
Play, Toys, Learning, and Understanding

An Interview with Doris Bergen

Doris Bergen, Distinguished Professor of Educational Psychology Emerita and University Distinguished Scholar at Miami University in Ohio, presently chairs the school's Educational Leadership Interdisciplinary Doctoral Program. She also served as Educational Psychology Department Chair for eleven years. A former Dean of Graduate Studies and Research at Pittsburg State University, Bergen held the same position at Wheelock College in Boston. Early in her career, Bergen learned the value of play when she directed prekindergarten programs and taught in the elementary grades at various schools in Michigan. In 2000 the National Association of Early Childhood Teacher Educators named her an Outstanding Early Childhood Teacher Educator. The author of ten books—including the 2016 *Technology Play and Brain Development: Infancy to Adolescence and Future Implications*—more than forty refereed articles, and thirty book chapters, her research interests have included play and humor in early and middle childhood, the effects of technology-enhanced toys, the social interactions of children with special needs, humor development in gifted children, and cross-cultural considerations in play. In this interview, Bergen describes herself as a lifelong promoter of play, talks about her formative play experiences, reflects on changes in children's play, and notes the current urgent need for richer play experiences—especially in pretend play—to enhance the development of social knowledge, empathy, and emotional resilience. **Key words:** benefits of pretend play; educators and game development; play across cultures; play research; technology-augmented toys

American Journal of Play: How did you play when you were a child?

Doris Bergen: I moved a number of times when I was a child and lived in city, country, and small-town environments, and my play differed in each of those environments. When I lived in the city, our houses were close together, so I played games like “wall ball” where you bounced a ball off the wall and tried to catch it. I also played marble games and sidewalk games

like hopscotch and jump rope. Because I was an only child until I was seven, my dolls were my favorite playmates. When we moved to a house in the country, my playmates included chickens, a dog, and our only close neighbor girl, with whom I shared paper doll play. Outdoors, we played at swinging and tag. After my family moved to a small town, and as I got older, my play world enlarged: I dug forts in vacant lots with neighbor children and rode my bike all over our town. When my brother was then old enough to play with me, we built elaborate towns with blocks, drove cars around in those towns, and created stories for our own “small world.” My family also played many board games together in the evenings, as this was before television and other virtual entertainment took over.

AJP: Do you retain strong memories of childhood play?

Bergen: In my investigations of other adults’ memories of their play, it seems they mostly remember play at age seven or eight. However, my memories of play are vivid at every age, and it may be that as the settings of play changed and my play changed also, each setting made me remember the type of play more easily. One of the very joyful memories for me was when I learned to ride a neighbor girl’s bike before my parents thought I was old enough to ride and then when my dad did buy me a bike, I surprised him by being able to ride it! Another prominent memory from the small-world play that I did with my brother involved our building a drive-in-movie theater, complete with cars, movie screen photos, and all the other aspects. I realize this type of play dates me! I also really enjoyed those many evenings of family game play that helped me become “a good sport.” I am sorry that this type of play occurs less often in families these days.

AJP: Looking back, do you feel that the ways you played as a child influenced your adult life?

Bergen: Well, they must have because when I decided on a career, I first taught in early-childhood education, which at that time was focused on using play as a medium for learning. Later, when I started my higher education career, much of my research focused on learning more about children’s play and humor. I have been a promoter of play all of my life!

AJP: In addition to your paper doll and small worlds play, did you engage in pretend play in other ways?

Bergen: Yes, I had a rich pretend play world, and my dolls had detailed imaginary lives. Also, my mother sometimes played pretend with me during the time when I was an only child. Though I never had an imaginary playmate

myself, I have discussed imaginary playmates when teaching courses on play, and I have had students who reported that as children they had an imaginary playmate. I think the significance of such playmates is that they often substitute for real playmates for children who are not engaged in much pretend with other children. However, imaginary playmates are also sometimes evidence of a child who is highly imaginative and whose parents are responsive to such experiences.

AJP: How did you come to teach preschool, and what was the most valuable lesson that you learned while doing that?

