subordination of reality" that gradually diminishes in play (p. 339).

Sutton-Smith (1971b) replied to Piaget by arguing that Piaget's theoretical focus on adaptive cognitive structures at different age levels must always result in the subordination of imagination to reason. However, in "Piaget, Play, and Cognition Revisited" (1983a), Sutton-Smith emphasized Piaget's contribution to research on children's play:

To read Piaget was to receive the sudden gift that one's intuition about the primary importance of play and games to children and therefore to the study of childhood was not a totally deviant and trivial obsession. . . . What Piaget did at one stroke for psychology is what Huizinga. . . had done for history [and anthropology]. He suddenly made the subject of play a critical aspect of a major theory of human culture. It was no longer possible to be a concerned student of child development, or at least of cognitive development, without tackling this aspect of the Piagetian theory. (pp. 239-240)
Studies Exploring the Relationships
Between Play and Learning

Introduction

In addition to Piaget's research, there are other studies which examine the relationship between play and learning. Some of these studies investigate how play facilitates or generates changes in cognitive sets ("deutero-learning studies"). Other investigations explore how play facilitates/generates the learning of specific cognitive skills within a given cognitive set ("specific learning studies") (Schwartzman, 1978, p.272).

Lev Vygotsky

In "Play and Its Role in the Mental Development of the Child" (1967), L. S. Vygotsky, a Russian psychologist, described play as a transitional stage for the preschool child during which his relationship to reality is altered. When children play, "thought is separated from objects, and action arises from ideas rather than from things" (p. 546). This is a reversal of the child's relationship to the immediate, concrete situations of infancy. Thus, the crucial moment for the child is when "the stick becomes a horse, i.e., when the thing, the stick, becomes the pivot
for severing the meaning of horse from a real horse" (pp. 546-547).

In play, according to Vygotsky, the "semantic aspect—the meaning of the word, the meaning of the thing—dominates and determines behavior" (p. 547). He illustrated this type of play situation as an inversion of object/meaning to meaning/object. Similarly, when a child stamps the ground, pretending to ride a horse, he has accomplished the inversion of action/meaning to meaning/action.

For Vygotsky, the new relationships created in the play of preschoolers between meanings and objects, and meanings and actions, results in the creation of imaginary situations and leads to the development of abstract thought. His view of children's play contrasts sharply with Piaget's theory, which regards play as a distorting and compensatory activity.

Brian Sutton-Smith

In "The Role of Play in Cognitive Development" (1967), Sutton-Smith discussed how children adopt an "as if" attitude towards play objects and events by the time they become two years old. Furthermore, they continue "to 'conserve' imaginative identities through play in spite of contradictory stimuli" (p. 256). However, according to Piaget, children do not conserve class identities of phenomena
such as number and quantity before the age of five. Sutton-Smith suggested that if the "as if" attitude of play is regarded as a representational set, then the use of these sets in play most likely facilitates the adoption of representational categories on a conceptual level at a later age.

He tentatively concluded that play, games and cognitive development are functionally related. Play (as well as other expressive phenomena such as laughter, humor and art) produces a "superabundance of cognitions as well as a readiness for the adoption of an 'as if' set, both of which are potentially available if called upon for adaptive or creative requirements" (p. 258).

Sutton-Smith also discussed the cognitive consequences of play in *Play and Learning* (1979a). To play with something "is to open it up for consideration and for choice. Play opens up thought. As it proceeds it constitutes new thought or new combinations of thought" (p. 315). For the player, the emphasis on process, not product, allows novelty to occur, or put another way, "allows the kind of abstraction that permits flexible dallying and rearrangement of behaviors" (p. 315).

For example, a new game might introduce a child player into conventional sex-role or social behaviors for his or her age level. Even though this new frame, or
context, for the child might be an old one for the culture, the player is venturing into "new rule systems and new rule subject-matters that have not been a part of the child's accomplishment before-hand" (p. 315). The child is learning a new repertoire of negotiations, behaviors and ideas.

Thus, the major cognitive consequence of play for the player is an increase in his or her cognitive alternatives, as well as the flexible management of these alternatives. (Making alternatives possible where none are necessary is play's adaptive potentiation.) Of course, the number of alternatives and the amount of flexibility vary within the cultural system. Modern and complex societies seem to encourage play and make possible a greater variety of play experiences than more authoritarian and simple societies, where adult alternatives are more limited.

Susan Isaacs

British child psychologist and educator, Susan Isaacs (1930, 1933) provided some detailed early studies of intellectual and social development which have a similar view to that of Sutton-Smith. From her observations of young children's work and play behavior in a Cambridge preschool from 1924-1927, Isaacs found that young children's
thoughts were more competent and sophisticated than Piaget had later described them to be. She suggested that play is both expressive of children's concerns and also is a means of developing manipulative skills and the abilities to discover, reason and think. Furthermore, make-believe play permits the child to adopt an "as if" consciousness, and the symbolizations that occur in play help with the development of abstract thought.

Jerome Bruner and V. Sherwood

In "Peekaboo and the Learning of Rule Structures" (1975), psychologists Jerome Bruner and V. Sherwood discussed how infants learn the rules and range of variation within the rules of peekaboo. This article is based on an intensive laboratory investigation of the play of six mother-infant dyads over a period of ten months.

The researchers found that the basic rules which are learned by the infant are initial contact, disappearance, reappearance and re-established contact. With this basic rule context, the infant also learns that there can be variations in (a) degree and kind of vocalization for initial contact, (b) kind of mask, (c) who controls the
mask, (d) whose face is masked, (e) who uncover, (f) the
form of vocalization upon uncovering, (g) the relation
between uncovering and vocalization and (h) variations
in the timing of the constituent elements. According to
the investigators:

It is this emphasis upon patterned variation within
a constraining rule set that seems crucial to the
mastery of competence and generativeness. The process
appears much as in concept attainment in which the
child learns the regularity of a concept by learning
the variants in terms of which it expresses itself.
What is different in peekaboo is that the child is
not only learning such variants but obviously getting
great pleasure from the process and seeking it out.
(pp. 283-284)

D. F. Hay, H. S. Ross and B. D. Goldman

Psychologists Hay, Ross and Goldman (1979) also
examined social games in infancy for the Johnson and
Johnson conference on play and learning. They obtained
data from three separate studies of infant social behavior
with the mother, an adult stranger and a peer. Some of
the infant games which were observed included ball, stack
and topple, peekaboo, pat-a-cake, chase and gonna get you.
The researchers found four basic features which characterized
all the games observed in the studies: mutual involvement,
turn taking, repetition of a two partner sequence, and
nonliterality.

The investigators suggested that these games "provide
a rich learning situation for the infant and for his social
partner" (p. 94). For instance, in games children learn about the properties of the physical environment. In fact, pausing while the play partner takes a turn "helps the infant attend to the content of the other person's role, and thus learn from him what objects can do" (p. 94). Also, in games infants may learn interactive skills such as taking and yielding turns, understanding non-literal actions, creating abstract rules, and performing complex, hierarchical roles or reversing roles.

In a related article by Hildy Ross and Deborah Kay (1980), it was proposed that: (a) in games infants learn to involve and influence others; (b) learning the structure or rule-governed features of games introduces the idea that social interaction is rule-governed; (c) the non-literal use of actions in infant play may be a precursor to the non-literal use of actions in pretend play; and (d) infant games may facilitate language acquisition.

Specifically, language skills may be learned:

- in repeated game actions, in which prelinguistic infants enact semantic relations underlying language such as agent, action and object. Also, the entire context of repeated action may help children understand the language used in games. Finally, infants come to understand and use the interpersonal communication required to initiate and regulate games. (p. 30)

Jacqueline Sachs
Psychologist Jacqueline Sachs (1980) recently explored one way in which adult-child play might be involved in the acquisition of language structure and language use. Since one important way language is used in cognitive structures is in superimposing schemas on reality, Sachs proposed that in pretend play, parents may teach children something about how to use language to structure the world.

The investigator obtained data from transcripts of audiotaped interactions occurring over four months between the researcher (or her husband) and their 21-month-old daughter. She found that during play the parents' talk served as a narrative thread that connected the play actions of the child.

At first the parents' narratives during play helped supply the building blocks for a potential story, but the child never integrated the actions into a single episode. As the child's verbalizations became more complex (determined by measuring the mean length of utterance, or MLU) she began to impart greater animacy towards her play objects. Also, the parents' narrative behavior had changed from guiding the child's actions to describing the play object as if were animate. The parents' narration (a) established the "problem" for
the narrative, (b) encoded the child's ongoing actions (thus providing a more general statement about these actions), and (c) provided reasons for the child's ongoing actions.

The investigator concluded that the parents' comments in this study enriched the script of ongoing play episodes and provided a more rational structure for the child's actions. Sachs concluded that, "adult narration in pretend play sessions, along with other exposures to narrative style (for example in story books), may help the child to develop skills needed to create his or her own scripts" (p. 46).

K. Sylva, J. S. Bruner and P. Genova

The significance of play for the development of problem solving abilities has been studied by a number of psychologists, including Kathy Sylva, Jerome Bruner and Paul Genova (1976). The subjects of this experimental study--while, middle class, preschool children--were given a lure-retrieval task that involved attaching sticks together with "C" clamps to reach a piece of chalk in a box.

In one of the two experiments reported in this article, the children were divided into three treatment groups. The control group received a one-minute demonstration by an
adult who showed how to tighten a clamp on the middle of a long stick. One treatment group received a two-minute demonstration on how to make a long tool with the sticks and clamps. The other treatment group received the same demonstration but were also allowed to handle and play with the sticks and clamps.

The results indicated that children who had played with the materials prior to being presented with the chalk-in-a-box problem were more goal-oriented in their efforts. They gradually pieced together the solution and "were eager to begin, continuous in their efforts to solve the problem and flexible in their hypotheses" (p. 250). On the other hand, children who only observed the principle were less goal-oriented and "usually adopted an 'all-or-nothing' approach" (p. 250).

Based on their results, the researchers concluded that "the effect of prior play seems to be not only in combinatorial practice, but also in shifting emphasis in a task from ends to means, from product to process" (p. 256). Bruner (1975) also suggested that this research indicates that play facilitates the ability to solve problems by making possible the practice of subroutines of behavior.

Brian Vandenberg
Psychologist Brian Vandenberg (1980) questioned whether it was the play experience or the researcher's presence (and "hint-giving" assistance) that produced the observed effects in the Sylva et al. investigation (1974). To rectify some of the methodological flaws, Vandenberg conducted a similar problem-solving experiment, and found that "the play experience was more helpful for those children whose abilities were most commensurate with task demands" (p. 57). Six- and seven-year-old subjects had benefited most from the play experience, of all the subjects ranging from four- to ten-years-old.

Although future research on play and problem-solving should use different tasks as well as both familiar and unfamiliar experimental materials, Vandenberg concluded (on the basis of a number of lure-retrieval studies) that this research shows that through observational learning and play, an individual is likely to acquire a cognitive template of how an object can be used as a tool for the solution of a task. Through play, an individual develops a generalized model or schema of applicability, which is helpful for discovering novel, instrumental responses with the objects/tools needed to solve a problem (p. 60).

E. P. Johnsen and J. F. Christie
E. P. Johnsen and James Christie (1986) reviewed a number of recent psychological studies exploring the effects of play on young children's competence in the logical skill of conservation. Unlike the lure-retrieval problem-solving investigations, the research reviewed here focuses on whether play training (i.e., modeling sociodramatic play) affects intellectual development as measured by Piagetian problem-solving tasks involving conservation of number, volume, and so on.

In their interpretation of the literature, the authors found little evidence to suggest that play training alone facilitates young children's abilities to solve problems involving the logical thinking of conservation. They suggested that when play effects do occur, other sources of influence were at work, such as the social context, peer interactions and adult-child exchanges.

The authors also pointed out that the experimental research reviewed seems to be based on the tradition of Vygotsky, who regarded play as a means of aiding a child's construction of symbolic thinking no longer dominated by context or concrete objects. However, Piaget's contrasting view, that play, per se, does not result in new cognitive structures (but rather reflects emerging symbolic development) has not been challenged by the results of these investigations and remains a viable hypothesis.
Johnsen and Christie urged researchers to focus more on the consolidation of knowledge and less on the acquisition of new structures like conservation. However, they added that play in a broader sense "does not seem to be unrelated to other indices of cognitive functioning such as creative productions or nondevelopmental measures of intelligence" (p. 57). They further suggested that more illuminating studies of the relationships between play and cognition should look at a greater variety of play experiences, sample more widely from different populations, design assessment procedures more carefully, and separate effects of the context from play.

**J. L. Dansky and I. W. Silverman**

As mentioned by Johnsen and Christie (1986), creative productions may be used as another index of cognitive functioning. Creativity (or imagination), however, involves divergent thinking abilities or skills, while problem-solving involves convergent thinking skills. A number of experimental studies have investigated the relationship between play and creativity, including Jerome and Dorothy Singer (e.g., 1976) and their colleagues, who have conducted a series of studies to measure the imaginative predispositions of children, the relationship of
imagination to cognitive, affective and social skills.

The first systematic investigation of the relationship between play and creativity was conducted by Leibermann (1967, 1977), who developed a scale to determine the "playfulness" of young children. Playfulness was defined as a qualitative ingredient in play, made up of spontaneity, manifest joy and a sense of humor. Leibermann's theoretical model indicated the role of playfulness (and imagination) in cognitive, affective and social functioning.

Based on an earlier investigation by Brian Sutton-Smith (1967), researchers Dansky and Silverman conducted a number of experimental investigations utilizing an "alternate-uses" test of associative fluency (i.e., divergent thinking) (1973; Dansky 1980a, 1983, 1986). In their first experiment, Dansky and Silverman (1973) found that children who were allowed to play with common objects (paper towels, paper clips, screwdrivers and matchboxes) provided more alternate uses for objects (and also for objects not present in a 1975 follow-up study) than children who did not play with the objects. Similar results were obtained when Dansky (1980a) classified children into "non-pretenders" and "pretenders" (based on whether or not make-believe was spontaneously displayed).

Serious questions about this line of research were
raised, however, when Dansky (1983) interposed a brief digit-span memory task between the play period and associative fluency task. In this experiment, the play group performed no better than the control group. What seems to have occurred in these experiments was that the subjects' play attitudes toward the creativity test influenced the results by providing flexibility and by contributing to a temporary generalized schema for the experimental task.

Finally in a socio-dramatic play training study, Dansky (1980b) found that over time children receiving training increasingly engaged in imaginative play during free-play periods, and also scored higher on all administered measures of divergent thinking. However, the way play contributes to divergent thinking productions still remains unclear.

David Lancy

There are few studies of non-Western societies which investigate how play and games contribute to the development of general or specific cognitive skills. David Lancy (1971) examined how riddles reflect the cognitive skills involved in problem-solving in Kpelle society. Kpelle riddles have no "right" answer— the correct answer is the one which seems most erudite and convincing as determined by consensus.

