THE ASSOCIATION FOR THE ANTHROPOLOGICAL STUDY OF PLAY

NEWSLETTER
Volume 5 Number 1
Summer 1978

FIFTH ANNUAL MEETING

The Fifth Annual Meeting of TAASP will be held between March 28-31, 1979 at New England College in Henniker, New Hampshire in conjunction with the Northeastern Anthropological Association (NEAA). Robert A. Manners (NEAA President) reports that "this is a marvelous site for the meetings and that we can expect royal treatment from the administration, faculty, staff and students of this New England College."

All individuals wishing to present papers at the meetings should submit an abstract (250 words or less) to: Dr. Helen B. Schwartzman, Institute for Juvenile Research, 1140 South Paulina Street, Chicago, Illinois 60612. Deadline January 5, 1979. Dr. Schwartzman and Dr. John M. Roberts (TAASP President-Elect) will jointly review all abstracts and handle program planning and arrangements.

CONTENTS

Editorial

Notices

Interviews with Geoffrey Watson; and Bernard De Koven and an article, "High Play," by De Koven.

Book Reviews: "The Well Played Game" "Ways to Play" "Joy and Sadness in Children's Sports"

Articles: "Play in Prehistory" by Paul Epstein "Card Games on Truk" by Francis J Clune "The Anthropology of Dance Ritual" by Judith Hanna

"Make-Believe Play: a multi-disciplinary vision."
by Shlomo Ariel "Bibliography on Audio-Visual Materials on Children's Play" by Merrill Schindler
EDITORIAL

This issue is a little later in coming than we had hoped it would be. We have been waiting for John Roberts reply to Philip Townshend's excellent article evaluating the conflict-enculturation theory from an ethnographic viewpoint. So for that matter is Philip, who is now settled in Kenya where he is located at P.O. Tarasas via Malinda, Coast Province. He says "I'm looking forward to reading John Roberts reply to what must unfortunately have taken on the air of an attack on his work. For two weeks we've been here in Ngao village near Tarassa, about 130 miles north of Mombasa. I haven't really got down to brass tacks research-wise, being rather preoccupied with finding a house, establishing supply sources of food, getting kids into school etc. Mankala is played here avidly under the central tree from around 10 to 18:30 each day, and there are plenty of variants within easy reach, so from the comparative angle there shouldn't be any lack of material."

Meantime back in Pittsburgh John Roberts and Herbert Barry are doing some more runs through the computer to iron out, perhaps, some of the problems that Philip has raised.

Those who were hoping that there would be TAASP representation at the 10th World Congress of Anthropological and Ethnological Sciences will be happy to hear that several of our members will be presenting papers; however, our expedition will not be funded by the Smithsonian Institution, as requested. TAASP members who will be presenting papers are: Alyce Cheska, George Coelho, Mary Duncan, David Lancy, and Philip Townshend plus other presenters as Roleas Pensa, Tichard Sorensen. I will be in New Zealand just prior to that addressing the International Conference on the History of Sport and Physical Education in the Pacific Region (University of Otagi, Nov. 20-24) and had been hoping to return through Delhi. Naturally I share my disappointment with the rest of you.

In this issue we have some interesting encounters with outstanding persons in our field, a practitioner, Bernard De Koven; and a researcher, Geoff Watson. Watson's work is particularly important because he finds trends in the USA and Australia which I know to be matched in New Zealand, and which suggest that we are confronted with a novel emerging socialization phenomenon, which we have tended to neglect because of our prejudices on behalf of the Tom Sawyer in all of us.

We are especially thankful to Alyce Cheska for sending us on some of the most interesting papers from her students. We also include in this issue a most useful bibliography on films by Merrill Schindler.

At the American Psychological Association I met Shlomo Ariel who had been sending me his innovative papers on children's play. I was hoping to get some biographical material from him, but was much more delighted to be offered the theory of make-believe play which is in this newsletter. I think you will agree with me, that this is a very important paper. When did you last read or hear a systematic account of make-believe play? 

NOTICES

1. The School of Architecture and Urban Planning, University of Wisconsin 63201; has a variety of publications, some having to do with playgrounds in particular, by Gary Moore there are: "Environments for Exceptional Education" ($5.00); "Elements of a genetic-structural theory of the development of environmental cognition" ($5.00); "Developmental differences in environmental cognition" ($5.00); "Playground evaluation in Sydney" ($5.00); "Philosophy and issues in the design of play environment" ($1.00).

2. The Laban Institute of Movement Studies, P.O. Box 723, New York is offering this Fall a new movement institute for training in this kind of analysis (NY 10011).

3. The publication of the Montreal Olympic Congress in the Physical Activity Sciences. (10 volumes), to be released through Symposia Specialists, P.O. Box 610397, Miami, Florida 33161. 5000 pp. Price not mentioned.

4. 8th International Congress for the History of Sport and Physical Education to be held June 4-9, 1979, in Uppsala, Sweden. For details write S-105 24 Stockholm, Sweden. Applications to be in by October 15th, 1978 (binding by March 15th, 1979).

6. INSPORT NEWSLETTER, from the International Sports and Games Research Collection, 102 Memorial Library, University of Notre Dame, IN 46556. Much interesting information about acquisitions to the collection.


8. Childhood City Newsletters. We are in possession of numbers 10, 11 and 12, and are clearly being outgunned by their vigor. There are reports on environmental education from all over the country (#10), Miscellanea (#11), Report on EDRA Conference (#12).

9. Yearbook of Research Institute of Physical Culture and Health, Jyvaskyla, Finland, 1977. Includes papers on sport, play, movement etc. 40100 Jyvaskyla 10 Finland.


11. The Society (#10 above) has a Bulletin. Editor is Sue Moxley, Dept. of P.E., Dalhousie Univ. Halifax, Nova Scotia, Canada B3H 3J5.

12. Stephen Cox, Editor of the University of Nebraska Press is interested in publishing books on Sports.

13. The University of Pennsylvania Press which publishes the American Folklore Series, is contemplating a Children's Folklore Series. There is now a children's folklore section of the American Folklore Society. John McGuigan of the Press is the interested editor.

THE REHABILITATION OF LITTLE LEAGUE
An Encounter with GEOFFREY WATSON

At the Annual Meeting of TAASP in Notre Dame we were fortunate to catch up with Geoff Watson at last. We asked him to provide us with a bibliography of his widely disseminated publications and some information about himself received this summer. These follow:

"Between Melbourne and Alberta I taught in several high schools and a grammar school at Geelong. This created a level of frustration that was apparently adequate for creating incentive to escape to Alberta. With Max Howell and Gerry Glassford, an initial socio-cultural perspective was forged, providing a solid foundation for the trip to Urbana from Edmonton. This was initially a time of graduate-student self-doubt and personal conflict, but through the support and interest of several friends, was resolved. These included Earl Zeigler as a first year Ph.D. mentor; Mike Ellis and Rainer Martens as principal motivators in play research and social psychology of physical activity; Norman Denzin, as educator in the complex but personally meaningful sociological perspective of symbolic interaction; and Gunther Lüshchen, as dissertation advisor, demander of excellence and subsequent colleague and friend.

As a Ph.D. graduate my interest lay in social theory applied to the effects of institutionalisation on children's play and games. The dissertation had involved extensive naturalistic observation, interviewing, and general informal interaction with some 90 little league families and a sample of their non-involved equivalents. This experience had raised several issues which constituted a number of research projects subsequently undertaken over the past five years at Sacramento (with Tom Kando) and more recently, Perth, in Western Australia. The development of research problems has followed roughly the following sequence; why have children's games become so heavily institutionalised and what impact does this process have on the social organisation and meaning of the game? What are the reward systems operating in children's games and how can these be validly represented through observational procedures and ethnographic forms of research? How do these rewards vary according to age, sex, social class
background and community structure. Answers to these questions have been gradually constructed form a series of studies of various sports including Little Athletics, junior football, hockey and soccer. More recently, this research has become more integrated through the attempt to develop a theory of 'social motivation' in play and games. The findings from our recent research project are to be presented at the forthcoming I.S.A. congress in Uppsala. The conceptual framework has emerged from Brian Sutton-Smith's research together with a strong orientation to the works of Mead, Piaget, Goffman, White and more recently Csikszentmihalyi. Papers which summarise these developments are included in the following personal bibliography."

STUDIES OF LITTLE LEAGUE BASEBALL:


STUDIES IN LITTLE ATHLETICS (AUSTRALIA)*

"The Meaning of Parental Influence and Intrinsic Reward in Children's Games," proceedings of National Conference on Sport, Society and Personality, La Trobe University, May 1975.


* The first three papers are included in the research report entitled "Little Athletics and Childhood Socialisation," Community Recreation Council of Western Australia, P.O. Box 66, WEMBLEY. W.A.

EPilogue

What Watson does not say about his work, however, is that it seems to show that the adult organization of sports for preadolescents is not all bad. There is a widespread belief amongst intellectuals, which I have often shared, that Little League this or that, involves the exploitation of the young by failed professional players. This prejudice against institutionalized sports for the young goes back to the turn of the century when folklorists were lamenting the loss of folk games (Newall, Douglas et al), although the playground organizers like Curtis, Gulick, Johnson and Lee were finding little value in such folk "scrub" play where city boys got up to gambling and other forms of mischief.

