

Play in retro- and perspective
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1. *Introduction*

During more than 40 years I had the opportunity to follow the development of play within the European context. It is my intention in the first place to look back to what happened in the past century. Which were the most important theories? Which play types were distinguished? How do children play at different ages? What is the relation between play and therapy and last but not least between play and education?

In the second part of my presentation I will try to look forward and shortly discuss the need for new theories about play. Further the issue of use and misuse of play seems an inevitable discussion point just like the theme of nature and nurture. Finally one should consider the relation between play and the increasing influence of technology.

I start with taking a retrospective view of the past century, a historical orientation.

In the interest of future play research I mention a number of bibliographies, which can be helpful for documentation:

- 1.1967 "Children's Play a research bibliography" (authors: R.E. Herron, S. Haines, G. Olsen & J. Hughes). Champaign (Illinois): Motor Performance Laboratory, Children's Research Center, University of Illinois.
- 2.1971 "Dokumentation. Bibliography Play in Childhood". München: Deutsches Jugendinstitut.
- 3.1976-1983 "Annual report of the leisure behavior reseach laboratory." Champaign: University of Illinois.
- 4.1976 "Thema Spielplatz. Eine kommentierte Bibliographie" (authors von Hase & Möller). München: Juventa Verlag.
- 5.1978 & 1980 "Selective bibliography Preschool Education. Prague: Central Library. Pedagogical Faculty of the Charles University. (Five books with summaries of the described contributions).
- 6.1980 "DJI Dokumentation. Kinderspiel und Spiel mit Kindern" (author: B. Schröder). München: Deutsches Jugendinstitut.
- 7.1987 "Bibliography on play and play environments" (author: J. van Andel). Tilburg: IFIC-IPA.
- 8.1997, 2000 "Play references" (author: J. Christie). Tempee: Arizona State University.

Looking back at the importance of play in the last century, I conclude that the general opinion was that play played an important role in praxis and theory during the first ten years of children's development. The great number of publications confirms this statement.

2. *Play in retrospective.*

As mentioned in the introduction I will start with a short reconstruction of the history of play theories.

2.1. Theoretical approaches of play in the past

One cannot deny that the structure and complexity of our society influenced the view upon play. In reality play became a topic of discussion during the last part of the 18th century. Schiller's (1794) fundamental statement: "The human being is only complete, when he plays" is one of most frequent used citations from that period.

A number of theories about play were formulated in the 19th century. Spencer (1855), Lazarus (1883), Hall (1904) and Groos (1901, 1922) belong to the first theorists of play. Their vision was dominantly founded in Darwin's evolutionary theory of mankind.

Overviewing these different theoretical approaches they all explain some typical aspects of the play behaviour. None, however, pays attention to the individual developmental aspect of children's play.

In the 20th century a more individual approach was developed. However, new problems were created. The first problem which scientists and practitioners had to envisage was the manifold of theories. One general theory was lacking, the developed theories explained only one or two of the four following behavioural patterns:

- sensori-motor activities
- cognitive behaviour
- emotional reactions
- social activities.

Later, I will mention a number of the most applied theories.

On top of the problem of the great number of theories, a kind of scientific war within the social sciences seemed to exist between advocates of the nomothetical, quantitative approaches, and the hermeneutic, qualitative methods. Also in the world of the play researchers, one can discover this antithesis. In my opinion the lack of integration of these types of approaches forms the second problem.

To summarize: in my opinion the main problems in the 20th century were

1. the lack of one general theory
2. the antithesis between the qualitative and the quantitative approaches.

In order to support my statements I will now mention some of the most applied play theories.

Jean Château

One of the most outspoken hermeneutic approaches came from the Frenchman Jean Château (1946, 1954). A number of his statements is internationally known. He formulated: "The challenge of the elder is the essential motor of childhood." And: "In the rules of play the child seeks a kind of self-affirmation." This last statement ended in his main classification of play with and without rules. The main border between play without and with rules he located at the age of seven years. Within these periods he divided different play forms which are also mentioned by other theorist, which had a different theoretical background.

Charlotte Bühler

Charlotte Bühler (1928) is often characterized as the first modern theorist. She put an accent upon the importance of sensori-motor play for the child's development. Her theory concerned especially the concept of "function", with which she intended the sensor-motor activities. Her statement: "It is not the concrete material which is being formed, but a movement, a function with and to the material is established" is still frequently cited. Her approach had a kind of quantitative character by her systematic observation of a child.

Piaget

Piaget (1947, 1968, 1972) described the first two years in the child's development as 'the sensori-motor-phase'. In fact he distinguished two play forms: sensori-motor-play and symbolic play. The last type starts to develop around the age of two years. Piaget's theoretical approach has its roots in biology. His fundamental idea of the equilibrium between assimilation and accommodation shows this biological background. The distinction between play as a form of assimilation and imitation as a form of accomodation was one of the main reasons for the discussion between Piaget and Sutton-Smith in 1976. Sutton-Smith did not agree with the separation between play and imitation. Still, nobody can deny the importance of Piaget for the study of the child's development. His name is famous all over the world. However, his separation between play and imitation will in my opinion start the discussion again, when in future new theoretical concepts will be developed. I will explain that later in my suggestion for the development of new theories within the perspective part of my presentation.