Lancy adapted a traditional Western problem to a Kpelle
situation, so that the "answer" could be determined by applying a stated, arbitrary rule provided in the riddle scenario. The researcher found that only people who had been exposed to Western schooling applied the arbitrary rule when solving the riddle. Those who had no such education ignored the stated rule and, in the traditional way, composed lengthy and complex answers based on their own experiences.

The author implied that neither approach to problem solving is more "intelligent" than the other. He also believed that, economic and social factors aside, the change over to Western cognitive systems is partly responsible for the large drop-out rate in Liberian schools (cited in Schwartzman, 1978, pp. 280-281).

**Eleanor Lealock**

In her excellent brief ethnography of urban Zambian children's play activities, Eleanor Lealock (1971) discussed the potential of play for curriculum planning. She noted that the current authoritarian Western education, which stresses rote learning, has minimized the more traditional modes of learning through direct observation and experimentation. Lealock illustrated how the daily play activities of Zambian children indicated their familiarity with certain
concepts. Children's abilities to solve problems involving volume, area and linear measurement were evident in their water play with tin cans, or in their ingenious ways of constructing toy objects.

Lealock proposed adapting children's play interests for classroom use. For example, building toy cars (made of wire and shoe polish tins) could provide a basis for classroom lessons exploring the use of proportions, spatial relationships, symmetry and measurement. Or, the game nsoro (in which stone counters are moved along rows of holes) could be used to introduce concepts of number, and the operations of addition and subtraction. In this respect, play--under adult guidance--could be viewed as generative as well as expressive of cognitive skills.

Studies of Children's Speech Play

Introduction

There is considerable variety in the forms of children's speech play. These forms may include secret languages, verbal dueling, riddles, puns, vocabulary games, narratives, jump rope rhymes, counting-out rhymes, tongue twisters, word puzzles, nicknames, curses and obscenities.
Anthropologists have generally neglected the study of non-Western children's verbal play, although there have been some descriptions in the folklore literature (Schwartzman, 1978, p. 283). There are several significant ethnographic investigations of speech play by anthropologists and psychologists in *Speech Play* (1976b), edited by Barbara Kirschenblatt-Gimblett. These reports use linguistic or sociolinguistic models that focus on the study of texts in context. Schwartzman (1978) reviewed a variety of investigations of children's verbal play in Western and non-Western societies, many of which have been included in this section.

**Ruth Weir**

Although psychologists have been increasingly investigating language acquisition, there are relatively few studies on the speech play of very young children. Russian poet Kornei Chukovsky (1963) provided a detailed examination of the verbal play of two- to five-year-old children. Catherine Garvey (e.g., 1977) also presented an analysis of the development of American preschool children's solitary and social play with sounds and linguistic forms. Helen Schwartzman (1978) also reported observing speech play among Chicago preschool
children that involved the repetition of phrases with noun substitutions ("name games") (p. 289).

Linguist Ruth Weir conducted a detailed examination of the speech play of her 2½-year-old son, Anthony, in _Language in the Crib_ (1962). She explained that "the child's language is studied as a self-contained system under special circumstances, namely, just before he falls asleep at night, and his linguistic system at the time can be called his own 'idiolect'" (p. 104).

Weir found that "the pleasure of play is structured so that it serves as a systematic linguistic exercise," and that the role of content is subordinated to linguistic form (p. 105). For example, "Babette/ Back here/ Wet" and "Daddy dance" are simple examples of Anthony's sound play involving alliteration and rhythm (pp. 105-106).

Next to sound play, Anthony enjoyed substituting words "in one slot of the grammatical frame" (e.g., noun substitution, pronomial substitution, verb substitution, plural formation). For example, an exercise in noun substitution is evident in the following monologue:

(1) What colour
(2) What colour blanket
(3) What colour mop
(4) What colour glass (p. 106)

The primary function of this paragraph, according to Weir, "is pattern practice, sound play being relegated only to
the selection of items within the form class to be substituted" (p. 106).

M. Sanches and B. Kirschenblatt-Gimblett

In "Children's Traditional Speech Play and Child Language" (1976), M. Sanches and Barbara Kirschenblatt-Gimblett presented a comprehensive survey of children's speech play in English. They also discussed the characteristics of a child's developing language system and analyzed young children's speech play from the perspective of their language structure.

According to the authors, compared to adult verbal art, features of young children's language structure include: (a) a lesser degree of syntagmatic development; (b) an underdeveloped semantic system of classification; and (c) the relatively increased importance of phonological structure, which "may be the strongest influence on the shape of early preferred speech play forms" (p. 92).

They illustrated the phonological features of children's language with examples of gibberish (i.e., purely phonologically formed sequences which never make grammatical or semantic sense), and examples of play with homonyms (in the form of "incidental similarities" and imperfect puns). However, they emphasized that:

The foci of children's speech play, that is whether
the form is dominated by phonological, grammatical, semantic or socio-linguistic concerns, reflect an exercise on whatever part of the language structure the child is currently mastering. Accordingly, different levels of the language structure are "played with" in the different instances. (p. 96)

Based on data collected from children in Austin, Texas, Sanches and Kirschenblatt-Gimblett were able to trace and illustrate the development of formal features of speech play occurring as a child's language acquisition shifts from the phonological to grammatical, to semantic, and finally to sociolinguistic concerns.

For example, children under five years of age enjoy gibberish. From five to seven years, they enjoy simple, short verses that play with phonological relations. By age eight, children start to play with social rules while still focusing on simple verses. This trend continues until about age eleven, when there appears some play with semantic relations (especially antithesis and longer utterances). By this age, children also like parody rhymes based on sex themes, and social parodies of adult productions.

**Bambi Schieffelin**

Bambi Schieffelin (1982) illustrated the sound play of young Kaluli children of Papua, New Guinea, and discussed why this type of verbal play is discouraged by
adults. The author presented the text of a playful verbal exchange between two young girls (ages 30 and 45 months), and described how:

The two little girls started out playing with the words used to signal the openings and closings of talk, correctly sequenced, and then jointly renegotiated the sequence into one of play with sounds. They cooperated for 25 turns, signaling their on-going agreement to maintain this play/speech activity using features of pitch (high voice), prosody (exaggerated intonation), and timing (shortened within pair turn intervals). (p. 163)

The sequence was abruptly stopped by one mother who said in a loud authoritative voice "wa! try to speak good talk! this is bird talk!" (p. 163). This response, (consistent with that of other Kaluli mothers in similar situations), does not have to do with annoyance at the noise, but rather has a cultural and symbolic basis.

For these egalitarian people, language is an important means of social control, and they have specific expectations about how language is to be spoken. As a result, mothers try to instruct children to use "hard language," which is well-formed and socially-appropriate speech. (A young child's language is considered "soft" or not well-formed.) Kaluli parents do not use baby talk and have no lexical item for sound play, which they group with babbling and regard as serving no purpose.

Also, birds and children are connected in a number of symbolic ways: (a) Kaluli feel that if young children
eat certain pidgeons "they too would only coo, and never learn hard language;" (b) the high pitched and repetitive calls of certain fruit doves are regarded as similar to the whining voices of small, hungry children; and (c) Kaluli believe that upon death, a person's soul becomes a bird (p. 164).

This means that children must not only avoid eating certain birds, they must not sound like them either, even in play. Mothers discourage their children from emulating or imitating qualities associated with certain birds... To ensure that "hard language" develops... she terminates the sound play. (pp. 164-165).

Martha Wolfenstein

Martha Wolfenstein's *Children's Humor: A Psychological Analysis* (1954) is considered a classic developmental study from a psychoanalytic perspective of children's joke preferences and performances. For the study, she interviewed 145 children, mainly from Jewish professional families, and focused on developmental changes in: (a) form and style of the joke; (b) the "joke facade" (whereby the skill of indirect expression separates narrator and joke characters); (c) type of word play; and (d) the ability to discriminate between joking and nonjoking intercourse.

Wolfenstein found that children under age six improvise jokes that focus on the ambiguity of words, especially as
expressed in proper names), switching the references of proper names, and reversing gender. At age six a latency period has begun, during which children acquire joking riddles. These are short verbal formulas usually presented in a question-answer format (e.g., "Why did the . . . ? Because . . ."). By ages 11 or 12, jokes become more anecdotal and the emphasis shifts to the joke presentation as children develop their narrative skills.

Kathleen Alford

Kathleen Alford (1981, 1983) has examined the structure of joking relationships in American society. In "Privileged Play: Joking Relationships between Parents and Children" (1983), Alford reported that of the university students participating in the questionnaire/interview study, the majority of those who were also parents indicated that they engaged in joking relationships with their children.

Most of this joking was asymmetrical: "most parents reported teasing their children more, and teasing in a more licentious manner than they thought their children teased them" (p. 176). Alford suggested the differences in authority between parents and children might contribute to the asymmetrical joking relationships. She also noted that the American norm of joking between parents and children
is extremely rare cross-culturally, where joking relationships and parent-child relationships are more formal.

The results of this investigation did not support Radcliff-Brown's (1952) belief that joking relationships function as a mechanism for the indirect expression of hostility. Rather, the results supported the researcher's contention that joking relationships are a form of play and, as such, are intrinsically rewarding. Furthermore, joking relationships are characterized by a high degree of intimacy and frequent contact, and the rules governing the interaction are culturally patterned.

Brian Sutton-Smith

In "A Developmental Structural Account of Riddles" (1976a), Brian Sutton-Smith explained that he had hypothesized some years earlier that riddles would appear cross-culturally in contexts in which children were required to be attentive and responsive to this type of quizzing. A subsequent cross-cultural study by Roberts and Forman (1971) had confirmed this hypothesis. Riddles were found to exist in cultures where rote learning was emphasized, as well as oral interrogation by authority figures. Thus, Sutton-Smith believes that riddles are fun for children because their incongruities safely model
the larger process of adult interrogation and ambiguity.

Sutton-Smith collected riddles from a large sample of rural Ohio children and found seven types of riddles characterized by "specific semantic devices that give the riddler the material for this exercise of arbitrary power in the rhetorical context" (p. 113).

For example, pre-riddles are actually non-riddles, and are preferred by many younger children, for whom the riddle is a puzzling question with an arbitrary answer (e.g., Why did the man chop down the chimney? He needed bricks).

Implicit reclassifications (or homonymic riddles) form the largest class of children's riddles from grades one through seven. In these riddles, a word (or term, or letter) is presented in one way, and then implicitly reclassified in some other way so as to produce an anticlimax (e.g., Why did the dog go out into the sun? He wanted to be a hot dog).

Other types of riddles described in this article are: riddle parodies (e.g., Why did the chicken cross the road? To get to the other side); inverted relationships (e.g., What does on flea say to another as they go strolling? Shall we walk or take a dog?); explicit reclassifications (or homonymic opposition riddles) (e.g., What has an ear but cannot hear? Corn);
classification on the basis of noncriterial attributes (e.g., What is white inside and red outside? An apple); and, multiple classification (e.g., What is the difference between a teacher and an engineer? One trains the mind and the other minds the train).

J. Sherzer

Play languages (or secret languages, secret codes, disguised speech, pig Latin) are "a type or subclass of speech play. They typically involve the creation of a linguistic code based on the language usually employed by the participants and derived from the language by a series of definable rules" (Sherzer, 1976, pp. 19-20). Play languages are used by children as a way to exclude adults and to reverse the normal status hierarchy by making the children the 'in-group' and adults the 'out-group' (Schwartzman, 1978, p. 292).

In an article by Sherzer (1976), examples of play languages from three different speech communities (Cuna, French and Javanese) were examined in order to discover: (a) the kinds of linguistic rules used to generate play languages; (b) the relevance of play languages to theoretical linguistic concerns; and (c) "what play languages reveal about the ethnography of speaking and sociolinguistic
patterns of a community" (p. 20).

Some of his findings were: (a) the common social function of play languages is concealment; (b) young children typically utilize play languages; (c) play languages typically involve one, two or three rules (which may be complex); and (d) play languages may also have a role in language learning, in addition to being socially fun.

Sherzer identified five Cuna play languages which are not used for concealment, but rather are linguistic play for play's sake. He gathered his data on two islands in San Blas, Panama. One play language, "talking backwards," involves taking the first syllable of a word and placing it at the end of that word. Thus, ipya ("eye") becomes yaip (p. 21).

Another Cuna play language is "concealed talking," in which a particular sound sequence (pp plus the vowel of the preceding syllable) is inserted in each syllable after the initial consonant-vowel sequence. For example, merki ("North America") becomes mepperkippi (p. 27).

Another form of talking backwards is not based on the syllable, but rather on the vowel. The transformation rule is simply that every vowel becomes an "i". Thus, pia ("where") becomes pii (p. 28).

Sherzer also described two variants of a complicated
French play language, and seven Javanese play languages of increasing complexity. Sherzer found that all play languages were derived colloquial varieties of the language spoken in each community. In one case, French talking backwards (which is based on an extremely colloquial slang of adolescents) becomes a double code when used by French gangs, because many source words are in an argot limited to that gang.

Connie Leventhal

Another form of speech play, referred to as verbal dueling, involves the exchange of ritualized insults "to establish a hierarchy, albeit a temporary and playful one" (Kirschenblatt-Gimblett, 1976a, p. 205). Verbal dueling has most frequently been reported to occur among adolescent males, and there are some significant reports available, including Abraham's (1962) study of "playing the dozens" in American black communities, and Labov's (1974) sociolinguistic analysis of "sounding" (or, "the dozens") as a speech event in the Black English Vernacular.

Connie Leventhal (1981) also investigated the use and reinterpretation of traditional forms of Afro-American speech play in an integrated school setting. She found
that white, third grade boys adapted the black students' form of verbal dueling (or sounding), and referred to it as "cutting up." However, an important difference between cutting up and sounding was that the play element (which is an important part of sounding) became lost in the adapted form. The white children interpreted the game in relationship to the literal meaning of the exchange and the game became a mode of argument rather than a test of verbal wit.

A. Dundes, J. W. Leach and B. Ozkök

Dundes, Leach and Ozkök (1970) examined the strategies used by Turkish boys (ages 8-14) in verbal dueling rhymes. This traditional form of ritual insult exchange "depends upon an individual's skill in remembering and selecting appropriate retorts to provocative insults" (p. 326). The main goal is to force one's opponent into a female, passive role: "This may be done by defining the opponent or his mother or sister as a wanton sexual receptacle" (p. 326).

Stylistically, the retort must end-rhyme with the initial insult. Usually, there are specific traditional rhymed retorts for insults, and it is to an individual's advantage to memorize as many of the traditional retorts as possible. Failure to respond in rhyme, or not answering
at all, is essentially an admission that the individual "is reduced to the female receptive role" (p. 327).

In addition to analyzing texts typical of the duels, the authors proposed that Turkish male verbal dueling, which usually begins at an age just after circumcision, serves in part as a kind of extended rite of passage because "the duel allows the young boy to repudiate the female world with its passive sexual role and affirm the male world with its active sexual role" (p. 327).

G. H. Gossen

In "Verbal Dueling in Chamula" (1976), Gossen analyzed "truly frivolous talk" in a Mayan community in southern Mexico. Truly frivolous talk, which is one of five subgenres of Chamula "frivolous language," is a verbal game in which two players, usually adolescent males, exchange from two to 250 verbal challenges in front of an audience of other males, who encourage the players with their laughter.