Sixty years later, Watson's studies of sport institutionalization both in the USA and Australia seem to show that children enjoy it and value it mainly for its intrinsic satisfactions. Despite any rigidities in the adult organization of these things, the children appear to be there largely for the game's sake. By and large children of the preadolescent years seem to find more value in the institutionalized sports than they do in their own folkplays. While there might be some response set working here, on the surface this should call a pause to our prejudice. I think Watson has made a very important case
for the presadolescent era as quite distinct in its game culture from the preceding early childhood phase (6-9 years) in which folk forms still dominate (and Piaget's explanations hold fire), and the adolescent phase where the dominant trend is towards more personalized forms of recreation and away from team sports. At this particular phase in Western history, team sports seem to have settled down upon preadolescents as their appropriate temporal locus. In addition, however, Watson's findings indicate, it seems, that team sports continue to be more important in the lower status groups perhaps in the same way as they were in mid status groups several decades ago. Lower status persons can still use physical skill games as an achievement model, while higher status persons have gone onto more differentiated and symbolic expressions of achievement. In a recent paper Douglas Kleiber ("Games or sports for children: What difference does it make"), presented at AAHPER in 1978 he also did not find dire consequences for those who participated in institutionalized sports. Watson's study of Junior Football in Australia is the exception to his other studies of athletics and baseball, insofar as the team demands that game seem to be beyond the ingenuity of even the coaches. There is so much crowding on the field that nothing runs according to either plan or skill. I shouldn't finish without mention of Watson's valiant attempts to bring together a variety of theoretical orientations; in particular, views on play and games as intrinsically motivated, as involving social reciprocity, and as requiring mastery. He assesses these in terms of the preadolescent age group, status and sex differences in a group of very important empirical papers.

AN ENCOUNTER WITH BERNARD DE KOVEN
author of THE WELL PLAYED GAME (Doubleday, 1978)

For many years, over a decade, Bernie De Koven has consulted urban and other groups on how to use games for ameliorative ends. He probably knows more of a practical nature about how to use games in a healthy way with children, adolescents or adults than any one we know. He began with theatre games, but in due course gave those up for real games, because that is what he found kids really cared about. The real games meant more to them than any thing else he could introduce. Recently he has been an advisor to the new games movement (Fluegelman A: The New Games Book: Doubleday, 1976).

The subtitle of his book THE WELL PLAYED GAME is "In a well played game, everybody wins". My first impression was that this is just absurd. I placed Bernie in the co-operative game movement. Simpler cultures and young children prefer collaborative games, because their survival as a group depends on such ability to establish order over disorder.

But what I gradually came to realize is that Bernie is talking about an entirely new species of game. He is not putting down competitive games. He is transcending them with a new kind of collaborative-competitive meta-game in which, while competing, each player is concerned (and especially the best player) to so judge his own acts that the margin of uncertainty between the players stays at that maximal point, (rather than at that minimal span,) which keeps things exciting for both. The better player must continually find a way of handicapping himself so that he is in a real contest partly with himself and the other player. But in the book Bernie puts it in much more specific and personal terms. No review can do justice to his personality and the quality of his writing.

I really think games are sacred for him. They ought to be a sacral event is the point he is making, and there is a whole new way that we can go about it.

In mid summer my workshop at the Univ. of Penn. went out for a picnic and game experience at Bernie's Game Preserve (R.D. 1 Fleetwood, PA 19522; phone 215, 987-3456). He has everything there from Manca to Electronic Television Games, and an enormous field and an enormous ball to roll around it. The students clearly enjoyed it but were also somewhat mystified. Here are some of their remarks:

"My husband and I used to play chess all the time but he beat me so often that I just couldn't play anymore. But after playing at the Preserve with different people all day, I felt that I could tackle it again. I had a better sense of myself as a player."

"It's a great place, but he doesn't seem to push it. It's almost as if he'd rather not have people there. He doesn't seem to want to advertise it particularly."

"That's because he's had some freaky groups who came out for other purposes than just to try on games with each other."

"It was a nostalgic trip for me. Twenty-five acres. Chickens and garden. It's a
particular kind of retreat."

"I can't see how we could all run such a thing though. What do you do about need achievement. I couldn't keep my job. You can have a time and a place for games, but it can't be full time."

"Is he a threat because he has left society just to be a game player. A kind of Priest of game playing who is in no hurry for the masses who don't find it sacred as he does?"

"I found him kind of cynical about it. Now the other fellow Bill is the one who is into it right now and it's like his bag of marbles and he's not too sure he wants us to play with things so freely. But Bernie seems to be a bit lost, as if he's not sure where to go with it next. Is it a museum; is it a sacred place; is it a recreation centre? Is it an escape for him and Bill and their wives? What is it?"

"I just thought it was a great place to see well made games. A kind of antidote to the shoddy stuff which is in the stores."

"Well I thought he cared too much about protecting them. He kept telling us about the top of that damn billiard table."

"He is a kind of alternating personality, between the rabbi and the comic. Everytime he starts to say something serious he stops half way through and tries to mock it, or throw the line away. He is his own Guildersteen and co."

"For one who has by and large taken a few real games seriously, and most theory of games seriously, but nothing much else about practical games seriously, Bernard De Koven has quite a challenging serious message about how to be serious about non-seriousness in a new way."

After we had written the above, we wrote and asked Bernie for the game description that he had appended to the wall the day we were there. It follows:

HIGH PLAY
by
BERNARD DE KOVEN
The Game Preserve
Fleetwood, Pennsylvania

Bill and I were playing Ping Pong. Bill's a "better" player than I am - more skilled. So, playing "the game" wasn't any good for us. Playing for score wouldn't teach us anything we didn't both already know.

We decided to volley. Bill asked me what my best shot was. I showed it to him - backhand on the right side of the table. So, whenever possible, he played that shot to me.

Every now and then, as we volleyed, something happened that was scary, for both of us. It was scary enough to make us both put our paddles down, in awe, actually in awe. We had connected to something - something bigger than us, other than what we were able to understand as us - a shot and a return and another return and yet another return, a unity of mind and body, of person and person; an experience of excellence that was all out of proportion to what we knew we could do, to what we understood ping pong to be. We couldn't account for it. I'd returned with my forehand. I hadn't planned to do it. I just did it. It was if my body had learned to play, all of a sudden, had learned exactly, faster than my mind, better than I could tell it. But I wasn't out of my mind or out of my body. I was there, conscious, total, complete.

I'd no idea what was happening to Bill. Except that when I looked at him, we were both laughing. And I knew this was a connected thing that was happening - me to him, us to the game. And it was really happening, for both of us, because of each of us, and we both knew it.

And if all that wasn't weird enough, stranger yet was how familiar it was. We weren't in heaven, you know. We were in the barn, playing ping pong. That's all. Just ping pong. Just me and Bill. And the game, well, it just felt right, that's all, just right.

So we laughed, and we walked away from the table, because it was just too much, just too familiar.

It was hard to take it seriously.

Except when Bill went home to West Virginia, everybody told him there was something different about him - a calm, a lightness. And when I saw him again, a couple of weeks later, just seeing him put me back in that place, playing ping pong, and I ran to him and hugged him just like he was home base or something.

And we had another game. It was different.

The rush was nothing like that game two months back. But, again, we found ourselves amazing each other, playing well, playing right.

Later on, we forgot about the whole thing. It slipped our minds, is all. We were too busy to get into another game. We were into survival, if you know what I mean. No time to play so deeply. A quick game of something else, maybe.

A couple of years later, Bill and his family moved to my farm. Bill just needs to
be here, that's all. And we're both struggling, his family and mine, and it's good to see each other, and, so, we might as
ll try struggling together.

He starts working on the Games Preserve. The Games Preserve. Since I first moved here, more than eight years ago, I had the idea of making a games preserve. I didn't know for sure what a games preserve was. I just got a lot of different games and made a nice place for them in the barn, and sometimes I thought it was a recreation center, sometimes just a place for me and my family, sometimes a school about games, sometimes a retreat, but all the time I knew I wasn't calling it what I wanted it to be. I was embarrassed, maybe, or just worried that people would think I was crazy. Anyhow, Bill starts putting things in order. I tell him, look, go ahead, do what you want to do with it, I don't care. This place has been too much of a hassle for me. If you can make it work, go ahead, you got my blessings, the barn, and all the games therein.

So, Bill starts doing it right. Sweating, struggling, figuring out the best place for the pool table, the lighting, here to put the cues, chalk, beads. And every now and then he comes up against one game too many and freaks out and we go through the barn, deciding what to throw out.

And the place gets together, slowly, but very together. Only the best games remain. Everything has a place. All the pieces and parts. Good paddles, good balls, good lighting. The Go set in the quiet games area looks like an alterpiece. Everything is right. Well, most things.

I begin to want to give it my energy again. We decide to open this place to anyone who wants to play here. We figure a $20 fee should be enough to take care of utilities for a year, if enough people sign up.

Some people come. A few. A group of people one day. But it doesn't feel right. Bill plays a volley with someone, getting close, and that person stops the volley and says, "ready for the real game?" And Bill comes out of the barn shaking. Wasn't the volley a real game? Hadn't it been, for s, more real than we ever thought a game could be?

And then, at 2 a.m., some people pull in and leave the barn a mess and the pool table cloth ruined, and we look at it and realize that we're going to have to get $140 to get it recovered, and we look at each other and we say, no, this isn't what we wanted this place for, this isn't what made us build it.

It's not just a facility.

So, our families make a final, painful "loan" and we get the table re-covered, and exactly leveled, and the cushions richer than ever, and the table is so beautiful that we don't want anybody to play on it.

It takes us a long time to get over all this. It isn't the games. It isn't even the place. There's something else - something that led us to build it, to share it, some compulsion, a craziness like that guy in Close Encounters ruining his home to build a model of a mountain he'd never seen before.

What we were building, have built, is a temple of play. It's embarrassing. It's just games and fun we're talking about, wedded to. No, it's more. It's high play. It's, dammit, a spiritual experience.

None of the religious words we want to use fit the place. They all seem wrong: spirit, cosmic consciousness, temple. But every attempt we make to deny what we've built, to put it into any other terms, has led us to profound disappointment.

Ever since I got involved in play, as my focus, my profession, my vocation even, I've had trouble accepting the power of what I'm playing with. It's ridiculous. It's certainly ludicrous. It's just games. It's been a mystical experience for me - an experience of union. I've played with everybody I could find, touching people I couldn't reach in any other way, experienced community, love, harmony, delight; and all the time, though I've known that this is incredible stuff, stuff that seems to be teaching me about everything, stuff that's leading me, teaching me about creating reality, I've never been able to admit it to anyone else. I've never quite been able to admit it to myself.

