

## The Value of Toys and Play

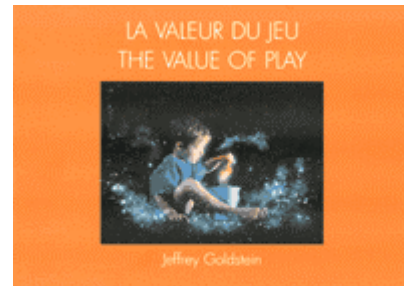
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Foreword by

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Prepared for

Toy Industries of Europe, December 2001



### Foreword

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### **Foreword**

By Dr. Julien Cohen Solal, Paediatrician

Reading this brochure was a real pleasure. When, as I have, you have been caring for and observing children for more than forty years, when you watch over a child's development in his or her natural environment and everything that makes up that environment - parents, day nurseries, companions and schools - you realize that children, much more than adults, are totally psychosomatic. With a child, everything is related and contributes to his or her future being. Physical and behavioural problems, basic genetic data and the formation of character modeled by his or her environment, all combine to help form the child's personality. Play makes a considerable contribution to this process.

This is why I am particularly happy to write these few lines, and I would like to thank Toy Industries of Europe for having asked me to prepare this foreword.

It is not always immediately self-evident that play, the natural activity of any child, should and ought to be its main activity. Play has an essential educational role until the end of childhood and all children throughout the world should be given enough time to enjoy playing games each and every day.

These notions have become somewhat obscure in our modern-day life. Many parents think that it is never too early to teach their children the rules of competition, unaware of the fact that emotional security acquired in early childhood and the fundamental experiences gained from play allow excellent emotional and intellectual development. This, in turn, enables them to move smoothly towards the initial learning processes in school and then, to making their way in the outside world.

Relationships with others begin at birth, but play begins with the first smile at the age of three or four weeks. It then continues with cuddles and kisses, which trigger restrained then unrestrained laughter. As soon as babies start babbling, they play both with the sounds they are able to create

and the ability to hear and listen to themselves.

But real play begins more especially at the start of prehension, at the age of four or five months. Children become aware of their body, they handle objects, throw them onto the floor, pick them up, then throw them down again. They understand the fundamental notions: shape, consistency, weight, objects that are soft or hard, small or big, heavy or light, the top, the bottom, the left and the right. As they go about their bodily education and acquire more knowledge of their bodies, they set out to learn about themselves and about space. They discover the relationships of cause and effect, and we are often amazed to observe their considerable attention while experiencing this revelation. In their activity, they forget the notion of time and practice repetition and perseverance.

A little later, after having played on their own, they are confronted with relationships with others. They learn all about imitation, success and failure without ever realising their significance.

So little by little, a child's interior structure grows through play. Play helps children to dream and to imagine, to transform fantasy into deeds by performing all the roles their imagination dictates to them. Play also allows them to face up to reality and to solve the considerable problems that reality can impose. Whether finding their place with respect to their parents or squaring up to the inevitable jealousy felt towards a younger brother or sister, children will find that play makes it easier to accept a given situation or to release their aggression.

The simple cuddly animal, so soft to touch that it becomes a 'transitional object', is totally essential to a child's overall equilibrium and, during the first few years in life, plays a significant role as confidant, accomplice, comforter and friend. Drawing, playing with colours and spoken humour, so wonderful around the age of 4 or 5, also play a substantial role in this inner structuring process.

"If we let children play the way they wish, they generally find the solutions to the problems they have to cope with". In this quotation by Bruno Bettelheim, we can clearly understand the role of parents. Their benevolent presence, their approval and often their participation are necessary, but they must avoid turning a children's game into an adult lesson; children must be allowed to finish the game on their own without parents ever devaluing what they achieve.

By on occasions showing and translating action into words, we can increase a child's liking for play. Parents must do all they can to encourage the self-confidence in their children which is created by these countless learning processes.

The irreplaceable role of parents is also to give their children, who then show an immediate interest in such objects, the right toys for their age. The input provided by toys, many of which are the end-result of a great deal of careful thinking and very specific preparation, is absolutely fundamental. So while having fun, children transform their immediate pleasure into a joie de vivre that is so necessary for a happy life.