In this article, Gossen presented a verbatim text of a lengthy duel which occurred during a fiesta. The winner was the one who said the last word (the loser couldn't answer the challenge). This example illustrates how consecutive items in a duel series must have semantic and phonological continuity. Gossen explained:
Verbal dueling is based on a minimum sound shift from word to word or phrase to phrase combined with a maximum derogatory attack on the opponent. The subtler the sound and semantic shift required to throw the opponent's challenge back at him, the better the performance. (pp. 129-130)

In these exchanges, which are stressful for young Chamula males, two themes prevail: "social immaturity and the prospect of bad affinal relationships which they will experience as adults" (p. 129). In order to play in the duel the participants pretend (a) a brother-in-law tie, (b) the sexual availability of one's female relatives, and (c) homosexual familiarity. These themes and roles played in truly frivolous talk are important because "by laughing at images of imperfect adult male behavior, Chamula males uphold and defend what a proper adult male should be and emphasize the inevitable stresses and points of ambivalence which men feel in Chamula society" (p. 141).

Gossen concluded that mastery of truly frivolous talk is important to the socialization process in general, and to learning language in particular. Children as young as two or three years manage some phonological sound shifts when trying to challenge older male siblings. By age five or six (the level of Gossen's proficiency) children are more proficient at making accurate sound shifts with some semantic continuity, but these sequences are usually carried out by rote rather than by improvisation. For
adolescents, verbal dueling represents an intermediate stage in the acquisition of adult linguistic competence.

**Summary**

Using linguistic metaphors, many anthropologists since 1950 have assumed culture (and hence, play) is found in the mental structures of their informants. Only a few studies have focused on the players' perspective to establish structural criteria. Most structural studies of play or games have focused on external criteria. Play elements (or game dimensions, or significant features) are formulated by the researcher.

Studies of cognition in psychology overlap with some structural analyses in anthropology, and a number of investigators have considered aspects of the relationship between play and learning both specific and general cognitive skills. The few studies of play and learning in non-Western societies regard play only as expressive of cognitive skills.

Many analyses of children's verbal play by anthropologists and psychologists have utilized sociolinguistic models which focus on the relationship between sociocultural contexts and the texts (or forms) of verbal play events.

All of these investigations regard play as residing in the mind. Play is also regarded as a cognitive activity
activity that may express or influence certain cognitive skills. Generally, the texts of play events are analyzed by structural/cognitive researchers, but when considering cognitive functions of play, the context is emphasized (Schwartzman, 1978, pp. 299-301).

Sutton-Smith (1980) has pointed out that an important issue arising from studies that view play as structure (which is the oldest tradition of play analysis):

has to do with the distinction between structures as rule descriptions of a state of affairs, and structures as kinds of operations which describe how the players make their play transformations. One may thus distinguish between those who see play as a template of culture and those who see it as a kind of transformational competence. (p. 10)

He also notes that "it is the current vogue to show just how flexible, facile, and paradoxical players can be in their structures, their joking, and their confusions of meta-language and object language levels" (which is the focus of the final section of this review) (p. 10). However, Sutton-Smith believes that both kinds of structure probably exist.
Ecological Studies of Children's Play

Introduction

Since the 1930's some researchers have taken an ecological perspective towards understanding children's play behavior. Ecological studies are usually observational or experimental and are concerned with the relationships between play context variables (e.g., toys, equipment, materials, settings) and children's behaviors (Schwartzman, 1978, p. 307). The underlying assumption of ecological theories of play behavior is that play settings possessing similar attributes will elicit similar play behavior responses from different individuals (Levy, 1978, p. 124).

M. Parten

Many ecological studies focus on how play with various materials and toys affects children's behaviors. For example, Van Aalstyne (1932) reported age and gender preferences of 112 preschool children for specific toys, as well as the degree of cooperativeness and attention spans associated with play with different toys. Updegraff and Herbst (1933) noted that more cooperative behaviors accompanied play with clay than with small blocks. These early studies contrast with more current psychological
investigations which have considered, for example, the relationship between fantasy (Pulaski, 1970), or symbolic transformations (pretending) (Fein, 1975, 1979), and play with different types of toys.

Parten (1933) conducted a study (which is often referred to and considered a classic in psychology) using a one-minute time-sampling technique to investigate the choice and use of play materials by American preschool children. The complexity of the social responses to particular play activities was determined by assigning numerical values in the categories of cooperative play, associate play, parallel play, onlooker behavior, solitary play and unoccupied behavior. Among her conclusions were:

1. Preschool children most frequently play in groups of two.

2. The size of play groups increases with age.

3. House and dolls elicit the most highly cooperative form of play, whereas sand play and constructive work with clay, beads and paints involves the children in parallel and generally nonsocial play.

4. Playing house and dolls elicits the most complex social responses. Play with trains elicits the least complex social participation responses (p. 95).
Patrick Doyle

Many studies have investigated variables such as activity settings or environmental complexity and their effects on social/play behavior of children. Johnson (1935) observed the effects of minimally- and extensively-equipped playgrounds on the social interactions of children. Also, Gump and Sutton-Smith (1955a) compared the social interactions of boys (ages 9½-11½) in two summer camp "activity settings:" swimming and crafts. Gump, Schoggen and Redl (1963) reported that the settings of home and camp affected the kinds and amount of play behavior and social interaction of one boy. In an experimental study, Ellis and Scholtz (1977) found that setting complexity (in terms of the number and variety of play objects and equipment) negatively correlated with peer interaction. Children played more with toys and less with peers in the high-complexity setting than children in the low-complexity setting. However, in both settings over time, attention increasing shifted from the play objects to play with peers.

Patrick H. Doyle (1977, 1978) recently conducted an investigation which utilized the concept of an "ecological niche." Doyle explained that in ecology, "a niche is that part of the environment which is necessary for a species' or organism's survival," and that too many occupants of
a niche are likely to become competitive and antagonistic. Doyle conceptualized preschool play activities as containing props with varying numbers of niches.

Using videotaped chronicles of 20 children attending Wayne State University Preschool, Doyle found 66 different play activities, and he classified the large-muscle ones (as opposed to fine motor activities) into single- and multiple-niche activities or props. Multiple-niche props allow for two or more children to play concurrently, and included a teetertotter, jungle gym, long jump rope, and the activity of playing ring-around-the-rosy to recorded music. Some of the single-niche props or activities, which could only be played with by one child at a time, included tricycles, a rocking horse, a slide and short jump ropes.

The investigator reported the effects of niche size on the following six dependent variables:

1. Sociality: Children in multiple-niche settings tended to be more social. Play in single-niche settings tended to be more solitary.

2. Social arousal: Single-niche activities resulted in more intense social responses (i.e., fighting over props).

3. Positive emotional tone: Multiple-niche activities elicited more pleasurable social responses from the children.

4. Prosocial behavior: A preponderance of behaviors
such as cooperation, friendliness and helpfulness, occurred in multiple-niche settings.

5. Morality: Based on Kohlberg's (1963) concept, children's prosocial behavior (such as sharing) which was demanded by an adult, occurred in single-niche activities more often (where sharing or taking turns would be at a personal loss).

6. Anti-social behavior: Behaviors such as quarreling or fighting occurred more frequently in single-niche settings, where there was more rivalry for the play prop(s) (Doyle, 1977, pp. 201-203).

The author suggested that in order to teach children to get along with one another, the preschool curriculum should be evaluated in terms of the presence of activities which are likely to result in undesirable or antisocial behaviors. However, in her review of Doyle's study, Helen Schwartzman suggested that competition is a social fact in American society, and that "a reduction in settings that encourage this behavior (while pleasing to teachers and reformers) is not (at least, not at this point) in tune with cultural realities" (1978, p. 305). Doyle further discussed the tendency for specific activities to engender antisocial behavior in his 1978 article.
Regina Weilbacher

Regina Weilbacher (1981) recently examined the effects on a group of Ohio kindergarten girls' social and motor behaviors of static and dynamic play settings. The results of Johnson's (1935) early study and the research of Ellis and Scholtz (1977), indicated a tendency for simple play environments "to be quickly drained of their challenge. Children abandon the equipment and seek stimulation through interaction with other children" (Weilbacher, 1981, p. 250).

This study similarly focused on environmental complexity, based on the dimension of "loose parts," or movable equipment. The static and dynamic play settings had the same play equipment: a trestle with a ladder attached on one side, and a slide (board) attached on the other side. However, in the dynamic setting, the children could move the equipment, while in the static environment the equipment was secured and had to remain stationary.

The researcher found that the simpler, static environment elicited a wealth of unique locomotor movements--the children creatively searched for novelty by moving on the equipment in unique ways. They also practiced skipping and cartwheels when off the equipment. Also, there was more cooperative behavior off the equipment and the children
spent much of their time playing traditional and original games and engaging in sociodramatic play that was not focused on the equipment.

The more complex dynamic environment made available an array of apparatus-oriented behaviors. In this environment, there was more cooperative behavior with the play equipment, and the children spent a lot of time negotiating and developing ideas for using the equipment and putting them into action. The children also engaged in a greater variety of sociodramatic play themes in the dynamic environment.

Weibacher concluded that both environments provide valuable experiences for children. It is more useful to consider them as complements to, rather than substitutes for, one another (p. 256).

W. W. Anderson


The primary unit, the extended family, consists of
both consanguinal and affinal kin of several degrees of collaterality who live in the same house or adjoining houses. The houses in Ban Klang are erected on pilings and stand at least five feet above low earthen platforms, built up to resist flood waters that are present four months a year. This raised area under each house is the year-round center of household work and leisure activities. There is also a school playground and three home playgrounds.

The children's play and games are transmitted through peer group learning, and game equipment is almost always made by the children. Game-playing choices, however, involve a "complex balance of decisions among various sociocultural and environmental, or ecological variables" (p. 168). For this study, Anderson equated these environmental factors and sociocultural factors to, respectively, Goffman's "natural frame" and "social frame" of an event.

The annual seasonal cycle determines the selection of specific games. Both the monsoon rains (from August to October) and tidal flood periods (from November to February) flood the children's playgrounds. During these months children are limited to "Spatially Restricted Games" (p. 169). (The author's categories of Spatially Restricted and Spatially Unrestricted games were not verbalized by the children, but were recognized by them as influencing their behavior.)
Another independent variable, the natural environment, provides game equipment for nearly half of the 69 games in the Ban Klang repertoire:

Children's acquisition and adaptation of plant and animal species into game pieces are closely associated with their knowledge of the hamlet's terrain and the habitat and life cycle of the species. The season each species appears determines the season of the game that utilizes that particular game piece or pieces. (p. 170)

For example:

Fighting Fish is played after the flood water recedes and fighting fish can be located and caught in ponds and ditches. Cockfights, played with grass buds which somewhat resemble the heads of fighting cocks, can be played only during the Bermuda grass budding season. The season for the Ban Klang version of Cherry Pits (or Draw the Line) is after the Minusop fruits ripen. After the fruits are eaten, the seeds are saved for that game and for another games called The Scoop. (p. 170)

Other variables affecting game-playing choices include: cultural value (krenchhai, or consideration for others' needs and feelings when the flood periods restrict children's play space); playgroup structure (which differs at home and at school); sexual division of play behavior (a large percentage of games are exclusively girls' or boys' games); playgroup social hierarchy (high status players, who make the decisions, are the oldest players); number of players (games chosen must accommodate younger sibling players); symbolic cultural content ("playing becomes 'more fun' when the cultural content and atmosphere of the game can
closely simulate an immediate, real or lifelike event); situational suggestibility (certain play activities correlate with the occurrences of specific cultural events in the different seasons); playtime availability (certain games are very complex and require a long period of playtime); school calendar (time is limited during the school year for play); and, game equipment (the presence, absence, size or quantity of equipment required for some games determines where they may be played) (pp. 170-174).

The author concluded that "it is through this constant interplay between children's play behavior and the ecological and sociocultural aspects of the group's environment that Ban Klang children's play life has been and is being created and shaped" (p. 175).

Summary

The studies described in this section are examples of an ecological approach to understanding children's play and games. Since the 1930's, the focus of the research has generally shifted from a consideration of the effects on behavior of specific toys and materials, to exploring the effects of play setting complexity, and, in one case, to investigating the effects on game choices by the interactions of environmental and sociocultural variables.
Some of these studies have raised questions such as (a) whether more complex play settings interfere with social development, (b) whether play materials and equipment should be used to direct the social development of children towards specific ends, and (c) whether the use of minimally-structured, ambiguous toys should be encouraged in order to produce more imaginative play actions (Mergen, 1978, p. 204).

However, many of these studies are only indirectly related to play. The observed behaviors in some of the studies may or may not be "play," but actually daydreaming, exploring, negotiating, and so on. These behaviors are subsumed under the label "play" because the subjects are handling play objects or interacting in a play environment (Schwartzman, 1978, p. 307).
Studies of Children's Play from an
Ethological Perspective

Introduction

Children's play has also been investigated using ethological methods. Ethological studies of both humans and animals combine an evolutionary approach with an objective orientation in order to investigate the function of a behavior in its naturally occurring social and ecological context. So that interspecies comparisons may be made (particularly between nonhuman primates and humans), ethologists record observable (i.e., anatomical) features of behavior. In this way ethologists attempt to objectively define and test the validity of particular categories of behavior, and to generate hypotheses concerning causation and function of these behaviors (Schwartzman, 1978, p. 308).

N. Blurton-Jones

In a pioneer study, Blurton-Jones (1967) set the pattern for the field of human ethology. He applied the methods of ethology to English children in a nursery school setting, and observed that the patterns of chasing
and fighting play were almost identical to the "rough-and-tumble" play of rhesus monkeys, as described by Harlow and Harlow (1962).

Blurton-Jones found that the human rough-and-tumble play consisted of a cluster of seven highly correlated motor patterns, which he called "fixed action patterns:"

- running, chasing and fleeing;
- wrestling;
- jumping up and down with both feet together ("jumps");
- beating at each other with an open hand without actually hitting ("open beat");
- beating at each other with an object but not hitting;
- laughing. In addition falling seems to be a regular part of this behavior. (1967, p. 335)

On the surface, rough-and-tumble play motor patterns appear very hostile (e.g., violent pursuit, assault, fast evasive retreat). In fact, sometimes children respond (by fleeing) as if it were really hostile, and sometimes play fleeing becomes real fleeing. However, unlike agonistic behavior, in rough-and-tumble play: (a) the roles of the participants rapidly alternate; (b) the play behavior doesn't lead to capture of objects; and (c) participants stay together even after the chasing ends. Thus, according to Blurton-Jones, "beating with clenched fist occurs with fixating, frowning, shouting, and not with laughing and jumping." On the other hand, "wrestling and open-handed beats occur with jumping and laughing and not with frown, fixate and closed beat" (p. 358).

In a later study (1972a), Blurton-Jones found similar
clusters of motor patterns (again with British preschool children). In addition, he discussed the influence of age, sex and familial variables on rough-and-tumble play behavior.