There is such a thing as high play. There is a state of play in which a game becomes transformed, and carries the players with it, into the same place that religious people talk about. We built the Games Preserve because we needed to make a place for a congregation of players to meet all that there is to meet, in it's finest form. We've arranged the games like a craftsman would lay out his tools, like a priest would prepare the consecration. You can't even call it ludicrous any more. It's beyond that.

The barn wasn't in good shape when we had that first ping pong game. We didn't even have the best kind of ball to play with. The lighting was lousy. But we had to build it right. We had to make it perfect. Because
that way we can remind each other of the perfection we had experienced, playing ping pong. Because we can no longer deny the sacredness of that experience. We saw the ridiculous become sublime and we laughed.

High play. Sacred play. Mystical play. We don't know what to call it. We know it doesn't need a special place. We know we were crazy to build the Games Preserve. But now that we've created a special place, we've at least made it unavoidable. For us and some of the people who'll come here, it's a temple, a sacred arena where all the games are stages where holy spirits dance, and make us laugh.

BOOK REVIEWS

1. The Well Played Game by Bernard de Koven. (Doubleday, 1978) $3.95

We have dealt at least with the spirit of this book in our encounter with Bernie above. It is an essential book in the new anti-structural play movement in this country. This is a sacral statement by one of the new priesthood, in his earnestness, humor and gentleness he is my favourite exponent for this new approach.

2. Ways to Play by James C. McCullagh

Subtitle is: Recreation

Alternatives, Rodale Press, Emmaus, PA at $6.95. This is a tour guide to some of the new developments occurring throughout the country in the way people are revising their ways of playing. There are chapters on history (Paul Hogan); recycling play areas (McCullagh); new Trails (McCullagh); new uses for old spaces (Nielsen); gymnastic courses (Buxbaum); Bikes (McCullagh); The Chase (Ringo); the Dance (Franke1); The Game (DeKoven); etc., etc. A very informative account of some of the diversity that defies our usual formulations.

3. JOY AND SADNESS IN CHILDREN'S SPORTS by Rainer Martens. Human Kinetics Publishers, Box 5076, Champaign, Ill. 61820.

Frankly I thought I was in for a shock with this one, but it is a superb book on what is happening to preadolescent children in the sports that are organized for them. There are articles by those who deplore what is being done to these children, how they are dominated by adults, how there is no fun in their games, how the whole emphasis is on winning, how their fames are impoverished, how children get eliminated, how different maturity levels in the children playing each other have pernicious effects, how girls are excluded, and so on. But then, on the other hand, there are articles showing on the contrary that most children in these games enjoy them more than sand lot alternatives; that where the coaching is sound and the coaches' values fair, much of value follows.

Rainer Martens comments throughout are cautious, yet fair. For example: "I believe that Devereux has legitimate reason to be concerned about the effect of some sports programs on the development of children. In some cases sports programs for children do indeed become over organized...I believe the solution to the problem of over-organized sports is not a return to the nostalgic sand lot of days of the past...Children can benefit from both structured and unstructured play in different ways and should have time for both." (pp. 137-138)

Martens, along with Watson above, is a social scientist clearly identifying for us that the old age period, the gang age, has to be reconceptualized. The current gang age is in many ways a more socialized one than the older Tom Sawyer, Penrod reality. These children are as much concerned with modelling the adult reality (of sports) portrayed on television as with older kinds of nomadic urban or rural gang behavior. The individualism modelled in those older writings is hardly sufficient or appropriate for today's corporate world. The base in collaborative behavior has to be deeper, and although much is said of the competition and the winning, the deep structure of rule obedience tends to be neglected. What is being taught (we speculate) is that you can't win except through quite complex organizations. Given that adolescents in the same culture tend subsequently to show less preference for major sport and more for marginal forms of differentiation, we may perhaps assume, that a new and more symbolic individuality arises on top of this new kind of preadolescent socialization.
PLAY IN PREHISTORY:
RESEARCH GAPS AND SOME QUESTIONS
by
PAUL EPSTEIN
Department of Anthropology
SUNY at Buffalo, New York

It is evident that there exists a somewhat large and self-revealing gap in the kinds of interests held by archeologists. That gap, or missing interest, is about the nature of play in prehistory. Widespread social science research about play has become fashionable in recent years. Although anthropology in general may be represented by the Association for the Anthropological Study of Play, this research fashion has yet to find its way into archeology, an anthropological sub-discipline. Given the current general epistemology of archeology, there is reason to hope for a "filling-in". Some recent attention has been encouraging (Fox 1977; Greendorfer 1975).

Theoretically, archeological sites contain information with which to reconstruct, interpret and explain behaviors enacted by former inhabitants of a culture. Artifacts are viewed as components of dynamic behavioral systems (Flannery 1967), and artifacts are explained with reference to structural and functional characteristics of cultural and non-cultural (environmental) systems (Binford 1972; Watson, LeBlanc and Redman 1971). Explanations involve hypothesis testing; the formulation of testable hypotheses leads to formulation of general laws used to describe, explain and predict cultural differences and similarities foundin the archeological record (Binford and Binford 1968; Watson, LeBlanc and Redman 1971). The testing of hypotheses serves, then, as an analytical tool with which to study integrated behavioral and non-behavioral systems (Plog 1975).

Theoretically, it should be possible to examine archeological sites for evidences of artifacts reflecting behavioral systems called play. As a behavioral system, play may be culturally specific, functioning as a cultural persistence mechanism. Farrer (1976:87), for example, discusses Mescalero Apache children's play of a circular game of tag as a replication of Mescalero Apache adults' communication systems. Play may also be a behavioral system functioning as a cultural "change agent". Here, play is a set of behaviors that are random or novel; the active manipulation of behavioral messages through play makes potential things that may later become adaptive (Mahony and Sutton-Smith 1976:11). For Kroeben "play impulses" are motivational forces behind cultural inventions (1948:357). Huizinga, taking a somewhat larger view, considers social order as a result of an active historical play factor (1950:173).

The number of hypotheses that could be formulated with which to analyze artifacts from extinct cultures for evidences of play behavioral systems are possibly without limit. It may be initially necessary to formulate separate sets of hypotheses concerning both play for cultural persistence and play for cultural evolution. That above identified gap in archeological research interests suggests, as a point of departure, the testing of a very general hypothesis; therefore, I propose the following initial hypothesis: This hypothesis predicts that the number of citations in archeological literature concerning artifacts suggesting play behavioral systems will be greater for more complex levels of socio-cultural integration than for less complex levels of socio-cultural integration.

The result of some thirty or more hours of library research resulted with a negative test. It was not possible to find either supportive or non-supportive evidence for the hypothesis. A public review of what evidence was found would serve to illuminate that gap in archeological research interest. The evidence is formulated into three classifications for this review.

1) What there is, is trivial. Indices to several anthropological and archeological journals were explored for headings suggesting the topic of play. The General Index to the American Anthropologist, volumes 1-50, contains no listing for "play" in its subject index. There are, however, listings for "games". These listings refer to journal articles that describe occurrences of games and their rules among extant New World Indian cultures. The General Index for issues of the Anthropologist appearing between 1949-1969 lists neither the topics "play" nor "games" in its subject index. Following 1969, there are several articles on play, none of which deal with archeological data. Of volumes of Abstracts on Anthropology, only three reference articles for either "play" or "games"; none of these references to articles with archeological data. Additional topics in these guides, and some others, including the Peabody Catalogue, the Social Sciences and Humanities Index, and Abstracts of Folklore Studies Index were examined. These additional topic headings included "burial", "burial customs",...
"cave finds", "cave dwellers", "children", "child care and training", and "toys". Under these headings, a few articles were referenced that report evidences of play at archeological sites. These few articles mention "play artifacts" in passing. For example, Watson (1929) presents detailed geological and geographical descriptions of caves near the upper Gila River in New Mexico. Included in a discussion of cave finds was an infant burial; associated with the infant was a doll made of "wool cord, wound on a stick with a doll's bed made of yucca fibre" (1929:306). For a second example, the state of Minnesota's 1928 report to the Committee on State Archeological Surveys of the National Research Council mentioned that "some of the unusual finds were ... a copper bell in a child's burial" (1929:352). If these are trivial examples, then it is because interest in prehistoric play has been trivial.

2) Whatever else it is, it is not play. Within this category are examples of researchers describing unusual cult figurines as "for purposes unknown" or as "possible prehistoric art" without discussing the possibility of these unknowns as play artifacts. Begole (1973), commenting upon the possible cult purposes of a pictograph of a horse with rider that resembles a figurine found in the same area, does not consider these artifacts as representative of play behaviors. The split-twig figurine debate (Euler and Olson 1965; Tripp 1967; Pierson and Anderson 1975) concerns "intriguing animal effigies" found in caves from northern Arizona to Utah. Radiocarbon dating estimates an age from 3000 to 4000 B.P. Authors either consider cult purposes for the figurines or simply report yet another split-twig find; there are no considerations that these figurines may simply be toys. Schafer (1975), concerning functions of figurines found in the lower Pecos Region of Texas, acknowledged that possibly the figurines were toys, but that he couldn't support this notion. No reasons are given.

3) Perishables. Suggested by this category is that materials used to construct play objects may be limited only by some cultural definition (the researchers or cultures) that certain materials are only to be used for some "this" and never for some "that". Artifacts used during play may be sticks, reeds, stones or some other object sufficing as a symbolic play "whatever". Artifacts may also have dual purposes; the hunter's bow as the child's harp. There is the problem of "playing at culture" (Greendorfer 1975); there is an additional problem of play, as a behavioral system not necessarily requiring objects. In this regard, the absence of literature concerning prehistoric play is an absence of artifacts that have perished or never existed.