If we compare these two notions - the bases of development taking shape up until the age of 5 or 6 and the fact that play is a child's life until then- we can safely put forward the theory that children's personalities are moulded by the act of playing. This highlights the appeal of a brochure such as this, based on an exhaustive study of all the recent major works. It is therefore of essential importance that it be read and reflected upon by as many people as possible in positions of responsibility.

### **Toys and play: a complementary value**

Toys and play:  
a complementary value

A baby reaches for a mobile suspended above its crib.

A toddler sits on the floor attempting to stack cubes.

Mother and baby play a game of "peek-a-boo".

A 15-month-old girl puts her teddy bear to sleep.

6-year-old boys take the roles of characters they have seen on television and imagine that they are on a space ship.

We recognize these as play. Children say they play because "it's fun". But it is much more than that. Play is necessary if the child is to become an active, creative, healthy adult.

This booklet is based on the latest psychological and educational research. Child psychologist Jean Piaget (1962) said, "We can be sure that all happenings, pleasant or unpleasant, in the child's life, will have repercussions on its dolls". Toys and play help children cope with the past, understand the present, and prepare for the future. Studies of animal and human behaviour show that play has a biological purpose, preparing the young for the future (Fagen, 1995; Smith, 1982).

Many scientists, artists, and architects attribute their abilities and interests, even their careers, to childhood toys, games, and play (Greer, 1989; O'Leary, 1990; Tracy, 1990).

Play helps children answer the questions: what can I do in this world? What am I good at? What might I become? (Adelman, 1990).

Play is exercise for mind and body

### **Playing is learning**

Although children do not play in order to learn, they learn from play. Among psychologists and educators, there is universal agreement that playing is learning (Bruner, 1972; Fein, 1982). During play, children try new skills and different roles. One review of more than 40 studies (Fisher, 1992) found that play is significantly related to:

creative problem-solving  
co-operative behaviour  
logical thinking  
IQ scores

peer group popularity

Playful children are happier, better adjusted, more co-operative, and more popular with their peers than those who play less. Children play longer when a wide variety of toys is available. In one study, the availability of toys in infancy was related to the child's IQ at 3 years of age (Elardo, Bradley and Caldwell, 1975).

During play children make use of many learning devices: they treat toys in novel ways, often narrating their activities, and they group similar toys together, simplifying memory. When 4-5-year-old children were asked to "play with" or "to remember" 16 common objects, they recalled the items better when instructed "to play" with, than "to remember", them (Newman, 1990).

### **Motor skills**

All play is active, and as a result promotes co-ordination, flexibility, and fine motor skills (Byers and Walker, 1995). Toys that are responsive to the child's movements hold the child's attention. Attention span during free play depends almost solely on the type and number of toys available (Moyer and Gilmer, 1955). Sustained attention is important for reading and many kinds of learning and performance.

Many toys encourage physical play: activity centres for babies, push-pull toys for toddlers, and blocks, balls and climbing frames for older children. Play involving brisk movement is related to the development of a wide variety of physical skills, including those involved in sports (Bunker, 1991). Sports in turn are related to health and life satisfaction.

### **Creativity and problem solving**

Thinking and problem-solving skills, "cognitive development" to psychologists, are fostered by toy play. In one study, two hours a day of play with objects produced changes in the brain weight and efficiency of experimental animals (Rosenzweig and Bennett, 1976). Likewise, children with access to a variety of toys are found to reach higher levels of intellectual achievement. This is so regardless of the children's sex, race, or social class (Bradley, 1985; Wachs, 1985).

Properly selected toys stimulate imagination, encourage physical activity, and help children attain physical, intellectual, and social skills. According to research conducted in homes, the two most powerful variables related to cognitive development during infancy and the pre-school years were the availability of play materials and the quality of the mother's involvement with the child (Elardo, et al., 1986; Gottfried, 1986).

Play provides the ideal opportunity for imaginative thought and creativity. Play does not ensure that such desirable cognitive abilities will result. However, it is a medium that provides the ideal arena for these abilities to emerge, because it requires openness and imagination (Singer and Singer, 1990).

Based on a review of more than 40 studies, Fisher (1992) concluded that play enhances the progress of early development from 33% to 67% - by increasing adjustment, improving language and reducing social and emotional problems.