Owen Aldis

An example of a study which builds upon and expands the work of Blurton-Jones is Owen Aldis' book, Play Fighting (1975). The researcher collected data on this form of human play by inconspicuously filming children playing at parks, pools and beaches in a suburban community south of San Francisco.

His descriptions of rough-and-tumble play include: (a) wrestling for superior position; (b) fragmentary wrestling, hitting and kicking; (c) swimming pool play; (d) chasing; and (e) vestibular reinforcement (e.g., slides, swings).

Aldis also compared human and animal forms of play fighting in an attempt to tentatively determine what might be innate components and what might be uniquely human (i.e., learned) components of play fighting. For example, laughter and elements of the play-chase appear to be innate. However, mouthing, which is an almost universal response in play fighting of carnivores and
primates, is entirely absent in humans "and is probably related to the disappearance of biting as a serious form of human attack" (p. 274). There are also similarities in wrestling and other forms of play fighting, including low-intensity participation, use of play signals, role reversal, and the stronger player handicapping himself.

P. K. Smith and K. Connolly

Smith and Connolly (1972) also presented information on the play behavior of British preschool children in ethological terms. Behaviors during free play were recorded in terms of facial expressions, body posture, motor patterns and vocalizations. Play was defined as occurring when a child handled a play object or engaged in fantasy play.

They examined the behaviors in relation to other factors such as age, sex, family structure, and environmental settings. Some of their findings included: (a) older children more often engaged in talking and social play; (b) girls more often engaged in talking and sucking behaviors; (c) boys more frequently engaged in rough-and-tumble play; (d) running, laughing and rough-and-tumble play occurred more frequently outdoors than indoors.
Melvin Konner

In "Aspects of the Developmental Ethology of a Foraging People" (1972), Melvin Konner presented an ethological analysis of !Kung Bushmen infants and young children which tested Blurton-Jones' action patterns of rough-and-tumble play. Konner found that the patterns occurred among the !Kung only when they tried to annoy dogs and other large animals. Adults participated in rough-and-tumble play with children, but children only infrequently (and in a stylized manner) engaged in rough-and-tumble play with one another. However, there was one situation in which the rough-and-tumble play patterns of Bushmen children were similar to those of British children——when five or six same-age children were together in a camp.

Konner also described a variation of rough-and-tumble play occurring more regularly for one- to five-year-old !Kung children. He called this variation "gentle-and-tumble" and described the components as mutual touching, tangling of legs, clinging, and rolling while on the ground. The movements are slow, there is no laughter, and the players seldom stand up during gentle-and-tumble play.
Corinne Hutt

Corinne Hutt (e.g., 1966, 1970) combined ethological and experimental approaches in her well known research on exploration and play. In her 1966 experiment, Hutt presented a novel toy to young British nursery school children. The specially constructed toy was a rectangular box with a lever on top, and had lights and sound built into it which could be activated by a child. Hutt reported:

In all children, once active investigation had commenced, it generally proceeded vigorously, all aspects of the object being explored. It was only once the child had apparently learned all there was to know about the object that it was incorporated in play activities, and any further learning was purely incidental (1966, p. 202)

Based on her study, Hutt made an important distinction in exploratory activities. In investigative, inquisitive or specific exploration, the child's goal is getting to know the properties of the novel object. Specific exploration "seeks to reduce uncertainty and hence arousal or activation produced by the novel or complex stimulation" (p. 248).

On the other hand, in diversive exploration, the child's interest "changes from the question of 'what does the object do?' to 'what can I do with this object?'" (p. 246). Diversive exploration is an attempt "to vary stimulation in order to sustain a certain level of activation" (p. 246).
Play seems to be more similar to diverersive exploration than specific exploration. However, because investigators have failed to distinguish between these two forms of exploration, the behaviors of play and exploration are often confused.

Hutt (e.g., 1975, 1979) conducted another series of studies to further distinguish between specific and diverersive exploration. This time, the author measured young children's heart rate variability associated with different activities. She found the variability to be greatest during problem-solving (using puzzles). The heart rate variability during exploration with a novel toy was less than that of play, and similar to that of problem-solving. Thus, during play a child is more relaxed, is engaged in less mental effort and is less attentive to external sources of stimulation.

These findings led Hutt to formulate a taxonomy of play: (a) epistemic behavior, which is concerned with acquiring information and is cued from an external source of information (e.g., playing with jigsaw puzzles, learning to ride a bike, building sand castles); (b) ludic behavior, which is playful, highly mood dependent, and not necessarily cued from external sources (e.g., symbolic object/role play, repetitive play); and (c) games with rules.
According to Hutt, these distinctions are related to Berlyne's (1960) theory of arousal. He suggested that high and low levels of arousal potential (which is related to stimulus intensity and inversely related to duration of exposure to the stimulus) are mildly aversive, prompting the organism to respond in a way which will result in a return to "arousal tonus" (Hutt, 1979). Therefore, avoidance may occur in situations of high arousal, or exploratory responses could occur if the individual attempts to reduce the uncertainty associated with this state. Problem-solving and productive behaviors occur when arousal potential is moderate. Enjoyment and symbolic play appears as arousal potential further decreases. When arousal potential is minimal, the individual responds in such a way as to obtain changes in stimulation.

Many psychologists have used arousal theory in their investigations of play, including Ellis (1973), Ellis and Scholtz (1977), Czikszentmihalyi and Bennett (1971) and Schultz (1979).

Robert Fagan

Ethologists have long debated the adaptive values of play (see Schwartzman, 1978, pp. 308-311). Two papers presented at a recent TAASP convention highlight some of
the important issues. In "The Perilous Magic of Animal Play" (1984; see also 1981), Robert Fagan, who is an ardent investigator of animal play behavior, stated that he is "convinced that the comparative study of social behavior, including an emphasis on comparative aspects of play and games across species, is uniquely valuable for understanding human nature" (1984, p. 147).

Fagan takes a strong sociobiological position that play is a creative force in evolution and development: "It is a biological necessity for animals whose lifestyle actively modifies their environmental relationships in novel ways, creating environments for survival" (p. 150). However, innovative play (i.e., solo exercising, play fighting, nonfunctional object manipulation) is risky in terms of time spent, energy burned and possible physical injury. Fagan's central argument is that, if innovative play is to evolve, the benefits of discovery must outweigh the costs of play.

Richard D. Alford

Alford (1984) argued that there exists a serious weakness to the claim that the benefits of discovery in play outweigh the risks. Alford contends that Fagan and other researchers who have taken a similar position, have
made no attempt "to measure or quantify these benefits of play, and he entirely neglects the variable of cost" (p. 154). Alford takes the position that perhaps play is less significant for overall adaptation than Fagan and others have argued.

He suggested that the evolution of human playfulness ought to be considered in relation to the evolution of the neoteny complex: "In humans, what is typically a juvenile characteristic in primates, that is, playfulness, is extended into adulthood. The persistence of juvenile characteristics into adulthood is known to biologists as 'neoteny'" (p. 156). In humans, the neoteny complex includes, in addition to play, upright posture, reduced dominance and aggression, increased social bonding and behavioral flexibility. Therefore:

Since neotenous features may well develop in complexes, certain of the consequences of increasing neotenization may have been adaptively neutral or even negative. . . we must guard against attempting to explain every human trait in terms of direct natural selection. (p. 160)

Thus, the question of play's overall adaptive significance remains open.

**Summary**

Schwartzman (1978) criticized the approach and underlying assumptions made by child ethologists. She
particularly objected to the assumption that behaviors of children and non-human primates are equivalent. By defining behaviors in anatomical terms to allow for interspecies comparisons, child ethologists disregard language in play, except for noting frequency of verbalizations (rather than the content of talk) during play:

there is no question as to the symbolic sophistication of even very young humans. To "pretend" otherwise in order to view children as if they are monkeys or seagulls, is itself an illustration of the power of play. (p. 313)

Guilmette and Duthie (1981) also noted that the reluctance to regard humans as distinct from other infrahuman species is a paradox of the scientific study of play. Human play is not a mere extension of animal play, and "we need to recognize that symbol-minded nature of wo/man which permits us to escape the boundaries of space and time" (p. 39).
Investigations Which View Children's Play as Communication

Introduction

In recent years researchers have increasingly adopted a view of play as communication. Gregory Bateson (e.g., 1955, 1972) was one of the first advocates of a view of culture as communication that emphasized the importance of attending to the subtleties of human interaction. In Bateson's theory of play as metacommunication, "text and context are intimately and systematically related and can't be considered in isolation from one another" (Schwartzman, 1978, p. 245).

The following studies incorporate a view of play as communication to explore: (a) how play comments on social identity, interpersonal relationships and on society or culture in general; (b) how play "frames" are utilized as contexts for creating, defining, negotiating, controlling, and commenting on pretend, play or game episodes; and (c) the relationship between play and metaphor. In some of the investigations, this approach is part of a multi-perspective approach to understanding children's play.
Gregory Bateson: Play as Metacommunication

By the late 1940's and into the 1950's, Bateson (1955, 1956, 1972) developed a comprehensive theory of communication that tied together play, humor, psychotherapy, schizophrenia, hypnosis and ritual. His research stressed the themes that: (a) the relationship between things (i.e., the form or context) should be the primary focus for researchers; (b) there are hierarchies of levels of differences (e.g., the description of an event is different from the event itself); and (c) paradox occurs because there are differences or discontinuities between classes and their members (Schwartzman, 1978, pp. 212-214).

In the early 1950's, Bateson investigated whether or not animals were aware that they were communicating. He found that play could only occur among organisms able to metacommunicate (i.e., able to distinguish messages of differing logical types). The metacommunicative messages act as frames or contexts which provide information on how another message should be interpreted. To understand an action as play, the action must be framed by the message "this is play." This message produces a paradox because something is communicated at one level and disqualified at another. For example, in a play fight, "the playful nip denotes a bite, but it does not denote
what would be denoted by the bite" (Bateson, 1955, p. 41).

Bateson stressed that texts and contexts of play cannot be considered apart from one another and he suggested that it is in play one learns that there are frames (or contexts) of behavior (1956, pp. 148-149). Furthermore, he distinguished between play and games by pointing out that a game's explicit rule structure frames the action of the players, whereas play is flexibly framed by the metacommunication of the players (1955, pp. 50-51).

A number of researchers have been influenced by Bateson's approach to the study of both play and culture as communication. Among these researchers are: (a) Edward T. Hall (1959, 1966), for whom play is one of ten cultural primary message systems; (b) Stephen Miller (1973, 1974), who discussed play as a mode of organization in which the ends are not obliterated by the means, and the psychological processes of which are characterized by "galumphing;" (c) Erving Goffman (1961, 1974), who used games to discuss the nature of social encounters and suggested that keying (which involves transformations) is a central concept in frame analysis; (d) Sutton-Smith (1971a, 1974, 1976b), who discussed the antecedent contexts of play (e.g., biological predispositions) and the postcedent contexts of play (e.g., outcome of novelty)
and their relationship to cultural ideologies, as well as the cognitive and conative textual structures of play; (e) Clifford Geertz (1972, 1973), whose textual analysis of a Balinese cockfight is a commentary on the larger sociocultural context; and (f) D. Handleman (1977), who discussed play and ritual as complementary metacommunicative frames for interpreting experience and, as such, are social communication systems in which "play doubts the social order while ritual integrates it" (p. 189).

Communication Studies of Young Children's Make-Believe Play

Catherine Garvey

Psychologist Catherine Garvey (1974, 1977, 1979; Garvey and Berndt, 1975) conducted a laboratory study and videotaped the pretend play interactions of pairs of previously acquainted children (ages 3-5½ years). The research was interested in examining how children communicate pretending, how they organize their play episodes, and what types of play roles and activities were most frequently adopted by the children.

Garvey defined pretending as "a voluntary transformation of the Here and Now, the You and Me, and the This or That"
The materials children use in their transformations are: (a) roles or identities, which are assigned to participants or to imagined others; (b) objects and settings, which are changed or invented as needed; and (c) plans for action or story lines, which are often combined to form extended dramas. These plans are derived from a child's schema of an event and are constructed from bits and pieces of experience rather than directly copying adult models. (A schema is "an abstract representation of dynamic relations and events," Garvey & Berndt, 1975, p. 19). Also, these dramas or plans (which include treat/heal, averting danger, and making a phone call) directly influence object transformations and roles or identities adopted by the players.

However, for two or more children to use the resources of pretending, "communication becomes a critical factor in the successful production of make-believe (Garvey, 1977, p. 99). In fact, "carrying out make-believe is largely a matter of communication" (p. 86). On the basis of her analysis, Garvey described specific techniques used by children for communicating make-believe, including: (a) play signals, such as grinning or giggling; (b) explicit mention or direction of plans, roles, objects or settings; (c) explicit negation of pretend ("I'm not the dragon anymore"); (d) procedural or preparatory behaviors, such
as apportioning objects, correcting actions or speech inappropriate to the plan, claiming rights, and so on; and (e) enactment, or acting out a make-believe role or plan with appropriate speech or actions.

Garvey also found many instances of verbal ritual play interactions, which are characterized by repetitive, rhythmic exchanges grouped into repeatable units or rounds (e.g., an exchange of "you are too; no I'm not" repeated over and over). Garvey suggested that the appeal of this type of exchange is the element of control: "the ritual is a particular kind of play that shows an amazing amount of both self- and other-control in terms of timing and interactive behavior" (1979, p. 121).

The children in this study spent a lot of time verbally creating, clarifying and negotiating make-believe play episodes. Garvey found the average density of speech in the pretend situations was one utterance every four seconds. (An utterance is a stretch of one person's speech separated by a partner's speech or a one-second pause.) Garvey's results strongly indicate, for these children, "the saying is the playing" (Garvey and Berndt, 1975, p. 9).

Helen Schwartzman (1978)

Helen Schwartzman also investigated the make-believe
play communication of American preschool children (1976, 1978, 1979). Like Catherine Garvey, Helen Schwartzman has stressed the importance of the interactional context of play. For Schwartzman (as for Garvey) play is both negotiation (context) and drama (text), which are inseparable from any definition of play (Sutton-Smith, 1979, p. 239). She refers to this dimension of play as a "sideways view" because "to the side of, or across from one child there are often other children--his or her peers" (Schwartzman, 1978, p. 237).

After Bateson (1955, 1956), Geertz (1972) and Erhman (1968), Schwartzman views play as communication "characterized by the production of paradoxical statements about activities--the transformation of objects or persons by saying 'this both is and is not what it seems to be'" (Schwartzman, 1978, p. 246).

To reveal the sideways or textual dimension of play, Schwartzman stressed that the researcher must understand the history of the players' relationships with one another in a particular setting, because in play the children tell themselves stories about themselves--they are both the subjects and objects of their jointly created play event. In these terms, in order to be a successful player, for example:

a child (Linda) must be able to communicate to other players that she is both Linda (i.e., a person who
leads, dominates and directs activities, as she is known for this in the general classroom setting) and not-Linda (i.e., a witch or a mother) in a play situation. In brief, the purpose of this study was to describe play in context and the context in play texts. (Schwartzman, 1978, p. 236)

For this study, Schwartzman worked as a participant-observer for over a year in a day care center located in a low-income, multi-ethnic community in Chicago. Her research methods included: (a) a diary record of each child's daily activities and interactions; (b) field notes recording specific play incidents; (c) interviews with children and staff; (d) collection of children's drawings; (e) sociometric study; and (f) records of play events in still photographs and film.