It is evident that new research strategies are needed. The absence of evidence with which to support or not support the above general hypothesis is, of course, a problem with research to date, as well as a problem with the subject matter of play in prehistory. Future research strategies would involve constructing models integrating occasions of play with other components of cultural systems; these models would generate hypotheses to be tested concerning functional and structural features of play (i.e., maintenance and creative features) as related to other behavioral systems. Hypotheses guide archeological techniques for collecting material data. The intent is to reconstruct, interpret and explain occasions of play in prehistory. Such a general strategy begins to render manageable such research questions as: When did adult members of an ancestral population of Homo sapiens first begin to play? Or, Why is it that three million years ago, a time of environmental change, the archeological record shows both cranial morphological changes in australopithecines (brain enlargement and reorganization) and tools (suggesting changes in behavior patterns and cultural complexity), rather than those different environments, brain sizes and structures, and toys? Finally, What are some relationships between prehistoric play, those early tools, and the cultural transmission of hunting?

REFERENCES
Begole, Robert S.

Binford, Lewis R.

Binford, Lewis R. and S. Binford

Euler, O. and S. Olson
CARD GAMES ON TRUK
by FRANCIS J. CLUNE
SUNY, Brockport, New York

To carry out an adequate analysis of a game it is necessary to place the game in the socio-political context in addition to discussing the actual rules of the game and the method of play. Even so, a game can be given some analysis and thus place a little information before the eyes of the ethnographer without a detailed analysis of the context of the game. As an example it is of course very important to consider who is playing and what they represent in a high-stakes poker game. But, an analysis of the rules of play would still be possible and most certainly would give a framework for further analysis of the game by other viewers. On this same high-stakes game an ignorance of the rules would leave the viewer incapable of deciding whether the game was well played or was due to "pure" luck.

As far as the Trukese card games are concerned these games are to be seen as only one of many ways in which the Trukese can spend their leisure time. Although the concept of gambling is present in the culture and is focused on other games (bingo), the card games are played for nothing or in some instances for a penalty; for example, an individual is hit on the wrist by the winner.

There are some limitations on card playing that do exist everywhere and are solved in different ways in other areas of the Pacific basin. The first of these is the physical condition of the cards. On Truk the cards were paper or plastic coated cards, the cheaper type of deck. The problem with this type of card is the fact that they become extremely limp in the high humidity, also the plastic coating is either ground off or ineffective since the cards stick together at the slightest touch. The solution to sticky cards is to shuffle in a very different fashion, the cards are cut into two different packs and one pack is held below the other on its side and the cards are pushed into the lower pack, or (usually used) the cards are pulled apart into two different packs with the right hand pack slapped on top of the left hand pack, another group of cards are then taken out of the left hand pack from the top, bottom, or middle which is slapped on top of the remaining cards, two two groups are consolidated and the action repeated as often as is considered necessary. There is a certain amount of prestige in being able
to move the cards very rapidly and slap them together with a loud pop.

All of this activity is of course preparation for the playing of a card game. The next action is to deal the cards and here we run into one of the quirks of Trukese card games - the cards are dealt from right to left going counter-clockwise. The cards are dealt singly according to the game in the appropriate number, for "sweep" four cards, for crazy eight - until they are all dealt and for poker five cards (I believe - this game was never observed - just talked about.)

The play in the game is also reversed, the player to the left of the dealer starts the play. The suits are also ranked in the same order that we rank the suits: clubs, diamonds, hearts, and spades. However, they are not named that, they are named by number: clubs are one, diamonds are two, hearts are three, and spades are four; the numbers are in Trukese, not English.

One game that was quite popular was the game of Casino. The game was called by them "Sweep" this being due to the fact that if you take all the cards from the table in one play this is scored as one point and called a "sweep." The rules are identical to the rules of the game as played by Hoyle, except for the counter-clockwise play and the name. Another game which was played by old and young alike and togethether was the game "Crazy Eight." According to the written rules, when a player plays an eight of any suit, he can name the suit of the cards to follow. The Truks developed a variation on this which may have been learned when the game was originally brought in, or it may be their own variation. It allows after the eight has been played, the following player to place a two on the discard pile, and the next player is required to pick up two cards from the discard pile. This is announced by calling, "take two". The one escape from this is if the second player following the initial play of the eight has a four, he may require the following player to take four cards. This is the end of the requirement to take extra cards from the discard pile. The game continues with the players attempting to follow suit or play eights until the winner runs out of cards before every one else in the game.

Although several people talked of playing poker, I did not see the game played. Given the fact that the Truks are an inventive people I would not be willing to guess what the standard tactics of the game were. One item I could not find out from any of the games played was whether the idea of No Trump existed, this is; however, almost exclusively a concept of the game "bridge" and I saw no such team type games played.

Excerpts from
THE ANTHROPOLOGY OF DANCE RITUAL:
NIGERIAS UBAKALA NGOA DI ICHE ICHE
by
JUDITH LYNNE HANNA
University of Texas, Dallas

Introduction

This study of Ubakala dance-plays seeks to broaden our perspectives of modes of communication. Field work took place among the Ubakala, one of about 200 Igbo groups located in the former Eastern Region of Nigeria (now called Imo State). Data include participant observations; nonparticipant field research notes, interviews probing dance-plays and related subjects, ethnographic studies by other students of Igbo culture, official government documents, and audiovisual documentation (taped music-song recordings, slides, and 16mm motion picture films) of selected dance-plays.

A conceptual framework is presented followed by a contextual ethnographic sketch and an overview of the dance-plays. Six specific dance-plays are then discussed in detailed terms of context and text: catalyst, context, and consequences; participants; costume, accompaniment (songs, instruments, musicians' roles); and dance movement style and structure.

The main thesis is that the dance-plays reflect, influence, and are part of many other aspects of the society and culture to which they belong. Description and analysis are informed by communication theory. Dance-plays are viewed as a "language" of command and control, i.e., a vehicle of power-defined as the ability to influence others' predispositions, feelings, attitudes, beliefs, and actions.

Births, deaths, harvests, moonlit nights, harvests, Christian holidays, visits of dignitaries, crises in social intercourse, and competitions catalyze different dance-plays. The dance-plays are a form of ritual behavior, an extraordinary event involving formally stylized, repetitive behavior, a way of expressing messages not to be communicated in ordinary language or informal behavior. Dance-plays as ritual have both conservative and innovative aspects. A
concept of play links these ritual functions, and with the notion of meditation, helps to explain the expressive and instrumental dynamics of the dance-play.

Conservative Ritual

As conservative ritual, the dance-play maintains cultural patterns, manages tension, and induces solidarity. It converts the obligatory to the desirable through rites of intensification. The dance-play achieves these functions of ordering social relations through messages about the limits and contours of social roles in song texts, participation criteria for the different dance-plays which articulate principles of social organization, and the correlation of movement style and structure to social role. Two ways in which dance-plays help participants cope with tension are "anticipatory psychic management" and "catharsis." Anticipatory psychic management, one method of achieving socialization, prepares an individual for a threatening experience by rehearsing it until its potential destructive emotional impact is reduced to manageable proportions. Through the dance-play girls work through the anxieties in the life of an adult woman, e.g., heterosexual relations, becoming a wife and living among strangers, being fertile, and giving birth. Dance-plays on the occasion of death familiarize participants with ways of coping. Dance-plays provide catharsis, the experiencing a reduction of anxiety or conflict through releasing energy and frustrations, for women's empathic fears about the uncertainties of a successful birth, sanctions for failure, and pain related to marriage and childbirth. Performances on the occasion of dance are outlets for some of the emotional stress that accompanies the loss of a loved one and fear of the deceased's spirit. The dance-play induces solidarity through bringing together individuals and groups required for performances on specific occasions.

Innovative Ritual

As innovative ritual, the dance-play has the potential to encapsulate issues and phases of social drama, to mediate paradoxes of Ubakala world view, and to introduce change. The notion of innovation is part of Ubakala world view which the conservative dance-play performance perpetuates. Change occurs in the dance-play and through the medium of its performance and impact. Fundamental, and sometimes conflicting, Ubakala values catalyze social action. The pursuit of one part of an antinomy to the exclusion of the other creates a dilemma. The dance-play adjusts imbalances and works through the dialectics of social life, especially for the women and youth groups which are excluded from "formal" decision-making bodies. When a world view tenet is expressed such that an individual or group feels threatened and desires to contain, modify, or reverse it, the dance-play mediates between persons and their situations in much the same way as speech mediates between persons and their situations.

The dance-play has the potential to encapsulate the issues and phases of what Victor Turner calls social dramas. The four phases are a breach of the norms of a social group, a mounting crisis, a legal or ritual repressive process, and public and symbolic expression of an irreparable schism or conciliation. In examining the Ubakala world view, one can identify opposing values which catalyze social action. An individualistic competitive achievement orientation is juxtaposed with the need for cooperation and interdependence (community spirit and group solidarity). The desire and expectation of change often run counter to the principle of respect for authority which is largely based on seniority; innovation generally involves criticism or rejection of what elders have established. The principle of respect and obedience to leaders is opposed to the egalitarian dis- taste for assertive authority and the norm of bringing things into the open.

The dance-plays contribute to mediating these three paradoxes and maintaining a delicate balance. A crisis tends to occur when the scales tip. Ubakala allow a special kind of license in the dance-play which protects the individual and group from libel. The dance-play may communicate a breach of norms, foment a crisis, ameliorate a conflict and avoid serious discord, and proclaim the schism or celebrate the reintegration. The freedom permitted in the dance-play allows the introduction of new patterns of behavior. For example, through parody, young girls mime heterosexual physical contact found "abroad" through their version of the waltz dance. This behavior is considered incorrect and immoral according to the Ubakala way of looking at things. Thus individuals have an opportunity for arousal, amusement, a new consciousness, and the possibility of future receptivity to such patterns. For those who may leave the village to live in the urban areas where there is heterosexual physical contact in public, there is a chance to
anticipate and learn to cope.