Bergen: When I went to college, the career options for women were rather limited, and so I chose teaching. I knew that I wanted to work with young children, and so I took the program at Ohio State University that led to both elementary and kindergarten certification. My first job was teaching second grade, and because at the time John Dewey still influenced university educational programs, I used many “active learning” methods in my classroom. I did not work outside the home when my own children were small, but when my middle daughter was four years old, I helped start a cooperative nursery at which parents served as part of the teaching staff. At a second cooperative nursery that I joined with my third daughter, the nursery managers asked me to become one of the teachers, and I accepted and worked in that program as director for about ten years. In my view, this model worked so well because parents learned about good practice just by being teachers’ helpers. And, of course, good practice then was to use play as a medium for learning!

AJP: How do you view the current trend toward rote learning and high-stakes testing in public education?

Bergen: As is the case with many play researchers and early-childhood teachers, I have many concerns about the changing focus of both public and private education. While I believe the assessment of learning is important (and have taught many assessment courses), the point of assessment should be to help the educator know what concepts are being understood by students and what concepts need more study or different ways of presentation. That is, assessment helps the teacher evaluate what children are learning well and what more extensive or different experiences they need. Children who are not doing well on assessment activities should serve as signals to the teacher that he or she should provide more or different learning experiences. For example, many children who do not do well on assessments of language and

reading come from families who did not give their children rich language and experiential environments when they were preschoolers (often due to lack of funds, long work hours, or inadequate backgrounds themselves). Thus, those children may need richer and more play experiences, more trips to visit sites that can give them context for understanding what they read, and other ways of enriching their experiential background to help them—through their play—absorb, understand, and support meaning in their world. These experiences then support learning and lead to greater language use and reading comprehension.

AJP: What cognitive demands does pretend play require of very young players? Does play allow players to practice these skills?

Bergen: There are many theorists who have talked about the cognitive benefits of pretend play—Jerome Bruner, Eric Erikson, Jean Piaget, and Leo Vygotsky prominently among them. However, in my view, assessing the cognitive benefits of play depends mightily on what researchers and theorists call “pretend play,” as some studies that have not shown cognitive benefits did not really study the type of pretend play that can engage children for long periods of time if they are in control of what they play.

AJP: What is the most beneficial type of pretend play?

Bergen: In my view, the most beneficial type is pretend play that involves child-initiated actions, language, and themes that may last for long periods of time and often over many days. It is composed of many cognitive demands such as imagination, action-theme congruence, problem solving, behavior control, creativity, regulation monitoring, and evaluation. As a pretend theme evolves, children constantly monitor whether the actions and language reflect the theme and either note incorrect actions or language or, sometimes, change the theme to reflect the differing directions. The entire pretend play time period is one in which these skills are practiced. However, when children have a ten- or fifteen-minute time period for pretend play, they are barely able to start because arranging the setting and deciding on the theme is about all they can accomplish in the time allotted. They really don't engage in the deeper pretend actions (and thus cognitive demands) until the play time goes longer. Often adults interrupt the pretense and destroy the thematic direction, and these kind of disruptions make for superficially cognitive demands. When pretend play is of long duration, however, there are many cognitive aspects. For example, planning, creative thinking, knowledge of settings and themes, self-regulation, and other

executive functioning skills, and language skills are all evident in pretense.

AJP: What is the social benefit of play for young children?

Bergen: This is another area that many theorists and researchers have discussed because much pretend play involves interactions with other children. However, there are social benefits of pretense and other forms of play even if the child is playing alone because there is often a social knowledge element and an understanding of what others might say or do even during solitary pretend play. There also are often pretend people or doll figures who are made to act as real people. When playing with other children, social role understanding (“You’re the dad, so feed the baby”) emerges, and players who do not perform appropriately for their role often are admonished. The benefits of social pretend play include learning to interpret cues and language of other children, to act appropriately in varied social settings, and to control social behaviors that are not appropriate for those settings. Pretend play allows children to practice social roles, and this makes them able to act appropriately in the “real” social world also.

AJP: How does pretend play help young children take and gain perspective?

Bergen: To be a good pretend player, children need to understand the perspectives of other players and the perspectives of the roles that they undertake. For example, “father” would protect “baby” if there were potentially unsafe situations (riding in the car; going to the zoo). In much of the time in pretend play, children are negotiating with other players about the next scenes to be played, the themes of play, or even the settings that are required so they must learn to understand and sometimes agree with the perspectives of other players if the play is to continue.

AJP: How does play further children’s emotional development?