In analyzing her data, Schwartzman used a series of "statements" which described the verbal and non-verbal behavior recurring in play events: (a) formation statements ("let's play house"); (b) connection statements ("can I play with you"); (c) rejection statements ("you can't play here"); (d) disconnection statements ("I'm not playing anymore"); (e) maintainence statements ("Daddy hurt himself -- quick, Mary, bring the bandages!"); (f) definition statements ("I'm not cooking in the kitchen"); (g) acceptance statements ("OK, now I'm eating it"); (h) counter-definition statements ("I'm the father, not the baby"); and (i) reformulation or disintegration statements ("let's not play
this anymore," or "let's play cowboys now").

Schwartzman's analyses of pretend play episodes included determining the statements made by the playing children, and interpreting the episodes in light of the children's social relationships (as observed by the researcher and as described by the children themselves) in the preschool setting. Using this sideways perspective she found that:

these kids are very concerned with issues of control, issues of manipulation, issues of dominance, and that their play was in fact a reflection of these concerns and a commentary on their own ability to control their own interactional styles. (Schwartzman, 1979, pp. 249-250)

Among the range of play texts, Schwartzman also discriminated the kinds of authority structures that the children seemed to be commenting on. The relationships among playing children were described according to five kinds of genres: asymmetrical dyads; asymmetrical group relationships; symmetrical dyads of groups; meta-complementary relationships; and group confrontations. Within these genres, children engaged in play themes which reflected specific relationship models: parent(s)/child; older sib/younger sib; teachers/children; older children/younger children; friend/friend; relationship confusion (the relationship is defined as symmetrical but in fact is asymmetrical); and bad guys vs. good guys.
Schwartzman emphasized that these relationship models were not simply imitated by the children, but were used as formats for commentaries on their own relationships to each other. As a consequence, certain groups of children were frequently associated with certain genres. For example, a group of children became associated with the genre of group confrontations. This group, defined as "disruptive" by their teachers and peers, often played "bad guys vs. good guys," which frequently involved chasing and using guns. This behavior would bring the group into confrontations with the teachers and also often disrupted groups of other children:

>This kind of confrontation was really an effective comment on their status in the classroom, what their definition was in this particular classroom; so it's not surprising that this was the kind of play that they most frequently engaged in. (1979, p. 250)

In conclusion, Schwartzman argues that in play children learn: (a) that behavior is "contexted (e.g., there is a difference between play and nonplay); (b) that contexts influence the authority structure of relationships (e.g., there are differences between symmetrical and asymmetrical relationships); and (c) that these relationships can be commented on. In fact, at another level, play texts are a commentary on the whole notion of hierarchical ranking as children experience it in their families, at school, and so on. Finally, because play provides children with
an opportunity for commentary or interpretation:

play suggests the possibility of reinterpretation, challenge, and even change in relationships. Make-believe play creates these possibilities because it is both a text and a context. This, then, is the beginning of humor, art, and all forms of social satire and critique and is perhaps the most significant feature of this play form. (1978, p. 245)

Helen Schwartzman (1982)

In "Play and Metaphor" (1982), Helen Schwartzman argued that play can best be viewed as a process of creative and spontaneous metaphor construction and identity communication. This process can be seen in children's imaginative play and in some forms of speech play, but is not found in games, sports or athletics, which are orderly, rule-governed and identity-absorbing systems. The researcher wishes to "remetaphorize" play theory by emphasizing the former, processual view of play, which has been neglected by most researchers.

In her examination of the similarities between children's imaginative play and the process of metaphor construction, Schwartzman suggested that the two major types of metaphor proposed by Black (1962), namely substitution and interaction, may be reconciled by considering the relationships that exist between play and metaphor. A substitution view of metaphor holds
that a metaphorical expression is used in place of some equivalent, literal expression. The interaction view of metaphor holds that:

a metaphorical statement has two distinct subjects--a principal subject and a 'subsidiary' one... the metaphor selects, emphasizes, suppresses and organizes features of the principal subject by implying statements about it that normally apply to the subsidiary subject. (Schwartzman, 1982, p. 26)

In this analysis, Schwartzman designated play as the principal subject and imaginative play as the subsidiary subject. The relationships between play and metaphor suggested by Schwartzman are as follows:

1. Both play and metaphor must be viewed as forms of verbal and nonverbal communication. This serves to focus attention on the ongoing communication of players in a play event rather than on the fixed and established rules of a game. Students of metaphor, she noted, have long neglected nonverbal frameworks in which metaphor can occur, such as in music, with gestures, or in object/action transformations.

2. Both play and metaphor are characterized by the production of paradoxical messages or images. For example, a paradox is implied in the metaphor "Richard is like a lion (brave, powerful), but he is also not like a lion (where is his tail?)" (p. 28). Likewise, paradox is seen in children's fantasy play: "a broom is like a horse in some ways, but it is also not a horse" (p. 28). The
paradox implied in both play and metaphor "underlines the importance of developing interactional theories of both phenomena" (p. 28).

3. While play must be analyzed in terms of the dialectical interaction that exists between play texts and contexts, metaphors must be understood in terms of a dialectical interaction between their focus (the focal word in the metaphor) and their frame (the context in which the word exists, such as the sentence). "This view suggests that boundaries between text and context or focus and frame do not exist as each may become part of the other" (p. 28).

4. Both play and metaphor are crucial to the process of identity formation and communication. Sophisticated communication skills are required for players to communicate (and keep in balance) their two identities—as a play subject (the character or role one plays) and a play object (a person in the defining social context).

5. Ideas about the nature of context and the ability to adopt an "as-if" attitude in both play and metaphor are important for cognitive development and may be related to the development of specific types of logical operations and creativity in general.

These relationships between play and metaphor are illustrated in the research of Schwartzman (1978) and
Stross (1975). Stross investigated Tzeltal children's use of metaphor in imaginative play. He analyzed the text of two children (ages 2½ and 6) living in the state of Chiapas, Mexico, who were engaged in a make-believe play event, and found that: (a) children, including very young children, are able to use and create metaphors in play activities; (b) children's metaphors may be both typical of the culture or speech community, and they may be invented by the children in the context of their play; (c) the process of metaphor construction and production may be similar across cultures, while the content of metaphors might vary; and (d) the creation and use of metaphors in play by young children might provide a base for the induction of rules which eventually can be used to create and understand metaphors apart from the pretend play context (cited in Schwartzman, 1982, pp. 29-30).

In Schwartzman's (e.g., 1978) own research on the pretend play of Chicago preschool children, she found that identity metaphors (i.e., the roles assumed by children in their pretend play) are used as commentaries on the children's relations to each other and are not assigned or chosen randomly. For example, in one play episode involving five children, the identity metaphors of mommy, sister and older sister were "direct and appropriate comments on the children's status in the play event and also in the day
care in general" (p. 31):

Linda was typically a play group leader (and the most "popular" child at the center . . ). . . . Linda then begins to organize activities for the others as she makes and changes identity metaphors for herself and the others. First she defined Karen as "mother" (of course this would still insure that she was in charge, since she was the one defining identities) and then she changes her mind and says "No! We're all sisters--but the oldest does all the work" (and she is, at that time, the only one sweeping). This seems to be a reference to herself as play leader with its accompanying responsibilities. (Schwartzman, 1982, p. 31)

Thus, traditional metaphors (mommy, sister) are used in an innovative way, because they depict a relationship rather than an individual's identity per se. Children practice "learning the rules for metaphoric fit" in this form of play, "because some metaphors work (or fit) by designating the relationships accurately and some do not" (pp. 31-32).

Michael Bamberg

Psychologist Michael Bamberg (1983) has also argued that play is a discourse in metaphorical transformations. He investigated how children use processes of metaphorization in order to reach a shared understanding, which is necessary for negotiating a joint play frame. He also proposed that the shared knowledge produced in play is the basis of cultural creativity and social intimacy.

Some of the aspects of metaphor that are important
for the conceptual and communicative activities that occur in play include:

1. Metaphor is the conceptual activity of "seeing as."

2. Both novel and conventional ways of seeing as are ends of a continuum.

3. The conceptual activity of seeing as is an ordering activity that gives coherence to new or uncommon experience. It makes sense of the world and ourselves in terms of previous experiences.

4. The conceptual activity of seeing as is embedded in conventions shared by certain communities that have experienced or ordered the world in which they live.

5. If experience is structured metaphorically, it is possible to analyze the experiences underlying sentences, interactions, texts, life-stories and whole cultures (Bamberg, 1983, pp. 128-129).

Thus, metaphorical thinking is deeply rooted and a part of everyday practices. The processes of seeing as must be analyzed to learn how people interpret their lives -- what meaningful relations they impose on reality (p. 130).

Bamberg conducted two case studies to determine the extent to which metaphor explains children's pretend play interactions. In the first study, he videotaped two white, middle-class boys (both 4-years-old) who were previously
acquainted and were thoroughly familiar with the play settings (their homes) as well as the researcher and his equipment. He recorded twelve play episodes which clearly indicated the "seeing as" ability of these four-year-old boys. They were able to negotiate where to fit objects or events of the surrounding context into the continuum of seeing as. They were also able to work jointly on sharing and elaborating the perspective taken in the pretend play event.

In eight of the episodes, there were no communicative markings of any transition between real and imagined worlds. This led Bamberg to suggest:

it is not the distinction of a 'real world' vs. a 'non-real world' that is a basic characteristic of play or metaphor. Rather, it is the knowledge of the communicative partner that has to be imagined ... When the speaker feels the communicative partner is "lost," he/she may clarify by linguistic or extra-linguistic cues. (1983, p. 133)

Thus, it's not the play event that gets communicatively marked, but rather the "clash of sharedness in background assumptions" (p. 133). Play events, then, take place within the real world, since in play metaphoric perspectives are taken towards objects, events, persons, or roles.

In an eight-month study of the play of two girls (both two-years-old), the researcher found that by the time the girls were two-and-a-half years of age, they were able to engage in the conceptual activity of seeing as. For
example, during one play episode one of the girls said:

   I'm brooming this book [going with a feather over a book]
   [and a minute later]
   I'm brooming Mommy's hair [going with a feather over her Mommy's hair] (p. 135)

Having seen her mother sweeping ("brooming") might have provided the experiential basis for the child's novel way of seeing as.

The younger girls, unlike the older boys, seldom directed their suggestions of seeing as to their play partner. Also, the play frame in which the incidents of seeing as occurred had been suggested by the mothers and maintained by the play props used. The girls focused on their activity and used the other's activity (and verbal comments) as a stimulus to continue one's own activity. The children's practice of seeing as, while concurrently elaborating on their shared background knowledge and establishing some kind of intimacy, is explored in a paper by Budwig, Strage, and Bamberg (1983).

Bamberg suggested that metaphoric activity, which is basic to human activities and interaction, accounts for the creativity and spontaneity of play. The creativity in pretend play "relies on 'old parts' [i.e., experience] in order to create novel ways of seeing as" (p. 140). Play and metaphor also have in common the structuring effect that a particular way of seeing as lends to the
situation. Thus, frame and situation are spontaneously negotiated.

Finally, Bamberg highlighted the sense of intimacy and joy that arises in play from the frame of shared understanding and experience:

metaphorization in the play activities of young children can be viewed as relating different perspectives (in terms of seeing as) and weaving them into a common frame. . . once the perspective towards an object, event, a particular interactive frame, or a social role is agreed upon, it constitutes a shared experience which contributes to the intimacy of children. (p. 140)

N. Budwig, A. Strage, and M. Bamberg

As indicated in Bamberg's 1983 article, a study was conducted to analyze the play of two white, middle-class females (both age two) over an eight-month period. In this report, researchers Budwig, Strage and Bamberg (1983) examined several play frames in order to show the relationship between the mechanics and products of organizing and sustaining peer play, and how this relationship changes over time. The investigators suggested that in play, preschool children not only explore a world of pretense, but also engage in an early lesson in establishing social relationships.

The mechanics of peer play refers to the processes by which joint activities are established and elaborated
upon. In the early play sessions, the children had difficulty working out joint activities by themselves. The authors borrowed the notion of play "scaffolding" to describe the processes by which the mothers of the children (who were present during the play sessions) helped ensure the peer's participation in shared experiences. The researchers stressed that the mothers helped regulate the peer's negotiations only when needed--they did not establish the play for the children.

There were three techniques the mothers used so that peer play could evolve: (a) they directed the children towards one another by suggesting a possible new activity, or by suggesting a way to turn a child's play into a joint activity; (b) they suggested ways to build on an agreed-upon frame, which helped sustain the children's mutual focus; and (c) they redirected the children's attention to their peer whenever the children tried to enlist a mother's assistance.

Another important factor contributing to the development of peer play is the degree of the interactant's shared understanding. Children build up shared understanding by communicating across their differences--they learn to relate the co-participant's experiences to their own perspective. Bamberg (1983) has described how the stage of shared understanding is reached through processes of
metaphorization. In order to negotiate joint play frames, the children must learn to coordinate play across their different perspectives (p. 150).

Over the course of the study, the children developed a greater sense of shared understanding. Their negotiations reflected an increasing ability to work out the mechanics of joint play, and an increasing sense of intimacy was reflected in the growing cooperative behavior within the joint play frames. In the earlier sessions, the joint peer play almost exclusively involved verbal repetition. In the later sessions, their play began to approximate the play typical of preschool children, as a result of both the gradual development of shared understanding and the children's increasing ability to effectively use verbal resources. The children also came to rely less on scaffolding from their mothers, and increasingly shared the responsibility for negotiating joint play frames and constructing more elaborate play activities.

Communication Studies of School-Aged Children's Games and Play

Claire Farrer

Anthropologist Claire Farrer incorporated the view of
play as communication in her analysis of Mescalero Apache children's play. In "Play and Inter-Ethnic Communication" (1977), Farrer described how the play of the Mescalero school children replicated the communication system taught by adults. She illustrated the metacommunicative quality of play by both contrasting how Anglo-American children and Mescalero Apache children play the game tag, and comparing features of the game with Apache cultural norms.

For Mescalero children, tag is not a linear game, as it is for Anglo-American children, but rather is a round or circular game which is played while moving in a clockwise direction around a jungle gym. Also, unlike Anglo-American children's tag games, Mescalero children's bodies usually touch throughout the game, and a tag involves a specific hand movement to another's head, shoulder, arm or leg. Another major difference is that Mescalero children make no verbal corrections or amendments to rules during play. So when a child goes through the jungle gym rather than around it, or when an "it" child goes counter-clockwise, the other children allow the movement or they stop the game. One doesn't hear the usual Anglo-American cries of "cheating!" or "that's not fair!" (1977, p. 99). Finally, Mescalero relatives play together much more often than non-relatives.
Farrer argued that in this game the Mescalero children are replicating, or acting out, basic tenets of culture by emphasizing the importance of contact, circularity, and learning by observation:

They are making statements about standard communication patterns: when it is appropriate to speak, and when to remain silent; to whom one speaks; and in what manner; and whether "speech" is verbal or non-verbal. Thus, play is metacommunication. (1977, p. 101)

Circularity is important to the Mescalero Apache people and is found in the structure of traditional homes, in dance patterns (which move clockwise), and in the egalitarian decision-making patterns (e.g., no one is the obvious leader in a circle). As in the children's game, physical closeness is common to adult Mescalero Apache people, who frequently stand side by side with arms touching when conversing, and sit with shoulders and hips touching during meetings, powwows, or church services. Also as in the game of tag, during which mistakes are not called out and rules are not negotiated, Apache parents rarely publicly correct their children, who are "expected to behave properly by observing and copying older siblings, cousins and parents" (p. 102). If a child misbehaves, he or she is ignored, restrained, or removed from the situation.