The 1929 "Women's War" illustrates the potential of the dance-play in social drama and change. Repercussions were widespread both on a local and "international" level. Contemporary politicians frequently refer to this episode; they remember how the women moved the mighty British to alter their colonial administration of eastern Nigeria. First there was a breach of understanding of the norms of intercourse between the women and the colonial government. The women believed that a taxation of men recently introduced by the British government was to be extended to them. The second phase was a mounting crisis as women gathered from near and far to discuss their concerns. The third stage was the potentially repressive process which usually works to contain a conflict. The dance-play served as a vehicle for expressing the women's strong feelings. The irate women sang and danced about the woman who had been told to count her goats, sheep and kin, i.e., the women sang about those whom they thought had caused their grievances. When no amelioration of the cause of dissatisfaction ensued, the social drama was characterized by the fourth phase, schism. The women went on rampages in which 32 women were killed, 31 wounded, and other damage done. The upshot was that colonial government reorganization followed two years later.

Play

The dance-plays are an interaction mechanism Ubakala individuals or groups mobilize to serve multifarious purposes. The dance-plays combine both conservative and innovative ritual elements which merge with one of Richard Schechner's notions about play. He points out that play maintains a "regular, crisis-oriented expenditure of kinetic energy" which can be "switched from play energy into crises or fight energy." Colonial administrators, it should be noted, settled the issue of dance-plays and other similar types of performance from possibly becoming real conflict episodes by banning public assemblies for them in urban areas; their missionary friends helped the suppression in the rural areas.

In performing the dance-play, the serious and nonserious, reality and fantasy, and the visible and invisible situationally intermingle, separate, and merge. This is especially true when dance-play messages do not evoke what performers feel to be a satisfactory response. For the Ubakala, playing is somewhat improvisational, strategic, futuristic, and often crisis-oriented. They take a gaming approach. The dance-play is a rational attempt to gain an optimal outcome in a dynamic situation. However, the course a dance-play takes is uncertain, for it deals with humans in an emotionally charged setting. A dance-play performed to maintain cultural values or to mediate a paradox may indeed stimulate a crisis.

To describe dance-play purposes and functions constitutes only part of an explanation. The dance-plays are not the only patterns that can satisfy the particular conditions portrayed, i.e., there are functional alternatives. The question to be addressed is, what is it about the dance-play form that leads to its occurrence at specific times and places. It is necessary to examine the distinctive form of the medium as well as its content. The secret may lie in the dance-play's cybernetic potential, language-like design features of the dance, devices and spheres for encoding meaning, homology of movement patterns and sociocultural variables, multiple sensory modalities, and the clustering of those variables which have been shown to be persuasive. These bases for dance-play efficacy are discussed.

An epilogue considers the possibilities for generalizing conclusions. It also proposes a sequel to the case study and presents general directions for research toward understanding dance-plays as human thought and action.


* * *

* * *

* * *

* * *

* *
MAKE-BELIEVE PLAY
A MULTIDISCIPLINARY VISION
by SCHLOMO ARIEL
Department of Psychology
Yale University, New Haven, Connecticut, USA

I would like to share with you my vision of a multidisciplinary theoretical model for the descriptive analysis of children's make-believe play. Such a model does not yet exist, although most of its ingredients do, and the main task really is that of piecing them all together. Let me spell out right from the outset the major attributes that might orient the reader around the territory where my vision lies: synchronic, generative, psychodynamic and sociodynamic.

The term synchronic is contrasted not just with diachronic in the sense proposed by deSaussure, but also with ontogenetic and developmental. The term generative is suggestive of Chomsky's generative grammar. The full import of this term is to be made clear below. Psychodynamic implies the requirement that the model describe aspects of the outward, manifest form and content of sequences of make-believe play behavior as the reflection, or projection, of inner "psychic" actual. Analogous to this is sociodynamic - the requirement that the model take into account the effects of sociocultural factors on make-believe play behavior.

What is Make-Believe Play?

Make-believe play is a form of behavior that is either restricted to a single individual child or partly shared by two or more children.

A nominal definition of make-believe play must be purely cognitive. Any verbal or non-verbal behavior whatsoever becomes make-believe play if and only if:

(a) The behavior in question is interpreted by the behaver as a claim that something is the case in the range of immediate experience of the behaver at the very time of behaving.

(b) The behaver knows that this claim is false, and yet he (or she) makes this claim. He (or she) does not make this claim really seriously, however.

This definition may be rephrased by a kind of logical formula, as follows:

Let C stand for a child.
Let B stand for any verbal or non-verbal behavior.
Let T be the actual time of behaving.
B is make-believe play if

(i) C interprets B as a statement that something is the case at T in the immediate range of experience of C.

(ii) It is not the case that B at T, and C knows it.

and

(iii) C takes the mental attitude that B at T, but C does not take this attitude really seriously.

Imagine, for instance, a little boy standing in the middle of a yard and shouting: 'A lion is fighting with a crocodile!' This verbal behavior should be considered as make-believe play if and only if

(i) the little boy interprets his own behavior as a kind of statement that a lion is fighting with a crocodile in his own immediate range of experience, at the very time that he, the little boy, has been uttering this sentence. (Suppose that the little boy interpreted his own behavior not as such a statement, but, say, as a description of a picture in a picture-book. Then his behavior could not be properly viewed as make-believe play).

(ii) It is not the case that a lion is really fighting with a crocodile (at least not within the range of immediate experience of this boy) at the time of utterance. The little boy knows this not to be the case (well, at least one hopes he does!).

(iii) The little boy takes the mental attitude that it is the case that a lion is fighting with a crocodile in his own immediate range of experience at the time of utterance. However, he does not take this attitude really seriously. (Suppose the little boy did not adopt this mental attitude. Then his behavior could be properly regarded as a lie, a joke, an attempt at deception, etc., but not as make-believe play. Suppose now he did assume this mental attitude, but in dead seriousness. This would be no play!).

All this applies to non-verbal behavior as well. Take, for instance, a little girl who plays as if she were asleep. This non-verbal behavior should be regarded as make-believe play just in case all the conditions listed above are fulfilled. It is make-believe play if she interprets her own behavior as a kind of statement (equivalent to 'I am asleep now!'), and adopts the not-very-serious mental attitude that this statement is true at the behaving-time, although she is really aware of the fact that it is not true.

This attempt to define make-believe play provides a first glimpse into the conceptual complexity with which this form of behavior
meets the investigator.

A formal analysis of what may be called "the logic of make-believe play" is no trivial task. The analytic tools for such an analysis seem to lie in the direction of modal logic and the logic of propositional attitudes.

The Goals of a Theory of Make-Believe Play

I would like now to elaborate on the notion 'a generative synchronic model of make-believe play'. To simplify matters, the following discussion will be restricted to the make-believe play of a single child of a specific age (say, a four year old boy, called Peter). Suppose Peter were closely observed for a whole month. (Although little boys and girls develop and change at an amazing rate, a period of one month may be viewed, for our purposes, as a single point of time). The observation protocols would include quite a number of instances of behavior that must be qualified as make-believe play. A sample of sequences of make-believe play behavior will be available, then. This sample will have its own distinctive characteristics (Peter's peculiar "style of play"). Now, what would be the sample-space from which this sample would be drawn? If our model is to be more than just a catalogue of a limited body of data, and have some predictive and explanatory power, such a sample space should be of an unlimited size. For the sake of scientific explanation it would be legitimate to postulate the existence of a purely hypothetical sample space, an infinite set of sequences of make-believe play behavior, of which the observed sample of Peter's make-believe play would be one possible subset. To put it differently, it would be legitimate to engage in a sort of scientific make-believe, in which our Peter would go on being a four year old boy, who is engaged in make-believe play of essentially the same characteristic "style", ad infinitum.

The actual observed sample of the make-believe play of our real Peter could then be considered as one proper subset of the make-believe play of our imaginary Peter.

Now we are ready to consider the goals of a generative synchronic model of make-believe play. It could be desirable for such a model to have the capacity to simulate Peter's make-believe play, that is to say, to generate sequences of make-believe play behavior that could be Peter's and to exclude sequences of make-believe play (or, for that matter, anything else) that could not be Peter's.

It should be emphasized, that the model would not necessarily be required to replicate the actual obtained sample of Peter's make-believe play. The only requirement is that it have, in principle, the capacity to generate any subset of the hypothetical infinite sample space discussed above. The validity of the model could be judged, among other ways, by the goodness of fit between generated simulations of Peter's make-believe play and actual samples of Peter's "real" make-believe play. One way to measure such goodness of fit would be the application of various tests of statistical association between relevant tests of statistical association between relevant variables in simulated "samples" and the corresponding variables in actual samples. Which variables would be relevant? This question is going to be taken up presently.

The Structure of the Model

Consider the following questions:

Q1: What are the distinctive properties of Peter's make-believe play?

Q2: Why does the make-believe play of Peter have these distinctive properties rather than any other conceivable distinctive properties?

Q3: What are the distinctive properties of make-believe play (that is, the make-believe play of any child)?

Q4: Why does make-believe play have these distinctive properties rather than any other conceivable properties?

It should be stated, that the nominal definition of make-believe play proposed above does not constitute an answer to Q3. The latter question does not call for the explication of the meaning of a concept, but for the full characterization of the range of empirical entities subsumed under the concept (its reference, extension).