Imaginative play develops thought and language. Through play, children learn to distinguish between fantasy and reality (Singer and Singer, 1990). Play contributes flexible thinking and problem-solving by allowing children to play through their ideas (Pepler, 1986). The more children engage in imaginative play the happier they are and the better they perform on tests of creativity. Children who play before taking a test of creativity perform consistently better than children who engage in non-play activities prior to the task (Christie and Johnsen, 1983; Dansky, 1980; Johnsen, 1991; Pepler and Ross, 1981; Smith and Simon, 1984). The symbolic transformations that occur in make-believe appear to be the key link between play and creative thinking (Barnett, 1990; Pepler, 1982; Singer, 1994).

Toys that stimulate cognitive development are appropriate for the child's capabilities, responsive to the child's movements, provide feedback when manipulated, and require imagination or fantasy. Toys particularly useful in the development of these abilities include dolls, figures, cuddly toys, puppets, costumes, and construction toys.

It is sometimes claimed that television marketing of toys, or certain toys themselves, limit children's imagination. It is feared that children duplicate the scripts of toy advertising or TV programmes (Carlsson-Paige and Levin, 1990; Kline, 1993). But children are not video-recorders. Children select from an enormous variety of media images those that appeal to them on widely different grounds (Kubey and Csikszentmihalyi, 1990). And they use them for their own purposes - to play different roles, try different possibilities, master skills, and make and maintain friends.

### **Language and communication**

The ability to read, speak and do maths ultimately rests upon the child's capacity to use symbols, such as for example, a block to represent a truck or a telephone. Play at an early age (13-24 months) facilitates language (Hall 1991; Ungerer and Sigman, 1984; Shore, 1986).

Symbolic play improves reading and writing skills of children in kindergarten and first grade (Pellegrini, 1980). Responsive toys produce more speech and more social play in 2-year-olds (Dunham, et al., 1991; Farver and Wimbarti, 1995). Interactive toys, that easily lend themselves to sound effects, or give feedback during play, produce more competent speech (Pellegrini and Jones, 1994).

In order to play different roles, children must be able to organize and communicate (Hall, 1991; Rome-Flanders, et al., 1995). Toys that talk, such as robots, or require speech, such as role-playing games or puppets, obviously contribute to the child's language skills. But so do toys that children talk to or speak for, like dolls and action figures.

### **Social development**

The infant's first experience of play is with parents and siblings, who try to elicit interest and laughter from the baby. Play helps infants and toddlers gain a sense of independence and identity. Their first steps towards independence come with their attachment to soft clothes or furry toys. Children with "transitional objects" which they cling to at bedtime or when distressed have fewer sleep disturbances and are reported in 3 out of 4 studies to be more agreeable, self confident, and affectionate (Litt, 1986; Singer and Singer, 1990; Winnicott, 1971).

During social play children acquire knowledge and information (such as colour names and word spelling), learn personal limits (including the limits of acceptable aggression), and social rules. During play children form enduring bonds of friendship (Mos and Boodt, 1991; Pellegrini 1987). And if they play with adults, friendships form with them, too (Goldstein, 1996; Mize, Pettit and Brown, 1995).

Playful children are more physically active, creative, humorous, imaginative, emotionally expressive, curious, and communicative (Singer and Rummo, 1973). There is a strong relationship between play and perspective-taking, which is associated with greater co-operative behaviours, sociability, and peer-group popularity. Play is significantly related to divergent thought, IQ scores, and logical thinking (Christie and Johnsen, 1983).

Frequent fantasy play helps children to sustain impulse control and to entertain themselves when required to wait. Playful children use a variety of imaginative experiences to moderate their anger, while children who lack these inclinations are more aggressive (Saltz and Brodie, 1982). Fein (1987) writes that "pretence provides an unusual opportunity for children to control their own emotional arousal and to maintain a level that is both comfortable and stimulating". When teachers or parents interrupt or prevent children from fighting and play fighting, although they intend to prevent injury, they may inadvertently prevent children from learning useful social skills, how to resolve conflict and reconcile afterwards (de Waal, 1989; Pellegrini, 1995).

Some toys promote social play. 2-to 6-year olds at day-care and nursery centres in Nashville, Tennessee, were observed during play. Dress-up clothes, toy wagons, balls, and a puppet stage were far more likely to be played with in co-operative social play than were puzzles, a toy sink and pull toys, all of which were used primarily in isolated play (Hendrickson, Strain, Trembly and Shores, 1981).