Thus, children are replicating in play what they observe in the larger society. In this way, play may be viewed as metacommunication, or a "miniature communication
system" (p. 102). She also suggested that these insights about culture-specific communication patterns gained from observing free play activities allow classroom teachers to restructure teaching techniques and the physical classroom environment in order to more effectively communicate.

Norman Denzin

In his book Childhood Socialization (1977), sociologist Norman Denzin applied a symbolic interactionist perspective to the view of play as communication. According to Denzin, the interactionist avoids a strict developmental approach and prefers instead a naturalistic account of the growth and emergence of self-awareness and self-consciousness in childhood. Specifically, the symbolic interactionist sees the child as an organism able to respond to and manipulate symbols and its body. The child becomes an organism that engages in both minded and self-reflexive behavior:

The origins of this process are lodged in the social order that he is born into and not physiological structures, innate needs and drives or in age-specific developmental phases. (1977, p. 91)

Play is one of many interactional forms crucial to early childhood socialization experience, according to this researcher. Play is a social behavior that results in children learning to cooperate and interact with others.
Denzin stressed that a formulation or theory of play and games must not be separated from the interpersonal context that produces them, and the player's perspective must also be taken into account:

In their decontextualization of games and play, contemporary theorists have failed to grasp the fundamental fact that all instances of play and games involve interaction (which may not be face to face) of one or more persons who are orienting their cognitive, physical and symbolic behaviors toward themselves, one another, or animate and inanimate objects. (p. 148)

For Denzin, a theory of play and games must rest on a consistent image of the interaction. Using Goffman's (1974) terms, the author described the interactional forms of play, games and work as situated productions that differentially mold the elements of acts, interaction and place (p. 150). He discussed these elements in chapter eight entitled "Play, Games and Interaction" (1977, pp. 142-169). Denzin also presented a multi-dimensional typology of play and games which incorporates the notion of interactional age (i.e., the number of interactions one has had with a specific unit of behavior).

In chapter nine, "Child's Play and the Construction of Social Order" (1977, pp. 170-180), Denzin placed play and games in a historical and interpersonal context by analyzing the careers that children have through and with games. Using texts of specific play episodes of children
(ages 7 and 8), he illustrated how games, when introduced into existing personal networks of children, at first reflect the relationships within that network:

the constructed social orders observed in child's play reveal the same patterns of interaction that are present in any constructed social order when participants are obliged to align their actions with one another for any period of time. (pp. 171-172)

These constructed worlds of play "are interpreted, negotiated, argued over, debated about, compromised, and --on occasion--suspended, abandoned, destroyed, or thrown away" (p. 173).

In this chapter, Denzin also shows how over time games become increasingly impersonalized and eventually transcend the identities of the players.

Andy Sluckin

Like Denzin (1977), British developmental psychologist Andy Sluckin (1981) focused on the constructed worlds of play. For this study, Sluckin adopted an "ethogenic" approach, which stresses naturalistic observations, participant observation, and explanations of observed behaviors within a cultural framework. Significantly, the ethogenist regards the children themselves as the prime source of theories about their behaviors and thoughts, and "just like anthropologists, a thorough and continual process of negotiation between researcher and participant
is held to ensure reliability and validity" (1981, p. 123).

In this investigation, Sluckin explored the social worlds of British children (ages 5-13) from working class families at two school playgrounds in Oxford. He found that traditional counting-out rhymes were flourishing, as were games of chasing, catching, seeking, daring, guessing, marbles, hopscotch, singing, dancing and hand-clapping. However, Sluckin primarily focused on the social context of these activities, particularly on how children dealt with problems occurring on the playground.

The researcher found that children by and large solved problems by words alone, and there were many subtle ways that children played with words to clarify the context of certain actions or behaviors. For example, certain ritual words are used by children (and known to all) to clarify game rules, roles and a player's inclusion/exclusion. "Bagsee" is a word of power, and when it precedes "mine," "me first," or "me not it," the user gains possession of an object, claims precedence or avoids a role, respectively. It is also used to state extra rules in a game.

Another ritual word, "Crucems," ensures temporary immunity for a player. The power of these words, however, eventually guarantees their demise by ages nine or ten, since by this age rules seem to be regarded as more arbitrary than as all-powerful. For example:
Lynn (9:10): Crucems
Dottie (9:6): We're not having crucems.
Lynn: Bagsee-no-crucems.

Sluckin also presented examples of other verbal clarifications, such as establishing that certain actions are "play," or for changing an aggressive situation to a joking or playful one. Actions are also placed in a different light by using verbal strategies which redefine the individual (e.g., "hey, you're out; it doesn't matter --we're only little"), or which redefine the act (e.g., "no you didn't touch me, you're cheating") (p. 42).

The author also investigated: (a) rules for joining in a game, how children are excluded, and how children cope with exclusion; (b) apportioning roles at the start of a game, transferring roles, and how to be chased; (c) how fights start, proceed, and stop; (d) tactics used to join in a group, make friends, and deal with conflicts; (e) individual interaction styles (leaders, dominant-aggressive, dominated-aggressive, dominated-timid, withdrawn); and (f) styles of hostility (manipulative, harassing, attention-seeking).

Sluckin also presented a detailed case study of the interaction and hostility styles of an eight-year-old boy, Neill, to show how he maintained his role and used his power as "boss" of the playground at First School. As boss, Neill had power "to make all the suggestions, chose who can play
and chuck out those people who misbehave" (p. 82). His power extended beyond that—he often cheated, joined in games without permission, and ignored the power of "bagsee." He also often went to great lengths to avoid physical fights while not giving in during verbal battles. In one 20-minute episode, heated arguments erupted when Neill and some other boys disrupted a girls' game. Nobody wanted an all-out fight, but no one wanted to give in. Finally:

Neill produces a most striking solution. He pretends to go to sleep, and as the girls around continued to taunt him, his definition catches on with the other boys. In this way the problem is solved. An all-out fight is avoided, and the boys are not seen to be giving in. (p. 86)

By looking at play and games and the conflicts that can arise during them, the author has provided information about the implicit and explicit extensive knowledge that is shared by members of the playground community, about the way children in this context communicate their identities and relationships to each other, and how children constantly negotiate and (re)construct worlds of play. Ultimately, peer interaction during play "offers an enormous scope to initiate, discuss, influence and change rules in a way that we cannot imagine happening between children and adults," and thus, is extremely important to the process of social development. (p. 119).
In "Beyond the Rules of the Game: Why are Rooie Rules Nice?" (1983), Linda Hughes contrasted game rules and the rules of contexted gaming, and suggested that the "play" in games arises from the apparent contradiction between "ideal" game rules and the "real" rules of gaming. Hughes adopted a "social communicational interactional perspective" in her analysis of the game foursquare (p. 190).

The findings in this paper were part of a larger research project which was conducted over three years, during which the investigator interviewed and observed third- and fourth-grade, middle-class, Philadelphia girls playing the game foursquare on a private school playground. Also, some boys, and some older and younger children regularly joined in the game.

Foursquare is a simple ball-bouncing game, played on a square court which is divided into four equal squares. The player occupying one of the squares is the "king," who calls out a set of rules for the round and serves the ball to one of the other three players. When the ball bounces on a line or out of bounds, when it is missed by a player, or when it bounces more than one time, the player incurring the infraction is out. Players rotate towards the king's square and a new person waiting to enter the
game fills the vacant square.

Since the game is so simple, calling out king's rules before each round helps to make the game more exciting. Calls can also adjust the level of difficulty and assist or chastise other players. At one level, king's rules function as game rules and at another level they may set the tone for a round or the overall gaming occasion. This latter quality allows the king's call of "Rooie Rules," which is a shorthand reference to the list of individual calls (e.g., no holding, no slams) preferred by a regular player, Rooie. However, no player, including Rooie, could specify all the rules encompassed by this call. Hughes explained:

What allows the game to proceed within such apparent ambiguity concerning the precise rules of the game is the tacit understanding that Rooie Rules are "nice," and "nice" is perhaps the paramount concern among players. It is far more important to understand "nice" play than to understand the rules. (p. 192)

Components of "nice" include: (a) fairness (e.g., it is unfair to penalize younger, less skilled players for briefly holding the ball before returning it); (b) perceived intentionality (e.g., a player shouldn't hold the ball while deciding which player to get out of the game); and (c) the avoidance of direct confrontations over players' actions (e.g., a player who purposely violates a rule is ignored if the action was directed toward a scapegoated
player). Hughes described the typical way "nice" players handle a player who is not "nice."

It is very common to observe rather elaborate performances—exaggerated leaning, grunts, cries of "whew!" and dramatic mopping of brows—around rather easy shots that just happen to land as a "slam" in the offending player's square. (p. 193)

There seemed to be a quality of collusive "play" around ways of making deliberate actions look accidental, which was evident in the "smiles, sideways glances, and glints in the players' eyes" when these exchanges occurred. In fact, sanctions for rule violations occurred only when "purpose stuff" doesn't have this playful, among-friends quality (p. 193).

Rooie Rules are what the researcher identifies as "real" rules—they are codes and conventions implicitly understood by a community of players. On the other hand, "ideal" rules are those which formally and officially regulate the game. Real rules may conflict with ideal rules, yet they are preferred because they reflect a consensus of how the game should be played, and they ensure the continuance of the game. So, when the boys in a particular game challenged the real rules (i.e., that they play "nice") the flow of the game was disrupted. It could not survive such a rigid linking of rule and action.

Hughes stressed that game rules and player actions, and the interpretive gaming scheme which binds them together,
are of different orders. Game scholars create their own paradoxes when they "take the 'play' out of games, the 'fun' out of gaming, by treating a description of the game rules as descriptive of the activity or experience" (p. 197). When referring to games as frames, one must remember that the games frame the gamers, not the activity.

Hughes also suggested that researchers not think too simplistically about rules. Rules are of different types, are multi-layered, hierarchical, and they reference different antecedents and outcomes. They are subject to constant negotiation and reinterpretation in daily life. "All rules are not equal and all players are not equal under the rules" (p. 197).

Furthermore, researchers have assumed that game rules are always explicit and foregrounded. "Observations of players, however, suggest the degree of rule explicitness may constantly shift, and such phenomena are highly contexted and indicative of social relationships among gamers" (p. 198).

Hughes concluded that:

the apparent paradoxes and transformations of "play" derive less from the logic of players than from the logic of our descriptions. Contradiction seems almost inevitable when we confuse the logic of the game with the logic of contexted gaming. (p. 198)
Marjorie Goodwin

Folklorist Marjorie Goodwin (1985) recently examined the game jump rope as a frame for players to negotiate non-game concerns. For over a year, Goodwin observed and recorded the conversations of a group of preadolescent, black girls in Philadelphia while they played jump rope. She presented portions of the texts to illustrate "ways in which interaction occurring in the midst of a specific play activity, jump rope, is continuous with that outside the play frame" (p. 315). Goodwin also found that the girls' procedures for organizing activities reflected their particular cultural concerns.

Although jump rope is not an inherently competitive game, in order to play many decisions must be made regarding how to proceed, such as selecting the positions of jumper or ender, selecting the rhymes to be used and in what sequence, and deciding what roles newcomers should take. A difference of opinion about the various game features often leads to dispute and necessitates negotiation. In addition, the players often use the frame "this is jump rope" as a boundary for disputes unrelated to the game, and the argumentative talk ends when the game is reinvoked. Yet regardless of the source of the dispute, the girls'
arguments were always negotiated and settled rather quickly so that the players could continue with the game.

Based on her results from this and earlier research, Goodwin noted that unlike in boys' games, girls' games did not result in criteria for any ranking. Instead they compared one another according to physical appearances and the alliances they maintained (especially with older females and boys). Disputes during the game gave the girls a chance to "create differences" among one another, however.

Also, girls used more mitigated speech actions in their play than boys. Girls proposed (rather than demanded) to all involved in the game that a new rhyme be started up (e.g., "let's play 'One Two Three Footsies'"). Requests or imperatives of various forms expressed mitigation in the frame of jump rope (e.g., "Could I take your turn?; Go ahead Michele"). Unlike boys' use of imperatives in games and play, (which generally emphasized their personal desires), the imperatives used by girls did not express a leader's mandates, but rather dealt with actions which advanced the game and benefitted the entire group. These behaviors, according to the author, were in keeping with the egalitarian ethos the girls professed (p. 324).

In her conclusion, Goodwin pointed out that this research supports the notion suggested by Denzin (1977) that children's world of play are "not just given or
handed down; rather they are constructed worlds that are interpreted, negotiated, argued over, debated about, compromised" (p. 173). This study shows that by focusing on the texts of disputes within play, one can see how children "create and recreate their social order from moment to moment, making use of culturally appropriate dispute procedures" (Goodwin, 1985, p. 326). She further suggested that documenting interactive sequences with play and games could provide a basis for comparative studies of how members of different societies use play as a framework for negotiating important dimensions of their lives.

Diana Kelly-Byrne

Anthropologist Diana Kelly-Byrne has acknowledged that "the discovery of play as a form of communication has constituted a quantum leap forward in the progress of play research" (1983, p. 161). However, by insisting that the saying is the playing (Garvey, 1977), and by showing play texts in context and the context in play texts (Schwartzman, 1978), researchers have largely confined themselves to children playing in the public setting of the laboratory clinic and nursery school. According to Kelly-Byrne, this presents some drawbacks:

1. Play in public settings often is not allowed to
develop to any extent because of frequent interruptions by other students, teachers, time schedules, and so on.

2. Relationships in these settings tend to be relatively public, and the lack of close friendship among players necessitates a lot of time spent on negotiation to start a relationship.

3. The categories of behavior which intertwine saying and playing, setting and scene, (e.g., communications, plans, roles, statements, genres) "still do not give us a sense of what it is all about" (p. 161).

In response to these drawbacks, Kelly-Byrne (1983, 1984) examined the evolution of an intensive play relationship in a private setting. She conducted a case study of a female child's (age 7) play and story relationship with an adult (who was the researcher). The investigation took place over one year, during which time the researcher met with the child in her home for 14 three- or four-hour sessions. Kelly-Byrne described the text and context of the sessions in terms of Goffman's (1959, 1974) concepts of encounters, self presentation, rituals, rules, strategies, brackets, front and back-stage behavior, and disattention.