Bergen: All kinds of play, and especially pretend play, give an outlet for children to express emotions that may not be allowed in other settings. For example, if a child is the boss, witch, baby, or whatever role, that role allows a set of acceptable emotional responses. Also, because much of children’s lives require them to do what adults command, in pretense children express emotions that may not be allowed in other settings. Often adults are concerned when children play scary or mean or bossy roles, but these roles provide safe outlets that help children control their emotions in nonplay settings.

AJP: How does play help children discover others’ intentions or appreciate their feelings? Can play aid the developing theory of mind?

Bergen: There is a body of research on this topic, and it seems that theory of mind may occur sooner in play situations than it does in real-world situations. Because the play world is so central to child experiences, and because much play requires understanding of others' intentions and appreciation of others' feelings, I think such play helps children develop theory of mind.

AJP: Can or should adults structure particular skills or developmental tasks into play themes?

Bergen: I would say that is not something that can be accomplished, because if the child is controlling the play, the skills and themes may change, and emphasis may differ from what the adult desires. If the adult is controlling the play so much that the children must stay with the particular themes or skills, then that is not play as I understand it. It is, rather, work disguised as play. However, it is possible to encourage general developmental growth in some areas—such as language, physical skill, and literacy—by having play settings with many opportunities for that growth. Usually older children's pretense is very private, occurring in basements, backyards, or their own room; and it is of long duration, extending over many days with similar themes. Often adults are only vaguely aware of this pretense. Much of it is small-worlds play—role-playing games that may also involve writing scripts that portray pretend figures.

AJP: Play is surely an end in itself, but can we go so far as to expect play to bolster skills that may specifically benefit adult careers?

Bergen: In my studies of adults' memories of their childhood play, I asked that very question. Many adults reported that their childhood play did have a relationship to their adult careers, as it did to mine. Sometimes these adults reported specific careers such as playing teacher, for example, related to their teaching careers, but others reported more general characteristics such as social abilities or thinking processes as the way that their early play benefitted their adult careers. That is, their play supported their growth in many developmental areas that were relevant for adult life.

AJP: How has play changed since you were a kid?

Bergen: Play has changed significantly since I was a child because technology-augmented toys and virtual-play materials did not exist in that earlier time. Much present-day play is done either alone or with online friends or just with family. In particular, today's children do not seem to have the long periods of time for play that I had, in which adult supervision was benign and gave children more of a sense of control over their play time. For

example, children of the past often had longer times for play outdoors with other children and did not have so many lessons or sports to take away self-directed playtime. Also, pretend themes have been greatly influenced by TV, movies, and other media as well as by toys that are very specific in theme. Even building materials like LEGO sets and Mega Bloks now are not usually blocks that could build anything but blocks designed to be only a fire station or airport. So children's imagination in play seems now more controlled by business.

AJP: What, if anything, has been lost in the change?

Bergen: We are still trying to evaluate the changes, but it seems that today we see fewer play experiences that promote active, bodily based modes of thought that Jerome Bruner noted are basic and occur before iconic and symbolic thought begins. For example, electronic tablet play with blocks is not the same as physically holding and building with blocks. How this affects brain development and other areas of development is a question of keen interest right now.

AJP: What do you regard as the most significant changes in play in the last two decades?

Bergen: Now children have much less time and space for outdoor play; they spend less time in elaborated pretense with other children. Then, too, more play themes are influenced by pervasive media. And the more structured lives that today's children are leading preclude the long hours of play that we once took for granted.

AJP: In what ways has technology changed play or afforded it more variety?

Bergen: Technology itself has created some new ways to play and has added new and different types of play experiences. But while technology has broadened play in some ways, it has also narrowed play experiences, making the child the "reactor" instead of the "actor" in play settings. That is, technology directs play, providing themes for play and eliciting particular types of responses, which narrows the play world to the themes mandated by the technology developer. The result is that the technology designer has a creative experience but the child does not!

AJP: Has technology helpfully augmented play in any way?

Bergen: Yes. With all the bells and whistles that technology provides, some types of play may well be more exciting. But I am not sure that means players are better off. Again, research is very limited, so effects are unclear. In some studies I did of toys with many technological features, if the child wanted

to do something that the toy did not suggest, the child had to overcome the message of the toy. Often there is more exploratory behavior rather than play with technology-augmented toys.

AJP: Are so-called “educational” toys any better than traditional toys or traditional play at helping children develop their minds?