All these four questions presuppose the existence of rules that govern make-believe play behavior. Wherever behavior is not entirely free from constraints, wherever it is restricted in ways that paint it with its own peculiar colors, it may be said to be governed by unwritten rules. Q1 and Q2 suggest the existence of rules whose range of application is restricted to the make-believe play of an individual child. Q3 and Q4 refer to universal rules, whose range of application covers the make-believe play of any conceivable child. Between these two extremes one should expect to find rules whose range of application covers properties of make-believe play that are shared by, or common to,
groups of children of various sizes and descriptions. The rules will fall into the following categories:

(i) mediotic rules
(ii) surface semantic rules
(iii) deep semantic rules
(iv) translation rules
(v) pragmatic rules

The similarity to the levels of analysis of descriptive linguistics is not coincidental. Following the analogy of phonetic rules, I coined the term mediotic rules to denote rules that describe restrictions on the choice and sequencing of media-features (medions, as they are called below). Everything in the immediate play-environment, including people, objects, areas and spaces, the player's own body and its movements, the player's own voice and speech, and so forth, can become a medium of make-believe play - a raw material for a make-believe play expression. However, not all the features of a medium are actively used as expressive means. For example, if a child straddles a large tube, playing as if the tube was a horse, only the outer and upper curved surface of the tube is utilized as an expressive device.

A minimal feature of a medium that is actively used as an expressive marker in make-believe play will be called a medion. The outer upper curved surface of the tube in the above example is a medion.

The systematic and parsimonious formulation of mediotic rules requires a thorough analysis, and a notation for the transcription of non-verbal behavior. Some beginnings in this direction have already been made. Among these Birdwhistell's kinesics and Hall's proxemics seem to be particularly promising. Another achievement, whose far-reaching potentialities seem to have not been fully realized yet by the scientific community is Eshkol-Wachman's Movement Notation.

Surface semantic rules would state restrictions on the interpretation of medions, classes of medions and sequences of medions, in terms of their manifest contents.

Corresponding to medion the term semion—a minimal unit of content—was coined. Thus, the medion 'outer upper curved surface of a large tube' represents the surface semion "horse". Surface semantic rules describe restrictions on the choice and sequencing of surface semions or classes of surface semions, and on the mapping of surface semions to medions.

Deep semantic rules pertain to the latent contents of medions, classes of medions and sequences of semions. It has been pointed out by many students of make-believe play, and other forms of symbolic expression (such as dreams, daydreams, soliloquy, spontaneous drawing, etc.), that manifest expressions often conceal behind them latent, or secondary, predominantly unconscious, meanings. A horse-ride in the manifest play might be a well-concealed representation of the sexual act in the latent play. Underlying a surface flower could lie "my little sister". Deep semantic rules pertain to restrictions on the choice and occurrence of deep semions.

Attempts to give semantic rules their proper shape could profit from existing methods of structural semantics, such as the theory of semantic fields and componential analysis. The mapping of deep semions onto the text and conversation analysis and content analysis.

Translation rules would state restrictions on the mapping of deep semions and semion-sequences to surface semions and semion-sequences. The assumption behind such rules is that there are regularities in the relations between deep contents and manifest contents. Children in the latent component will be regularly represented by flowers or animals in the manifest component, independence of long-distance trips, and so forth. (These examples are fictitious - their sole purpose here is to illustrate the point).

Possible contributions to the formulation of translation rules could perhaps come from studies of the structure of associations and from certain approaches to linguistic metaphors.

Pragmatic rules represent the selective effects of contextual and situational factors on the selection and cooccurrence of medions or semions.

An interesting subset of pragmatic rules are rules that relate the choice or sequencing of medions or semions to various aspects of social interaction among the children. Some groups of children, for instance, have adopted a convention, according to which interpersonal conflicts may be solved by creating a make-believe satisfaction of one or both of the conflicting wishes. A boy who played "daddy" with two girls, who were "mommy" and "baby", wanted to leave and join a group of boys that played "fire-brigade". When his two male playmates raised a hell about his defection, he offered a settlement, 'Let's pretend daddy worked in the fire-brigade'.

The studying of pragmatic rules could draw on methods that have been developed for the investigation of the structure of inter-
personal communication. Another direction from which help might be expected is logical-pragmatical studies of speech acts and conversation\textsuperscript{15}.

The Roles of Personality and Culture

The foregoing discussion pertains to Q1 and Q3 (cf. p. 16 above), the what-questions. Let us now turn to Q2 and Q4, the why-questions. Why; is a call for explanation. What are the underlying motivations behind the rules of make-believe play? In attempting to answer this question, one must ultimately reach the constructs of culture and personality. These two concepts are notoriously vague and slippery, and each of them has been known to have hundred different faces, but one cannot seem to be able to do without them. Culture comes into the picture of make-believe play through every possible avenue. First and foremost, it determines whether children will have this form of behavior in their behavioral repertoire at all. Make-believe play is, apparently, not a universal phenomenon. There are societies whose children do not play make-believe at all, or play very little, and on a rather rudimentary level\textsuperscript{16}.

Culture determines, to a considerable extent, the restrictions on contents, structures and manifest behaviors that are described by semantic and medetic rules and by translation rules. Such restrictions depend on the kinds and amounts of information available to the children, on the network of conceptual and perceptual relations and associations that constitutes their cognition, on their characteristic modes of response, and on their language. All these are shaped and preserved by culture. For instance, the convention allowing the creation of make-believe solutions to conflicts is found just in groups of children that have evolved from themselves a kind of "mini-legal system" for conducting their own social transactions on a relatively sophisticated level. Apparently, such "mini-legal systems" grow only in specific kinds of socio-cultural groups\textsuperscript{17}.

The structure of personality (where this term stands both for features that are assumed to be common to all human beings and for traits that distinguish particular types of individuals) is another determinant of the various restrictions described by medetic, semantic, translational and pragmatic rules. Since childhood is considered the formative period of the personality, and the child's personality if supposed to go through drastic structural changes in the course of development, one should expect the rules of make-believe play to be, in some respects, radically different in different ages or developmental stages of the child.

The role of make-believe play as a mirror of the child's personality and its developmental stages has been emphasized by many of the students of this field. Recurring ideas are that manifest contents in play are manifestations of basic components of the personality and dramatizations of conflicts among them\textsuperscript{18}, fantasy satisfactions of drives that cannot be satisfied in reality, or make-believe rearrangements and disentanglements of internalized complexes and deadlocks\textsuperscript{19}.

The Model As An Information Processing Device

One way of looking at the model would be to regard it as a kind of information-processing device. Questions that would be relevant to this approach would pertain to the nature of the input, the structure and modes of functioning of the processing mechanism, and the character of the output.

It should be pointed out right from the outset, that the complete construction of such a device is at the present time nothing but a purely theoretical possibility. Such device would have to be so extremely complex and powerful that its completion could not possibly be accomplished in the foreseeable future. One should be naively optimistic to expect that a fully implicit simulation of make-believe play (of, for that matter, of any other stream in the natural flow of human behavior) could be a practicable prospect for the near future. However, this realization should not preclude one from imagining what such a device might look like in general outline. The rewards one might draw from such an endeavor might prove important in themselves. Scientific progress has often been enhanced by idealized models that scholars have adapted as goals towards which they should direct their efforts.

Although such an idealized model may never be fully and completely materialized, it could always be possible to fully specify some important subparts of it, and one can learn quite a lot from fully developing various simplified, judiciously impoverished versions of it.

It was suggested above (p. 15) that any verbal or non-verbal behavior whatsoever becomes make-believe play if certain conditions are fulfilled. It follows that a simulation of make-believe play would in fact amount to a simulation of human behavior,
with certain constraints superimposed. Such a device should mimic environment input, perception, short and long term memory, retrieval and feedback processes, sensory-motor coordination, etc., etc. All these lie at the basis of human behavior in general. In addition, such a simulation should be supplied with a representation of the distinctive characteristics of make-believe play (which, as claimed earlier, are purely cognitive). To put it in a jargonic style, the device might include a kind of "meta-output control component", a kind of interpretative instrument, which would distinguish, in principle, between output that qualifies as make-believe play and output that does not. The function of this component will be to search appropriate regions of the internal environment of the information-processing device for meta-output modalities that would occur immediately prior to, or simultaneously with, the production of each output segment, and could serve as indicators with regard to the question whether the output-segment in hand should be qualified as make-believe play or not.

Although such meta-output modalities can be readily grasped on an intuitive level (they would be equivalent to concepts such as a statement, the present time, the immediate experience, know, not seriously, etc. (cf. p. 15 above)), it would presumably be extremely difficult to define them in an objective and fully explicit manner, so that they could be built into the information-processing device and be perceived by the "meta-output control component" in a purely mechanical manner.

In order to be a valid simulation of real make-believe play (e.g., the make-believe play of Peter), the information-processing device should also contain a built-in representation of the system of rules of make-believe play (the mediatic, surface-semantic and deep-semantic rules, translation rules and pragmatic rules) that have been discussed above. The rules would serve as intermediaries between external input and long term memory on the one hand, and external output (symbolic representations of sequences of verbal and non-verbal behavior) on the other hand. These rules will disqualify those portions of the output that will have been marked by the meta-output control component make-believe play, but that could not possibly belong to Peter's make-believe play.

The Evaluation of the Model

I shall not dwell here on the problem of possible techniques or procedures which the investigator could use in order to be led to correct interpretations of make-believe play sequences, or in order to be properly guided in his discovery and formulation of rules. These extremely intricate methodological issues require their own separate, extensive discussion. What I shall discuss here is criteria for evaluating the adequacy of the model once it has been fully constructed. Among such criteria will be validity, exclusiveness, completeness and explanatory power. These are familiar concepts; the question is what exact interpretations could be assigned to them in the context of this discussion.