Toys are put to other social uses; they are often shared. For example: in a study of English nursery classes, a newcomer to the class was first approached with "gifts", toys or sweets offered in friendly overtures (Waterhouse and Waterhouse, 1973).

### **Sex differences and sex roles**

Children as young as 18 months may already show a preference for boys' or girls' toys. Sex differences in toy preference were noted in research as early as the 1930s (Parten, 1933). And they apply as well to American, Dutch, English, Italian, and Japanese children (Suito and Reifel, 1992; Zammuner, 1987).

How does a toy become sex-typed? When children see mainly boys (or mainly girls) playing with a toy they classify it as a boys' (or a girls') toy (Shell and Eisenberg, 1990). Packaging and marketing of toys may also contribute to the perception that some toys are appropriate for one sex or the other (Kline and Pentecost, 1990; Schwartz and Markham, 1985; Smith and Bennett, 1990). Catherine Garvey (1991) traces the origins of sex-types toy preferences to parental behaviour, to the parents' influence as models. Children who choose traditional sex-typed toys are more likely to have parents who hold traditional gender role attitudes (Rheingold and Cook, 1975).

Toy preference is also affected by hormones. Both boys and girls exposed prenatally to high levels of the male hormone androgen showed greater preference for traditionally boys' toys three to eight years later (Berenbaum and Hines, 1992; Meyer-Bahlburg et al., 1988).

### **Play as education**

Progressive educators like Maria Montessori at the turn of the century believed that toys should be introduced into schools to facilitate learning. Today toys and play are used in schools especially to promote artistic, problem-solving, language and social skills (Brougere, 1995). Schools in Austria teach the first few grades exclusively through play (Hartmann, 1995).

### **Why don't all children benefit from play ?**

Toys and plays provide the ideal medium for the development of imaginative thought, language, creativity and social skills. But the right toys do not ensure that all children will benefit equally, or at all, from play. Toys do not have much interest for children who are deprived of loving and supportive families, teachers and friends.

To be motivated to play, children must feel secure and comfortable in their surroundings (Garbarino et al., 1989) and they must be free to direct their play as they choose. For children who experience safe and supportive relationships, toys are potent means for enlarging their social, communication and intellectual abilities.

The effects of play depend upon characteristics of the children (such as their age, sex, general playfulness, physical and mental abilities) and the play setting. Judiciously-selected toys can stimulate and sustain imaginative play and contribute to all forms of intellectual achievement. Very young children need more structured toys, those that represent familiar objects (home furnishings, trucks, dolls) for imaginative play. As their ability to think abstractly improves, and as language develops, they are able to use less realistic objects (blocks, arts and crafts materials) in their imaginary activity (Fein, 1981; Pulaski, 1970).

Children's play experiences are apt to be most positive when supportive adults, who encourage play, are present, when the play setting is familiar and comfortable and when a broad range of toys is available to allow many types of play.

### **Conclusion**

Children who do not play, or who do not play as often as other children, are at increased risk of psychological, intellectual and social deficits. To reap the full benefits of play, children need supportive adults who recognise the value of play and encourage children by providing a safe play environment and adequate playthings that permit a wide variety of play activities.

Jacques Treffel, Inspecteur General de l'Education Nationale, wrote in the preface to *Aide au Jeu*, by Henry and Aufavre-Bouilly, (1993):

"A toy is a wonderful object, indispensable to physical, psychological and intellectual development, both for those who have the capacity to integrate into society and for those who encounter difficulties."

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\* Recommended for further information.

## Biographies

Professor Jeffrey GOLDSTEIN is with the Department of Social & Organizational Psychology and the Department of Mass Communication & Public Relations at the University of Utrecht, the Netherlands.

His books include: *Toys, Play, and Child Development* (1994, Cambridge University Press), *Introduction to Psychology* (with Patricia Wallace, Wm. C. Brown, Publisher), *Sports, Games, and*

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Dr. Goldstein is a founding member of International Toy Research Association and is a fellow of the American Psychological Association, the American Psychological Society, the International Society for Research on Aggression and is a member of both the American and European Societies for Experimental Social Psychology.

As a consultant to industry and philanthropic foundations, Professor Goldstein summarizes scholarly research for non-academic audiences.

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