Bergen: No. And, I don’t think there are two categories of toys, those that are educational and those that are not. Just putting that label on some toys misleads parents and other toy buyers. Often toy manufacturers are forced to put ABCs or numbers even on baby toys so that parents will think they are educational, but that is not what makes a toy educational. The toys that require the child to make responses to numbers, letters, colors, or other “learning” tasks are usually not as educational as a toy that the child can use for a range of pretend activities. On the other hand, any toy that engages the child in responding to stimuli, taking social roles, solving problems, or interacting with others is an educational toy.

AJP: You have been writing about technological toys for more than fifteen years. What sparked your interest in them?

Bergen: When the first wave of toys with computer chips came along, I consulted for a major toy firm to evaluate some of the first toys to get these technological enhancements. I examined how children reacted to them in comparison to their play with nonenhanced versions, and I have continued to study and write about technological changes in toys and how children’s play has changed as a consequence of them.

AJP: Is it possible to know if the new technological toys enhance brain development more than traditional toys do? And if so, what is your verdict?

Bergen: That is the most important question for me right now, but so far I don’t have the answer. I have speculated about potential brain changes that result from play with technology in a book that I just completed with two “techie” colleagues. Its title is *Technology Play and Brain Development*, and in it we describe the current situation and note that there is a major need for longitudinal research on this question.

AJP: Does the pantheon of heroes and villains that American popular culture produces inhibit creativity in fantasy play or enhance it?

Bergen: It probably does both. Today’s children use themes from popular culture to a great extent as they play, but if they are not totally immersed in that culture, their play tends to start with one of those themes and then diverge into their own experiences. The problem is that these themes are now so

pervasive that it is almost impossible to escape from them. For example, a particular hero or villain is not just a toy figure but also has movies, videos, online games, buildings, cars, etc. that all portray the themes so a child really has to override the theme to be creative. In my studies, I have observed that some children do override the themes or expand them; for example, making the superhero go home for supper or go to bed. Only some children are able to do this and, if they are constantly exposed to the themes the figures portray, it becomes harder to override those themes. Now we have a Barbie (and soon there will be other such figures) that is connected to the Internet and so children are even less able to think for themselves!

AJP: Will serious games find their way into public education? If so, should we expect technological means to help redress the deficit of pleasure, play, and spontaneity in current educational methods?

Bergen: For quite a long time futurists have been predicting that eventually “edutainment” will overtake “education,” and that does seem to be happening. The biggest problem with that right now is that educators are not the ones making these games, and so the values and procedures in the games do not necessarily reflect educational or developmental knowledge. The game developers are mainly gamers who like to play the games. We probably need a whole new group of educators who also can make edutainment materials.

AJP: Of what kind of academic research should toy designers take notice?

Bergen: There is a tremendous need for research on these topics. The toy company for which I mentioned having done research was Fisher-Price. It was concerned about such issues, but as far as I know, its owner, Mattel Inc. has not funded any research on such issues, and I don’t think many other toy companies or technology companies have expressed interest in funding this type of research. Also, in all the time I have been doing research on play, I have yet to see one federal grant or even any foundation grant calling for research on play of any type. Most play researchers do small-scale studies that cost only modest amounts because play research has never been at the top of funders’ agenda. Maybe if enough concern were expressed about the effects of technology-augmented play on brain development, then some major funders would become interested.

AJP: What advice would you give toy companies and game designers to make their products more useful to intellectual, social, and emotional development?

Bergen: The biggest piece of advice I would give is that they hire child development specialists and educators to be on their teams of designers because just knowing how to do the technology to make a toy or game is not sufficient for ensuring that a product is developmentally appropriate, educationally sound, and supportive of good brain development.

AJP: Does play present researchers with especially difficult challenges in formulating or in conducting research? Are there common biases that researchers need to guard against?

Bergen: In addition to the problem of getting funding for major research and longitudinal studies of play, there are a number of other challenges for play researchers. First, because there are so many definitions of play, researchers need to be clear about the types of play they are studying and be sure that the methods they use do not disrupt or change the play into “work disguised as play” or some other phenomenon. Second, they should focus on understanding play rather than on just using a play-focused methodology to study some other subject (which is often an academic area or a social-emotional area). Third, they should initiate more studies of technology-augmented play materials since these are so pervasive at the present time.

AJP: Switching to another of your core interests—play in different cultures—did your years in China attune you to the influence of culture in play? Do Chinese children play like American kids do?