In the first session, the child's goal was to make a relationship with the adult, especially by "luring her into her own private world," and play was the medium by which they would get to know one another (1983, p. 166). The
detailed analysis of this important session revealed a stepwise progression "whereby the child moved through a period of negotiation, into play, and out of it again into a close relatedness, and then back into play for a deepening of the intimacy" (1983, p. 167). In this way, the session moved from negotiations to collusions.

Kelly-Byrne also discovered in this first session that play was a mask for the child's most personal concerns. For the two to get to know one another better, the child announced "you have to come to my room," and then said, "I tell no one my dreams, secrets, secret languages, or about my superheroes, so don't ask me about them" (1983, p. 166). What she was implying is that they would share a ludic relationship in her bedroom, "a partnership which by its very paradoxical nature would deal with a play upon these worldly phenomena of her fantasy life, her secrets, etc., but not deal with them in everyday 'realistic' terms" (1983, p. 166).

In the second session, unlike in the first: (a) there was a minimum of negotiation at the beginning of the encounter; (b) personal relating occurred before (not after) the play; and (c) the play enactments lasted much longer and the adult was allowed more participation.

By the third session the child's first gestures were directly from the play world, contrasting sharply with the
previous, more public, initial gestures of negotiation. At this point, the element of negotiation shifted to the play world itself rather than everyday behavior.

From the third through the ninth sessions, most of their play involved staging dramatic plots about heroines and mythic figures. Even though the adult was allowed increasingly active and powerful roles in the enactments, the child remained in control in the play realm. However, in her everyday behavior with the investigator, she became more flexible.

Although play dramas were plotted in the last five sessions, they were never carried through. The time was spent almost entirely directly discussing intimate interests (which had been interdicted in the first session). Conversation and intimacy had taken the place of play and indirect discussion:

the sharing of the self that is most within and which was most heavily masked, at least in the sequence of events, appears to be what is most desperately sought and achieved through the course of the relationship. (1984, p. 169)

Kelly-Byrne suggested that the results of her study have important implications for the question of why play seems trivial. "Play's apparent triviality guards the most intimate motives which are almost too sacred for this child to share."

we may surmise that the triviality of play pertains not so much to play, which is a serious and significant mode of communication, but to those personal and private matters which may be brought to the public arena if play were allowed its sway. (1984, p. 169)
Play as Performance

Brian Sutton-Smith

Sutton-Smith (1979a) combined communication and structural approaches in his theory of play as performance. In presenting his ideas in an epilogue to the proceedings of the third Johnson & Johnson Round Table Conference which examined research on play and learning, Sutton-Smith tried to transcend the differences between individualistic premises of psychologists and the collective premises of anthropologists:

On the one hand we have groups concerned with those individual and object-related variables that trigger the drama of play, and on the other hand the smaller group concerned with those collective kinds of communication that make the play frame what it is. To transcend this difference, it seems we require a theory of play which deals with it both as an act of communication and as a dramatic occurrence. (p. 297)

He further suggested that "if language is always a dialogue, a situated act [i.e., speech], and not merely a text [i.e., grammar], that all expressive forms, of which play is only one, are a quadralogue" (p. 297).

The formal quadralogic of communication in the expressive sphere always involves at least four prototypical parties: actors, co-actors, director and audience. Play is always a performance before real or imagined others and is never a simple solitary action. The solitary player is both
director and actor on his own stage. In social play, the player may be the audience for the co-player. A mother may be player, director and audience for her baby, who is a counter-player. By thinking in quadralogic terms, therefore, one is considering both a communicational structure (director and audience) and a dramatic or textual structure (actor and counter-actor).

When considering the antecedents of play as performance, Sutton-Smith postulated that its prototypical or aboriginal paradigm is found in "mother and infant conjoined in an expressive communication frame within which they contrastively participate in the modulation of excitement" (p. 300). It is the mother (or primary caregiver) who first provides the infant with a safe expressive frame within which play occurs. The communicational frame provided by the mother includes the expressive attributes of: (a) a proxemic bubble (closeness of faces); (b) a play face (raised eyebrows, open mouth, wide-open eyes, mock surprise); (c) a play gaze (infatuated gazing while talking); (d) play vocalization (higher pitch, elongated vowels); (e) face presentations (zooming in and out); (f) play time; and (g) a play place (p. 300).

Within this communicational context, mother and baby soon engage in a series of dramatic episodes based on the alternation of contrasting actions (from their contrasting
roles). As the child grows older, these episodes are joined together so that the player's excitement reaches a peak and is followed by a euphoric feeling. The child's playfulness in subsequent years is a direct function of the amount, variability and elaborateness of the mother-infant prototypical play situation (p. 301).

In solitary play, the child becomes both actor and spectator within the same episode, and by the end of the first year, the child has "control of a communicational competence but within a monologic form" (p. 303). This communicational competence becomes increasingly complex and subjective as the child engages in symbolic play during the second year. For example, a doll becomes the actor and the doll's bottle becomes the counter-actor (with both objects providing the drama via contrastive relationships). The child player is now the director and spectator, and thus, (as mother had done earlier), is the frame manager. In fact, children seem to acquire communicational competence of the expressive frame before fully learning "the inner secrets which make the drama work out" (p. 304). For example, children can tell riddles (i.e., state questions and give answers using the appropriate intonations) before they can follow the logic of riddles.

In order to play with peers (and parents), young children from about one year of age must also learn how
to negotiate the frames they want to establish and sustain. The works of Garvey (1977, 1979) and Schwartzman (1978, 1979), for example, have shown that "play is as much the oscillating in and out of negotiation as it is the dramatic content that those negotiations allow" (p. 305). Bateson's theory of play also proposed that "the making of choices about play frames is as much a part of the conceptual work of play as what it is that goes into the frames, dramatically speaking" (p. 305). Therefore:

it is artificial to separate the prior negotiations and the framing from the play itself. . . there is real value in thinking of even solitary play as a performance first modeled for the child by the mother in social play. A performance. . . involves the existence of actor, counter-actor, director, and audience. . . the child imports this into his solitary play or his social play with other children as a frame which he is seeking to establish. However, he cannot do this without some negotiations with them about how the frame will be defined or maintained. . . which is, to put it in Bateson's terms, the metalanguage of play. Negotiations are the language about play, which, because they are inseparable from its initiations and its continuations, must therefore be seen as intrinsic to the play. This I have sought to summarize here by talking of play as performance. (p. 306)

Sutton-Smith also discussed the structures of play, and suggested that the internal dramatic text of play requires: (a) a logical act of negation or a reversal of the usual contingencies of power; (b) the changing relationships between framing and drama (or context and text) as a child develops; and (c) the cognitive, conative, affective and social consequences of learning from play
(pp. 314-320).

In his discussion of the social consequences of play, Sutton-Smith emphasized that play is only one kind of social frame flexibility. Religious life and rituals are examples of states of social being similar to play "in which ordinary reality is suspended and in which there are new special metamessages about being in a new social frame" (p. 316). As Handelman (1977) suggested, in play we make believe—the departure from ordinary reality is not taken seriously. In ritual, we make belief—departure from ordinary reality is taken very seriously. Sutton-Smith argued that when children play (a behavior that includes breaking frames in an unusual way or with quixotic rapidity, and the childlike repetition of adult conventional frames) they are making belief, not just making believe:

They are gaining belief in the ordinary frames (social and object) by their voluntary control of their own buffered versions of those frames. . . . It is only with respect to adults who are not true believers that much of children's play must be disguised as make-believe. After all, many adults look at the religious activities of others as "fairy tales." Calling something a fantasy, or a fairy tale, or make-believe, is both a form of disparagement by non-believers, and a defense by those whose autonomous existence requires them to reconsider frames in their own particular way. (pp. 317-318)

There are also those frames of play which seek "to reveal the many other aspects of feelings and relationships that ordinary frames must deny" (e.g., Geertz's "deep play;" Turner's "anti-structure;" psychoanalysts' "compensation")
(p. 318). "Here new frames make belief about the whole earthly reality which experience encompasses, even though much of it is left out of ordinary frames" (p. 318).

Finally, there is ritual and religion, in which the larger frames of the cosmological order encompass the groundings of ordinary reality. Ritual or religion and play are really a social defense for the "outrageous behavior of making new belief instead of merely following ordinary reality" (p. 318). However, in play, the means become the ends because frame-breaking becomes a thing in its own right. Perhaps, he concludes, playfulness is the only kind of distinct play activity that should be considered. The rest is the expressive activity of constructing different types of frames at various age levels.

M. Katz, D. Forbes, G. Yablick, and V. Kelly

"Disagreements During Play: Clues to Children's Constructions of Reality" (1986), by Katz, Forbes, Yablick and Kelly, builds upon analyses of play that have considered its dramatistic or metaphorical aspects (e.g., Bateson, 1956; Goffman, 1974; Schwartzman, 1978; Sutton-Smith, 1979a). This study, which combines the methodological approaches of anthropology, literary analysis and cognitive science, investigates aspects of children's play themes--"their
structure, their potential clues to children's constructions of reality, and their role in social interactions" (p. 104).

We wished to consider further the problem of whether and how thematic conventions constrain or orient children in play in the way that others have pointed out for social and linguistic conventions. (p. 104)

In order to obtain information concerning children's own ideas (i.e., their scripts or schemata about their pretend play world), and the social use (as a resource or constraint) of themes in play, the investigators initially focused on disagreements during fantasy play episodes of previously unacquainted five-year-old American children. (The investigators believed that more disagreements during play would be generated by children who had not played together before the study.) Disagreements were identified when: (a) one child tried more than once to persuade another child to change his/her behavior; (b) there was explicit noncompliance to a request; and (c) the use of negatives by a child referring to another child's behavior or statement.

Secondly, guided by Kenneth Burke's (1969) notion of "dramatism," the researchers coded the texts of the fantasy play episodes in terms of (a) the dramatic elements introduced by reference or enactment (e.g., scene, character, behavior, object), and (b) the relationship of these to previously mentioned elements (e.g., consistent with the
speaker's previously introduced elements; in contradiction with another child's previously introduced elements) (p. 107).

An examination of explicit disagreements during play revealed that half were rule-like statements rephrasable in the form "Do/do not do this because . . ." (p. 108). These rules, which referred to relationships between dramatic elements, were real-life rules (as opposed to arbitrary pretend rules), and were used as a social strategy during disagreements. Thus, even during pretend play, children tried to justify their positions during disagreements by "referring to knowledge they believe has a pre-established consensual validity" (p. 112). In this way, disagreements during play reflect their thinking about the world (schemata).

The researchers also found disagreements that weren't detected by the explicit disagreement coding. Rather, these disagreements (as well as agreements) were thematically embedded. Agreement or disagreement in play was evident in the use of (or refusal to use) thematically consistent dramatic elements in the play episode. For example, one child, Melinda, somewhat reluctantly participated as a "customer" in a restaurant scene initiated by her playmate, Ronda. At one point, when Ronda, who was a "waitress," offered to get some coffee, Melinda responded with the question, "Could I get it myself?" Although Melinda had behaved consistently with the dramatic elements of scene
and customer, she was inconsistent with the element of mode of service, and was therefore engaging in partial noncooperation. This, then, may be a more subtle way to disagree with or manipulate a playing partner.

On the other hand, the researchers found that when disagreements halted joint play, the play could be repaired thematically. For example:

During a disagreement with Melinda, this time about waiter and cashier roles, Ronda announces she is going to paint and "be a artist person." Although this is thematically inconsistent with the restaurant scene, she later successfully repairs this break by saying, "and this art store is right next to the restaurant." (p. 111)

As children co-construct fantasy, they both shape and are constrained by the theme they have chosen. These constraints include "the cultural schemata and scripts of theme, which, like the cultural conventions of social and communicative procedures, help determine the nature of social interactions" (p. 113).

**Summary**

The newest theory of play, which is based on Bateson's (1972) work, is that play is primarily a kind of communication. Helen Schwartzman's definition of play offered in the closing chapter of her book, *Transformations* (1978), expresses this view. She wrote, "play is an orientation
or framing and defining context that players adopt towards something (an object, a person, a role, an activity, an event) which produces a text characterized by allusion . . . transformation . . . and purported imitation" (p. 330).

Sutton-Smith (1980) described the view of play as communication as:

a kind of interpretation or "reading" that a society provides to itself. The "messages" that are given, of course, vary with the society, but the implication is that in play "deeper" or "antithetical" or "supportive" clarity and connotations about cultural norms are conveyed. It seems probable that only in play can some of the ambiguities of human relationships be communicated. (p. 11)

One aspect of the nature of communication during pretend play is the kinds of explicit statements players make, such as those identified by Garvey (1977) and Schwartzman (1978) (e.g., statements of formation, connection, acceptance, counter-definition, maintainence, reformulation, negation of pretend). Among very young children the communication that sustains a play situation usually involves successive repetition and turn alternation (e.g., Garvey; Budwig, Strage & Bamberg) (Sutton-Smith, 1980, p.12).

Another aspect of this view of play that has received much attention from researchers has been the negotiations that take place both before and during play episodes.
Research indicates that negotiations become more important in the play of younger children and for children who do not know one another very well (e.g., Garvey; Schwartzman; Budwig, Strage & Bamberg; Katz, Forbes, Yablick & Kelly). Furthermore, children's peer groups have been reported to be characterized by networks of negotiations and patterns of communication (e.g., Sluckin; Denzin; Goodwin) (Sutton-Smith, 1980, p. 12).

Other topics that have been investigated from this perspective include: (a) how a game is played reflects adult social/cultural practices (Farrer); (b) play and metaphor construction (Schwartzman; Bamberg); (c) play and intimacy in a private setting (Kelly-Byrne); (d) how actions in games which are not permitted according to "ideal" rules, are acceptable according to the "real" rules of contextualized gaming (Hughes); (e) the use or refusal to use thematically-appropriate dramaticist elements in pretend play episodes (Katz, Forbes, Yablick & Kelly); and (f) the "quadralogic" or performance aspects of play (Sutton-Smith).

Bateson's message about play has received little criticism. Recently, sociologist Klaus Meier (1986) commented that "perhaps the most interesting aspect of Bateson's message about play is the overwhelming support and partisanship that it has produced" (pp. 273-274). He
noted that within the past fifteen years it generally has been the vogue for anthropologists to praise Bateson's contribution to play theory. In fact, the signal "this is play" has become a "buzz-phrase" not only for TAASP, but also in other contexts as well (p. 273).

Meier discussed some of the ideas of two researchers, Norman Denzin (1982) and Mihaly Csikszentmihalyi (1981), which question certain aspects of Bateson's theory of play. Although Denzin agreed that play is a name of a frame for action, he proposed that play is more than a paradox of logical types—that it "transcends communicative and metacommunicative contradictions" (Denzin, 1982, p. 23). He argued that Bateson's notions of the frames and messages of play "assume a recurring eidos, or essence" to the play frame experience. For Denzin, play not only is a directly perceived experience and a recurring feature of everyday life, but also is "an emergent, emotionally laden, social process—a recurring interactional form whose content and substance must be established on every occasion of its occurrence" (p. 23). Furthermore, "we cannot, without probing the subjective stream of consciousness of interacting individuals, locate the eidos, or essence in the play form of human behavior" (p. 24).