The validity of the model will be judged by the degree of its agreement with the "real" entities of which it purports to be a model. Basically what should be done to establish validity is test the hypothesis of no agreement between the model and the "real" entities modeled. If the model is not valid, the probability should be very low for sequences of hypothetical "samples of make-believe play" generated by the model to fit actual obtained samples of "real" make-believe play well. Suppose, for instance, that obtained samples of "real" make-believe play and hypothetical samples of model-generated "make-believe play" were inspected with view to the question whether the ordinal gradings of relative frequencies of occurrence of certain categories of semions were monotonically related across these two kinds of samples. If a monotonic relation of this kind would be found to be rare, this would indicate that the validity of the model is in a certain respect low. This way of putting things presupposes the view that the rules of make-believe play as well as units such as mediions or semions (surface or deep) and sequences of such units are "psychologically real". It should then be in principle possible, though in practice certainly very difficult, to observe, elicit or experimentally manipulate behavioral clues that could serve as reliable empirical evidence confirming or disconfirming hypotheses about the child's own intuitions with respect to the question what units or sequences of units are compatible with the rules of make-believe play as these have been internalized and are represented in his or her mind, and which are not. It follows that the validity of the model can, in principle, be measured. There would certainly be many stumbling blocks on the way of achieving this, but these, I believe, would not be insurmountable.
The criteria of exclusiveness and completeness require of the model to be constrained in such a way that all and only those units and sequences of units on all levels (medietic, surface semantics, deep semantic, etc.) would be generated, that could potentially be produced by real children, and would be compatible with the rules the children in question have internalized.

The exclusiveness of the model could, in principle, be tested as follows: A relatively large number of simulated "samples" of "make-believe play" would be generated by the model. If the model is exclusive, one would expect these simulated "samples" to include no or very few elements that are either unlikely to occur in real samples of make-believe play, or that are likely to be marked by various behavorial manifestations of the player's intuitions as incompatible with the rules.

The completeness of the model could be tested by the opposite procedure: A relatively large number of samples of real make-believe play would be obtained by observations. If the model is complete, these samples would include no or very few elements that the model could not have the capacity to generate.

The explanatory power of the model will be evaluated by the size of that portion in it that can be derived from or accounted for by immutable universal laws (laws of logic, or empirical laws of physiology, personality development, ethnology, etc., insofar as the universality of such laws can be established).

It will be noticed, that if the validity, the exclusiveness, the completeness and the explanatory power of the model are established, its adequacy by other criteria, such as replicability, falsifiability and predictive power, is more or less guaranteed.

Epilogue

Being merely a vision, what has been presented above has in it much that is dark and hazy. Yet I can see it very clearly, and hope that gist of it has been imparted to you.

Footnotes

6. I was unable to obtain the references. The interested reader is advised to write to Professor Noa Eshkol, Tel Aviv University, Israel.
12. This assumption has been adopted by many students of children's make-believe play, cf. for instance El'konin 1971, Klein 1950, pp. 147n, 148n, 161, 163, 215, Murphy 1960, Piaget 1962, pp. 169-212.

References

Ariel, Shlomo and Irene Sever. 1978a. Play in the Desert. The Play Activities of Bedouin Children in the Sinai Peninsula. Study Center of Children Activities, School of Education of the Kibbutz Movement: Israel.
Ariel, Shlomo and Irene Sever. 1978b. Socio-Semantic Rules in the Language of Children's Play. Study Center of Children's Activities, School of Education of the Kibbutz Movement: Israel.
Ariel, Shlomo, Irene Sever and Matia Kam. 1978. What Makes the Play-Activities of Children Colorful and Dynamic? Study Center of Children's Activities, School of Education of the Kibbutz Movement: Israel.


Wolff, Adolf G. 1960. Spontaneous puppetry by children as a projective method. in
The Hague: Mouton.

**BIBLIOGRAPHY**

**ON AUDIO-VISUAL MATERIALS**

**ON CHILDREN'S PLAY**

by MERRIL SCHINDLER

---

**Adult Play Therapy.** 16 mm. film. 40 min. color.

Features Dr. Harold Greenwalk, who describes and then demonstrates a therapy technique which he calls "play therapy for children over 21". Shows how Dr. Greenwalk adopts a role designed to frustrate each patient's pathological behavior and maintains this position until the patient is intensely aware of the feelings which motivate the behavior. From the "Contemporary Psychotherapists in Action Series." Produced by Bell and Howell.

**Adventure Playground, London.** 16 mm. film. 7 min. color.

Depicts Holland Park in London, one of the finest play parks operated by the city. Shows children from five to 15 years exploring the challenges of flying foxes, tree platforms, ladders, high rope riggings, swing tires and ropes and billy-cart courses in a forest-like setting. Available from New York University Film Library.

**Afternoons and Alice McClure (A Child's Fantasy).** 16 mm. film. 28 min. color. 1973.

Presents a ten-year-old child who is left primarily to her own devices because her mother works and her father, a military officer, is away. Shows how Alice writes in her diary about the large, deserted house which she transforms into a place of beauty in her fantasies and attempts to do the same with one room in reality. Produced by Phenix Films.

---

**And So They Grow.** 16 mm. film. 28 min. B & W. 1955.

Study of group of nine-year olds in a play program, photographed over a one-year period. Essential role of leadership and how children learn and grow through play are portrayed. Available from the Psychological Cinema Register at Pennsylvania State University, College Park at $9.00.

**Arabian Children.** 16 mm. film.
The life of a farm family in the village of Saahab, Jordan, is pictured with special attention to the children's activities. Their home and school, the way in which they help with the daily work, their problems, pastimes, and family life are shown in the course of a typical day. Available from the University of Missouri at Columbia, Mo.

**Arrow Game.** 16 mm. 7 min. Color. 1975.
A large group of Yanomamo boys engage in an arrow fight in the village clearing, shooting blunt arrows at each other to learn dodging, aiming and shooting. Available from the PCR at Pennsylvania State University, College Park at $5.50.

**Balloons: Aggression and Destruction Games.** 16 mm. film. 17 min. B & W. 1941.

Two children between the ages of four and five from similar backgrounds are photographed through a one-way screen while reacting to test situations. Differences are shown in the response to a graduated series of opportunities and invitations to break balloons. After an introduction describing the procedure and its purposes, Marvin's rigid morality and strong resistance to his own destruction impulses are seen and heard in contrast with Terry's easygoing, happy-go-lucky approach with a causal acceptance of destruction. Available from N.Y.U. Film Library.

**Block Play.** 16 mm. film. 16 min. Color.

An unrehearsed film that captures children using blocks to gain mastery over their ideas while giving imaginative play a quality of reality. Children ranging in age from five to eleven years of age are seen demonstrating how different stages of block building parallels different stages of growth. Available from Michigan State University, Ann Arbor at $6.75.

**Blocks-A Material for Creative Play.** 16 mm. film. 16 min. B & W.

Shows children at play, creatively using blocks of all sizes and varieties in different group and individual situations that are dictated by the children's imagination. Available from the University of Iowa Film
Library, Iowa City at $5.92.

Blocks: A Medium for Perceptual Learnings.
16 mm. film. 16 min. Color.
The film focuses on the perceptual learn-
ings that are inherent in block building and
are derived from how the child perceives the
blocks with which he works and the space in
which he builds. The film further details
perceptual learnings in relation to future
academic learnings. Available from Michigan
State University, Ann Arbor at $7.50.

Boy's Game. 16 mm. film. 5 min. Color. 1968.
Boys from Pushtu tribe of Badakhshan in
Northeastern Afghanistan are shown playing
native games. Only natural sounds are heard.
Available from the FPR at Pennsylvania
State University, College Park at $8.00.

Boy's Journey through a Day. 16 mm. film.
A young boy is followed through a day's
exploration as he hikes, fishes, investi-
gates young animals, and daydreams by a
creek. Focuses attention on the natural
beauty of the surroundings and the wonder-
ment of the boy's adventures. Available from
the University of Indiana AV Center, Bloom-
ington at $7.50.

Cans - A Learning Toy. ½ inch videocassette.
In this film a practical demonstration of
using a household object in the education
of the young child is presented. Ordinary
cans become educational toys as children
discover different ways to play with one
kind of object. Unrehearsed scenes show chil-
dren in the natural process of spontaneous
discovery. Available from High/Scope Educa-
tional Research Foundation in Ypsilanti,
Mich. at $30.00.

Child at Play. 16 mm. film. 19 min. B & W.
1952.
A concealed camera shows three-year-old
Judy as she plays alone, with a group of
strange children, and with a four-year-old
friend. Reveals some of the social experi-
cences of children and concludes with questions
about the significance of children's
behavior. Available from the University of
Illinois, Urbana-Champaign at $4.40.

Child Creates. 16 mm film. 7 min. Color. 1971.
In the film two kindergartners, Tina and
Jayle, are seen touching and feeding many
different animals at a children's zoo and
then creating their impression the next day
at school with paints, felt pens and crayons.
Available from Soundings, in Concord, Cal.
at $85.00.

Child Playing. 21 inch videotape. 45 min.
Color.
Part of the series "The Child's View of
the World." Available from Channel CHI TV.
A Child Went Forth. 16 mm. film. 18 min.
B & W. 1942.
Shows the possibilities for personal
child development in the group life of a
summer camp for the three to seven-year-old.
Special stress is given to the play and
work of the younger child. Available from
Britannica Films.

Child's Point of View - A Series. 16 mm.
This film deals with the importance of
understanding the child's point of view.
Episodes demonstrate how a child sees all
things as purposeful, how his fantasies
are real to a child and how refusal to let
a child play act and fantasize can affect
him adversely. Available from Parent's
Magazine Films at $150.00. (sale only).

The Child's World - Today and Tomorrow.
Audio Tape. 62 min.
August Heckscher, director of the Twen-
tieth Century Fund and art commissioner for
the city of New York, discusses the child's
world of art. Available from the University
of California, Berkeley.

Childhood - The Creative Years. Records.
Presents various poems, prose and music
written, read and performed by children.
Available from CMS.

Childhood's Noon. 16 mm. film. 15 min. 1963.
Deals with the preparation of children
for adulthood through the games they play
and the fairy tales adults tell them.
Available from the University of Pennsylvania,
College Park.

Children Around the World - A Series. 16 mm.
film. 1968.
Presents a visit with children of differ-
ent lands where through their words and life
we learn of their country, their home, work,
study, and play. Available from QED.