Bergen: I first went to China in the late 1980s as a visiting scholar, funded by the U.S. National Academy of Science (NAS), to learn more about preschool education there and also to establish collegial relationships with Chinese scholars (a goal of the NAS program). I was in China, although not in Beijing, when the student uprising in Tiananmen Square occurred, and NAS required all scholars to leave the country, so I had to leave before I completed my research. However, during that traumatic experience, I learned what it might be like to live in a totalitarian society. I returned two years later to complete my data collection in Beijing and elsewhere in China. During the early years I was there, the preschool system was similar all over the country—same toys, procedures, and settings—and I did not see basic differences in the children’s play from that of U.S. children.

AJP: Aside from the similarities, what differences in play did you detect?

Bergen: Although the types of play—practice, pretend, games—were similar, there were a great many differences in the play materials. At the earlier times I was there, variously between 1989 and 2002, their pretense play

involved shopping for food and cooking, restaurant visits, doctor play, and other common themes similar to those of Western children. Their outdoor play included games, vehicle riding, swinging, and other activities, but the settings and materials differed from those in Western societies. For example, the play shopping area mimicked their outdoor markets, not Western supermarkets; and their outdoor play included many homemade materials.

AJP: Did you find on subsequent visits that the substantial changes that China has experienced over the last decade and a half or so have changed play for Chinese children?

Bergen: Yes. I returned three more times to China to give presentations and to work with colleagues so that I could continue to meet the NAS goal of collaborative work. On my last visit, I found that as China became more entrepreneurial, the play materials and the preschool settings appeared to be more similar to those of Western cultures, and there was more emphasis on learning through academic materials similar to those now seen in Western preschools. During my earlier visits, I noted that classes were very large and programs were connected to worker settings (such as the train factory preschools), but now the programs are smaller, much more like those in the United States, and rather than having all children of workers attend, the preschools are more likely to have paying families and not be open to all children. I do not think the change has been for the better.

AJP: Has your long career prepared you to say why academic psychology neglected play for so long?

Bergen: The problem of play for academics has always been that they have not been able to fit it neatly into their ideas of behavioral purpose. That is, play is a phenomenon that seems to occur without having a specific behavioral goal that is easily identified. Thus, much academic writing about play has focused on why it occurs, what purpose it may serve, and how to use it in the service of so-called “more important” behaviors such as academic learning. In my view, that is one of the reasons that the study of play as a valuable human behavior has not been supported by funders of research and that researchers have often been focused on small-scale studies. Thus, we do not have a large body of research on any particular play phenomena and do not have many longitudinal studies of effects of play on long-term developmental issues.

AJP: What areas of play research do you find especially needed today? Which trends need most encouragement?

Bergen: Two areas of research are becoming of special interest now. One is related to research in neuroscience fields because these researchers have noted how playfulness in other species is related to brain size and functioning. Another research area is promoted by the pervasiveness of technology-augmented play materials for humans of all ages. These newer play materials are changing many aspects of play both for children and adults, and there is growing interest in studying how they may affect other areas of development. The trend that I would like to see most emphasized is longitudinal research instead of these small-scale, one-time studies. For example, most studies of technology play presently being reported—my own included—involve children’s short-term exposure to these play materials, often in novel settings. Others use play as a venue for language, social, or other types of learning, and these are usually also small scale and short term. We need large-sample, longitudinal studies of play and related areas.

AJP: Have your studies of psychology across the life-span led you to consider if adults suffer from play deprivation?

Bergen: Actually in our present society, my concern is that adults are taking over play experiences, and it is children who are suffering from play deprivation. Many adults today engage in playful activities, some online and some not, while children are pressured to focus on nonplay activities most of the time. The long periods in summer and after school that provided the major playtime decades ago are now not available to most children.

AJP: How will we play in the future?

Bergen: Because play is such a basic human characteristic and probably influential in human survival as a species, I think play will continue—but it will be within the context of whatever our future environment provides. As long as there are malleable materials that can be used for many different purposes and unstructured time for children to control their own lives, then they will find ways to play. If the robotic world takes over completely, then play may be the mode only of the people who get to enjoy designing the world.

AJP: How will play best serve us in the future?

Bergen: Hopefully it will serve us as it has in the past by giving humans a wide range of capabilities, initiatives, and opportunities to shape and respond to whatever the future brings. Our play genes have made us great survivors in the past and should continue to help us survive in the future. We are, among all species, the players.