Anthropologist Csikszentmihalyi (1981) agreed with Bateson that play involves the acceptance of an alternate
set of rules and goals, so that playing occurs when the players can shift from one set of rules to another and are able to communicate that shift to others. However, he believes that play does not consist of a moratorium on reality, which is implied in Bateson's message "this is not real." Csikszentmihalyi stated that:

An activity is not play because it suspends or evades the rules of reality but because the player freely accepts the goals and rules that constrain his or her actions, knowing full well that he or she need not do so. (1981, pp. 19-20)

He further explained that by changing goals, play restructures reality to, at times, "risk the things that matter most in ordinary life such as life and money" (p. 17). Unfortunately for students of children's play, his arguments largely refer to adult activities, such as rock climbing, spelunking and skydiving, but they could possibly be extended to children's play that involves a certain amount of physical risk.

Anthropologists Kelly-Byrne and Sutton-Smith (1984a) proposed that the problem with Bateson's approach to play, as well as most subsequent researchers who have followed in his footsteps, is that a crucial aspect of play has unwittingly been de-emphasized or ignored. They cited Bateson's statement in Steps to an Ecology of Mind (1972), that "the psychological validity of the paradoxical play frame depends on... the continual operation of the
primary process part of the mind" (p. 184). Kelly-Byrne and Sutton-Smith further described Bateson's contention that:

the reason you can believe in these play realms, which are not real in secondary process terms, is that they continue to be real in primary process terms. The peculiarity of play, he says, is that it is a mixture of primary and secondary processes and as such is an archaic language somewhere between the mood signs of animals and regular human language. Play is like therapy in allowing intensive communication between people about love and hate and other relentless human emotions, but framed in such a way as to make the relationship more like a transference phenomenon that an ordinary relationship. The players say to each other let us communicate "in this particular sort of partly unconscious way." (1984a, p. 195)

Thus, Bateson is saying that play's paradoxes depend upon play's disguises of unconscious material (i.e., play's psychodynamics) (pp. 195-196). However, Bateson de-emphasized the dynamics of play because he was largely concerned with communication and metacommunication. His emphasis has led to the one-sidedness of researchers who have followed Bateson (with the exception of symbolic anthropologists who have considered both aspects in play theorizing, such as Turner, 1983) (p. 196).

To reconcile the two fundamentals of play—that it is a metacommunicative form and that it is a psychodynamic manifestation—the authors created a neologism (using the Batesonian term "paradox" and the Freudian term "disguise") for their theory of play as "paraguide." "Play is that
paradoxical language of communication and that disguised expression of human feeling which allows us to live as masked while in polite society" (Kelly-Byrne & Sutton-Smith, 1984a, p. 197). They urged that both phenomena be kept clearly in view by those who study play.

In closing, the studies reviewed in this section have wholly or in part incorporated a view of play as communication. Many investigators have utilized this view from a variety of theoretical perspectives, including structural analysis, cognitive science, literary analysis, symbolic interactionism, psychoanalytic theory, and ethogeny. This trend reflects an increasing sensitivity and acknowledgement by researchers of the complexity of children's play behavior, and a willingness to begin to integrate a variety of theoretical approaches.
Conclusion

Interpretations of children's play have changed over the decades with the development of anthropological theories. A number of disciplines, including folklore, education, sociology, and in particular, psychology, have also had an important influence on anthropological interpretations of children's play. The play of children has been variously interpreted from the viewpoints of: (a) cultural and biological evolution; (b) diffusionism and historical particularism; (c) structural and psychological functionalism; (d) Freudian and neobehaviorist theories of the culture and personality school; (e) cognitive and structural theories; (f) communication; (g) ethology; (h) ecology; and (i) a combination of theoretical and methodological orientations. That anthropologists and other researchers are increasingly adopting multiperspective approaches to the study of children's play underscores the complexity (and elusiveness) of this behavior.

Play has been, and continues to be, resistant to rigid definitions. As Sutton-Smith (1980) pointed out, the term "play" covers a wide variety of activities (e.g., sensory-motor play, symbolic play, fantasy, imitative play, sociodramatic play, exploratory play, games, sports, leisure, recreation). There doesn't seem to be any single term that
would be universally applicable to cover the meanings of the term as it has been used by researchers. However, Sutton-Smith suggested that cross-cultural empirical studies of play could be used to determine the most probable factors which would indicate that play is taking place (e.g., voluntary, fun, flow, secrecy, metaphor, pretending, inversive, power, transformations, dramatization).

Schwartzman (1978) suggested that play's resistance to rigid definitions may exist because play itself is always a defining activity:

Because of this quality, play requires interpretation and resists operationalization . . . researchers [must] adapt themselves to the character of their subject and not the reverse . . . investigators who are more tolerant of disorganization, unpredictability, and loose and fuzzy definitions and methodologies are more likely to produce theories that allude to play (and this is the best we will ever do). (p. 329)

Anthropologists are well-equipped to contribute to studies of children's play, Schwartzman insists, because in order to study people in their own terms, (i.e., in contexts familiar to them and strange to the researcher), the anthropological approach is necessarily less rigorous and therefore flexible.

Recently, Meier (1986) challenged Schwartzman's belief that defining play or clarifying variables is theoretically destructive to furthering an understanding of the nature of play. Following Kuhn's (1970) model of scientific changes or revolutions, Meier stressed that
for play theory to advance, paradigms of play must be integrated, and loose or fuzzy definitions should be abandoned for more precise ones:

There is a need for precise definitions and tightly drawn parameters, as well as the clear identification of models and positions no longer tenable. . . . to urge the elimination of unnecessary and unproductive conceptual contradictions and paradoxes, continued support of incompatible attributes, and the utilization of circular reasoning, is to call for clarity and enhancement. (p. 282)

Meier discerned several substantive difficulties in articles published in the first seven volumes of the annual TAASP proceedings. He argued that these problems need to be resolved in order to "reduce some of the chaos in the anthropology-of-play brickyard," and they include the play/game distinction, the play/work dichotomy, and the use of circular reasoning (1986, p. 283).

Although some researchers have clearly separated play from games in their studies (e.g., Piaget, 1951; Herron & Sutton-Smith, 1971; Stevens 1977b; Schwartzman, 1978; Bamberg, 1983), Meier found that the literature continues to implicitly and explicitly collapse play and games into one category. When researchers equate play with games, "they presume exactly what should be questioned, explored and resolved" (1986, p. 276).

The willingness of researchers to treat play as games, and games as play, has persisted over time. Huizinga,
Cailllois and other "classic" scholars treated games and play as virtually synonomous terms and used them interchangeably. Ethnographers generally described children's play in terms of formalized games, perhaps because, unlike other forms of play, games are conspicuous, ritualized events (Schwartzman & Barbera, 1976, pp. 26-27). Game rules and implements also are easier to study for comparative or statistical purposes than other types of play. Also, since play has been largely studied by men, the emphasis on competitive games to the exclusion of unstructured, imaginative play may in part be due to the sex-role perspective of the researcher (Schwartzman, 1978, p. 327; Sutton-Smith, 1980, p. 8).

Schwartzman emphasized that since games rule out ambiguity, spontaneity and flexibility (which are all characteristics of play), play must be separated from games if it is to be fully understood (1978, p. 327). Similarly, Meier stated:

> although games may at times possess important manifestations of play, it is better to differentiate these activities completely. Contrary to any postulations specifying a necessary identification or equation of play and games, it is possible for a game . . . to fulfill all the requirements of "gamehood" without demonstrating any play characteristics whatsoever. In other words, a game is not invariably as it is sometimes claimed to be,"the ultimate play form." (1986, p. 227)

As Schwartzman warned, "it may be true that our
language is playing tricks on us when we are led to say that we 'play games.' This may actually be a contradiction in terms" (1978, p. 327).

In a 1977 TAASP session, anthropologists had argued that in order to understand play, researchers must question the implicit assumption of a play-work (or play-seriousness) dichotomy (Schwartzman, 1978, p. 315). Meier (1986) found that some investigators assumed this dichotomy (e.g., Mouledeux, 1977; Sack, 1977) while others argued against it (e.g., Lancy, 1977; Humphrey, 1981). For example, Stevens (1977b) focused on an attribute of play described by Huizinga (1938) and later central to Csikszentmihalyi's (1979, 1981) concept of "flow"--the process of intense involvement with the environment. Stevens described instances of flow experiences in work or non-play situations, and concluded that the work-play dichotomy is a false one. However, as Meier pointed out, Stevens "assumed as a given exactly what he had to prove, namely, that the specific characteristic chosen for his discussion is the one and only essential attribute that defines play" (1986, p. 279).

Bateson had responded to Stevens' paper by arguing that the play-work dichotomy is not necessarily a false one because it guides the actions of individuals in many cultures (cited in Schwartzman, 1978, pp. 315-316). However,
Meier contended that "it is readily apparent that a dichotomy may indeed be false even if belief in it guides action" (1986, p. 279).

Schwartzman (1978) discussed how the pervasiveness of the play-work dichotomy in Western cultures has led to the widely held belief that play is unproductive and without consequence:

If play is an orientation, mode, context, or frame that can be adopted for marking behavior in any situation . . . then it is possible for play to occur in the presumably productive sphere of "work." (p. 327)

Research indicates that play is productive. Play's relation to creativity may enhance work, and play "generates and gives expression to a child's developing emotional, social and cognitive systems" (Schwartzman, 1978, p. 328). The abilities enhanced by play (e.g., sensitivity to context; capacity to adopt an "as if" set; exploring possibilities) are of significant consequence for the individual and society. However, the assumption of a play-seriousness of play-work dichotomy persists in many investigations.

An issue related to Schwartzman's view of play as an orientation or frame for marking behavior, and mentioned by Meier (1986) in a discussion of Bateson's theory, is the question of whether play exists in a separate time and space, apart from "reality." The view that play distorts
reality is widely held. According to this view, children pass through stages of play, into games, and finally into "reality" (i.e., the "illusions" of play increasingly come to correspond to "real" reality) (Schwartzman, 1978, p. 328).

Researchers who have adopted a view of play as communication do not see play as distinct from reality. According to Sutton-Smith, "in this kind of thinking ... play is a communication about ordinary life, and in combination with ordinary life, constitutes reality" (1980, p. 11). In other words, according to this view, play can occur at any time and place because it creates and contains its own "reality," in which events are alluded to rather than distorted. Furthermore, "over time, the content and process of these illusions may shift, but these changes can in no way be charted by the construction of linear stages" (Schwartzman, 1978, p. 328).

Csikszentmihalyi (1981) has similarly argued that for each person, reality is defined in terms of the goals he or she attends to at any given time, and that play only exists where there is awareness of and shifting between sets of goals and rules.

Another major problem Meier (1986) found in the literature was the use of circular reasoning. By way of example, he discussed Sutton-Smith's (1983b) article on cruel play in late 19th century New Zealand. After citing
examples of behavior on school playgrounds during this period (e.g., fighting in special "pits;" scatalogical initiation ceremonies), Sutton-Smith questioned the widely held view of play as always being intrinsically motivated and a pleasurable experience. He concluded that such defining characteristics have resulted from the idealization of play by the upper middle class in Western society.

Meier argued that just because the activities took place on a playground, Sutton-Smith should not have assumed that the behaviors reported were instances of play. Meier asked, "how was it determined that the activities described were instances of play in the first place?" and added, "it appears as if Sutton-Smith simply presumed what he had most to prove" (1986, p. 280).

Although Meier's warning about the utilization of such techniques in the literature is important, perhaps he places the anthropology of play in a light that is too "scientific" and deductive, since so much of anthropology is based on observation, inductive thinking, and "playing" with ideas. In fact, the current tendency for researchers to utilize multiperspective approaches in analyses of play may be seen as a less rigorous move in the direction of paradigmatic integration that Meier is calling for.

Mention should be made of a conceptual paradigm of play proposed by Joseph Levy (1978), which contains elements
similar to those proposed by Sutton-Smith (1971a, 1974, 1976b). Levy's play paradigm "represents a framework for investigating three interrelationships that reflect that play is both a cause and a consequence of man's socialization and evolution" (p. 57). These interrelationships (schematically represented as a closed system with feedback loops) are: (a) the determinants of play behavior (genetic, sociological, psychological, environmental); (b) the structure of play behavior (elements, conditions, processes); and (c) the consequences of play behavior (to the biosystem, social system and human system). The paradigm also takes into account how the determinants of play affect the characteristics of play behavior (i.e., suspension of reality, intrinsic motivation, internal locus of control). Levy's paradigm helps to pull together many play-related variables, and could be useful for behavioral scientists interested in transdisciplinary approaches to understanding play behavior.

In the conclusion to Transformations (1978), Helen Schwartzman listed five directions (paraphrased below) that anthropologists and others should take in future investigations of children's play:

1. Most theorizing has been done on the basis of studies of Western middle class children. Anthropologists must produce ethnographies of children's play that are both
textual and contextual in orientation.

2. There is a need for research of the varying and widening contexts of children's play, including play in the immediate family, or play in the compound, village, neighborhood or school. These investigations should show how the contexts affect play texts, and how the play texts comment upon or transform the context.

3. There is a need for investigations to determine what children actually learn in play. Are specific roles or skills learned? Do children learn to learn? What are the relationships between play and sex roles, play and occupation roles and play and cognitive skills?

4. Piaget's, Erikson's, and others' theories of play stages need to be cross-culturally tested. Early infant play in particular needs to explored in non-Western cultures.

5. Children's verbal play and their cultural distribution need to be researched. Schwartzman suggested that researchers examine the possibility that most types of children's speech play are parodies of adult-child communication events and relationships (pp. 329-330).

Sutton-Smith (1980) saw a need for more empirical research exploring autonomy and control achieved exclusively in play, including controls over physical and symbolic skills, levels of commitment to action, variability
and flexibility, time pressure, amount of novelty one wishes to experience in play and the use of space (p. 9).

To these suggestions one might add that future investigations in general should: (a) utilize less "adult-centric" approaches, and take into account the players' perspectives; (b) examine play in private settings, as suggested by Kelly-Byrne; (c) explore child-structured play as Schwartzman (1978) implied in her second recommended research direction, and as discussed in her 1983 article on this topic; and (d) continue to utilize and integrate a variety of methodological and theoretical perspectives.

Brian Sutton-Smith (1980) summed up the current state of affairs regarding the human play behavior research:

It is my view that we are so completely surrounded by, even immersed in play that we cannot at present know its full involvement in our lives. Recovering as we seem to be gradually from the body-mind and work-play dualisms of earlier centuries, we have as yet only a nebulous grasp of play's manifold nature and its control of our lives. Like Columbus we are beginning to make some useful empirical beachheads ... We are in no position as yet, however, to define this new continent in which we may be housed for some time to come. (p. 14).

It is this writer's hope that an increasing number of anthropologists will continue to explore human play behavior. The flexibility of anthropological methods and approaches is particularly suitable for investigating this complex, elusive (and intriguing) behavior. The challenge of investigating play behavior can only help to
further the development of new methodological and theoretical approaches in anthropology.
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