Children at Work and Play Around The World.
16 mm. film. 17 min. B & W. 1957.
Discusses the play pattern for each age
group within a family of four children whose
ages are two, five, eight, and eleven.
Classifies play into six categories - free
spontaneous play, constructive play, make-
believe play, collections, amusements, games
and sports. (No source listed.)
Children in Autumn. 16 mm. film. 11 min.  
Color. 1958.  
Two children work on a collection of signs of autumn. See things which influence life around them. Available from Encyclopedia Britannica.

Children in Spring. 16 mm. film. 11 min.  
Color. 1958.  
Two children observe the signs of spring through a series of personal experiences, a picnic and gardening. Available from Encyclopedia Britannica.

Children in Summer. 16 mm. film. 11 min.  
Color. 1957.  
Two children enjoy summer experiences month by month. They visit a farm and work in their garden. Available from the Encyclopedia Britannica.

Children in the City. 16 mm. film. 8 min.  
Presents a look at the unique experience of growing up in a large city, illuminated by children's comments and set against the backdrop of New York City. Available from the Encyclopedia Britannica.

Children in Winter. 16 mm. film. 10 min.  
Color. 1958.  
Two children and their dog observe the winter season. They play in the snow, investigate in their backyard and around the house. Available from Encyclopedia Britannica.

Children Who Draw. 16 mm. film. 38 min.  
Color. 1956.  
First grade children in a Tokyo school are observed through a telescopic lens and other special camera techniques over a period of nine months. Shows how they translate their developing needs and emotions into line and color on drawing paper and in other means of expression. Available from the University of Michigan, Ann Arbor.

Children's Play. 16 mm. film. 27 min. B & W. 1955.  
Points up the changing form of children's recreation, portraying play at each age level. Available from McGraw Hill, N. Y.

Illustrates how different games played in the classroom can develop alertness and agility, visual acuity and balance and coordination.

Cockabody. 16 mm film. 9 min. Color. 1974.  
Young children are seen at play, talking together, "dressing up", and "pretend", and it is observed how, through play, children learn about their environment, language and the roles they will have as adults. Available from Parents' Magazine Films at $150.00. (sale only).

This film presents the value of dramatic play in aiding the young child's intellectual, social and emotional development. Play permits the young child to develop relationships with other children and to express his feelings about himself. Available from Parents' Magazine Films at $235.00. (sale only).

Drawings by Children. 16 mm. film. 11 min.  
B & W.  
Presents the artistic work of six and seven year old children, their materials, techniques and involvement in their creations. Available from CMC.

Early Play. 16 mm. film.  
Film reveals that the self-directed activities during play indicate the child's level of development. Available from the Connecticut State Dept. of Health.

Finger Painting. 16 mm. film. 22 min. Color. 1941.  
Shows behavior of nine nursery school children presented with finger paints as a medium of expression. Gives close-ups of a variety of children's paintings and the painting process. Available from New York University Film Library.

First Friends. 16 mm. film. 22 min. Color. 1974.  
This film shows how a child becomes part of a group. Set in a preschool, youngsters play together, reveal a wide range of feelings, attitudes and behavior. Available from Parents' Magazine Films at $285.00. (sale only).

Frustration Play Techniques. 16 mm. film. 35 min. B & W. 1942.  
This film demonstrates different reactions of children in play-test situations which involve conflict and frustration. Available from Northern Illinois University Film Library, DeKalb at $5.00.

Game of Staves. 16 mm. film. 10 min. Color. 1962.  
Pomo boys play a variation of a dice game using six staves and twelve counters; the game was played by both men and women in most Indian tribes in North America. Available
from the PCR at Pennsylvania State University, College Park at $8.50.

**Act's His Age.** 16 mm. film. 14 min. B & W. 1951.

Typical behavior of children from ages one to fifteen is illustrated through play activities at a large picnic. Changes in children's activities and emotions are shown as they grow. Available from McGraw Hill, N.Y.

**Lion Game.** 16 mm. film. 4 min. Color. 1966.

A young I Kung bushman, /Gunda, plays a lion game and is 'hunted' and 'killed' by a group of boys. Available from PCR at Pennsylvania State University, College Park at $6.00.


Shows the activities and learning behavior of nursery school children throughout the day and various seasons of the year. Available from New York University Film Library.


Presents children ages four and five at work and play in nursery school. Available from New York University Film Library.

**Long Time to Grow, Part III, Six-, Seven-, Eight-Year-Olds - Society of Children.** 16 mm film. 30 min. B & W. 1957.

Shows the entrance of children into the world of tradition magic and customs handed down from one generation to the next and resistant to change. Available from New York University Film Library.

**My Art is Me.** 16 mm. film. 21 min. Color. 1974.

In this film a racially and socioeconomically integrated group of four and five-year-olds participates in a variety of preschool activities. Available from University of California, Berkeley.

**My Own Yard to Play In.** 16 mm. film. 6 min. B & W.

Documents children playing in a large city through a series of unconnected kaleidoscopic shots and a sound track of children talking. Available from Syracuse University Film Library.

**Organizing Free Play.** 16 mm. film. 22 min.

Shows that free play in nursery school is neither helter-skelter chaos nor regimented uniformity, but a crucially important segment of the day when children may choose among a variety of carefully planned activities. Available from the Behavioral Sciences Media Laboratory at the University of Oklahoma, Norman.


Explains that outdoor play presents the opportunity for limitless learning when there is interaction of children with materials and with each other and points out how these factors relate to learning.


A record of eight singing games played by fourth grade Afro-American girls on the playground of a school. The work is based on the essential structure and characteristics handed down from one generation of school children to another. Available from the University of California, Berkeley at $9.00.

**Play and Personality.** 16 mm. film. 45 min. B & W. 1964.

An actual record of a group of preschool children whose mothers have severe neuroses. Shows how a child tries to master his fears and feelings through play and how important it is for an adult to be in close touch. Available from New York University Film Library.

**Play in the Snow.** 16 mm. film. 10 min. B & W.

Shows the activities of three children and their friends building a snowman and playing games in the snow. Available from Encyclopedia Britannica.

**Play, the Business of Children.** 16 mm. film. 10 min.

A student teacher views the activities of three and four year olds in nursery school and explains the meaning of play to the development of children. Available from the University of Missouri, Columbia at $2.00.

**Play's the Thing.** 2 inch videotape. 20 min. Color.

Shows objects that were created to express joy or were designed for fantasy or exploration. Considers the effect of toys upon the user and emotional responses to toys. Available from National Instructional Television.

**Playground Chants and Games.** 16 mm. film. Color.

Develops the folklore of young Americans as manifested in playground chants and games. Produced by Wilets.
Playing Together. 16 mm. film. 30 min. B & W.
Children three and four years old are shown playing in different situations at a nursery school. Available from Time-Life Films at $30.00.

Playing Where You Are. 2 inch videotape. 15 min. Color.
Shows children playing during the winter at different locations in the United States and Canada. Correlates children’s play to the places in which they live. Available from National Instructional Television.

Playing With Scorpions. 16 mm. film. 4 min. Color. 1966.
I Kung bushmen children tempt fate by playing with scorpions which cannot sting without striking. Available from the PCR at Pennsylvania State University, College Park.

Playtime in India. 16 mm. film. 10 min. Color.
Features traditional games and fun of Indian children and contrasts their idea of fun with that of the American children. Produced by Levo.

Preschool Child. 16 mm. film. 30 min. B & W.
This film shows a four year old beginning to draw and paint and make things. He plays cooperatively with other children, depends on perceptual judgements and is easily confused about number and language quantity. Available from Time-Life Films at $30.00.

Purple Turtle. 16 mm. film. 14 min. Color. 1962.
Hidden camera and microphone record the activities of kindergarten children as they busy themselves with paints, crayons and clay. Available from ACI films.

Sex Differences in Children's Play. 16 mm. 27 min. B & W. 1973.
Preschool and primary school children show sex differences in play behavior. Shows size of play groups, rank, style of play, and precourtship behavior during group sessions on the playground. Available at the PCR at Pennsylvania State University, College Park at $10.00.

This film considers tiny toddlers at play. It shows two 2½ year old youngsters at play indoors on a winter’s afternoon, without adult surveillance or interference. Available from Parents' Magazine Films at $75.00 (sale only).

Understanding Children's Drawings. 16 mm. film. 11 min. 1949.
Following a normal child's progress from scribbling to the composition of narrative pictures, this film shows how 3 to 7 year old children develop their artistic expression in an unself-conscious way. Available from the University of Missouri, Columbia at $3.50.

Understanding Children's Play. 16 mm. film. 10 min. 1948.
Constitutes an introductory survey of play devices as applied with children of beginning school age. Shows the importance of play techniques in personality evaluation and adjustment. Available from New York University Film Library.

A dramatization of the warlike spirit which is evoked in the games and quarrels of children. Available from CCM Films.

Shows boys playing with water and such materials as funnels basters and siphons. Available from EdS.

We're Gonna Have Recess. 16 mm. film. 9 min. Color. 1974.
This film presents a view of the schoolyard during recess when, within a space of fifteen minutes, hearts are broken, scores are settled and problems are resolved. This portrait of children at play without adult intervention is a collage of the various personalities. Available from Parents' Magazine Films at $130.00 (sale only).

Presents an interpretation of play as child's work, documented through activities of a preschool group. Available from Harmon Inc.

World of Three. 16 mm. film. 26 min. B & W. 1967.
Records the daily activities of a three year old as he tries to relate to and interact with his surroundings. Includes situations demonstrative of his play patterns, awareness of sounds, reaction to a new baby, mischievous adventures, and need for love and security. Available from McGraw Hill Films, N. Y.

Your Children's Play. 16 mm. film. 20 min. B & W. 1952.
Discusses the role of play as a learning experience in the development of children under five emphasizing the importance of the adult's attitude. Shows children playing out what they are learning about their environment. Produced by BMOH.