Erikson

Erikson (1974) was one of the few hermeneutic play theorists who looked into the emotional aspects of play. His neo-psycho-analytical view was founded upon three principles: the so-called pleasure principle, the principle of repetition compulsion and the defence against anxiety princi-

ple. The orientation of the ego takes place in three circles: the auto-, the micro- and the macro-atmosphere.

In their theories Elkonin (1980) and Sutton-Smith (1978) underline the social aspects of play. They emphasize the importance of the initiatives of the educators for the play development. In fact the principle of modelling was the basic starting point of both theories. Interesting was the accordance between these theoretical developments, which rooted in two totally different types of societies: communistic and capitalistic.

2.3. The distinction of different play types

For the praxis of early childhood education it seemed to be important to distinguish different play forms. I doubt if in the future the categories will be applicable. Analyzing the theories about play, it seemed logic to discover a common aspect in the different theoretical approaches. Already 30 years ago I came to the conclusion that almost every theorist distinguished in relation to individual play four play types:

1. sensori-motor play, also known as function play. I prefer the descriptive name "repetition play", because the most dominant phenomenon of the sensorimotor play behaviour is the repetition of movements;
2. imitation play, which is also known as symbolic play or fiction play;
3. construction play in which meaningless elements are put together to a sensible or meaningful whole;
4. world play, in which children build an own world with meaningful elements (houses, trees men and animals). We preferred the concept 'grouping play', because of the grouping of toy elements.

My preference for the use of descriptive terms of the different play types is the consequence of the fact, that one should avoid inclusive explanations from the passed and open the possibility for new theoretical explanations in the future.

2.4. Relation between play behaviour and the developmental stage

Modern theories about play often indicate a relation between play form and age of the children (e.g. Bühler, Château, Erikson and Piaget). However, the experimental investigations about this subject are scarce. In fact, within Europe only van Wylick (1936), van der Kooij (1977) and van Gils (1992) were engaged in systematic play observations of children at different ages.

That we live in a changing world becomes clear, when we compare the observation results of 1936, 1977 and 1992. I will not bother you with tables and statistics. My conclusion is that between 1936 and 1992 repetition play (sensori-motor play) increased and imitation play

diminished with percentages between 40 and 50%. The percentage of creative play types as construction and grouping play (worldplay) also reduced.

One cannot avoid the challenge of explanation of these findings in the future.

It is remarkable that general inventories of the individual play at different ages as took place in Europe, never happened in The United States of America.

The American interest for social play was more dominant. Already in 1933 Parten started her experimental and systematic observation of social play. Her observation categories (solitary, parallel, associative and cooperative play) built the basis for further research of social play as continued by Barnes (1971), Rubin et al (1976) and Tizard et al (1976).

2.5. The use of play in education and therapy

Within the therapeutical divergence of approaches three main streams can be distinguished: psychoanalytical, non-directive and behaviouristic approaches.

Traditionally in therapeutical relations play is used as a form of communication. There are quite a few publications about the use of play within the psycho-analytical approach. In fact Anna Freud (1972) and Klein (1969) were the first scientists who described their experiences with play therapy sessions. More recently in Germany the work of Schäfer (1986, 1989) should be mentioned.

The non-directive approach following the principles of Rogers, was introduced by Axline. Within the non-directive approaches play is treated as an original activity of children and this aspect is often mentioned as legitimate base for its use. Schmidtchen (1991) was engaged in this therapeutic approach and recently in Germany Goetze (2002) presented a magnificent handbook with a survey of the non-directive approaches to children.

Millar (1968) stated that in the Behaviouristic approach "often the play is reduced to nothing." I agree with this statement, because the analytical method within the learning psychology does not do the complexity of play actions and - activities justice. With a metaphor I compare play with a ball of yarn; when one unrolls the ball one must conclude, that the remaining fibre is incompatible with the ball of yarn.

Not only within therapeutical approaches play is used or applied. Also in educational settings play often forms a medium in order to reach educational goals. Playful created situations in which didactic goals become attractive for children are becoming popular. In Scandinavia Trageton (1997) had a great influence upon the relation between play and school. In Austria Hartmann (1988) is already almost three decades engaged in the topic of play and school and in the United States Christie (1991) is since many years active in this field.

3. *Play in perspective*

I hope it becomes clear from my retrospective view that:

- we need new theoretical approaches
- the borders between nature and nurture should become clear in relation with educational and therapeutic interventions and also that
- the topic of use and misuse of play requires further discussions and that
- the consequence of technology should become a point of discussion.

3.1. Need for new theoretical approaches

We need new theoretical foundations for the explanation of human behaviour, especially in relation to play. Unlike with other scientific disciplines, we still work with theories which are over 30 years old. As human beings we are characterized by our cognitive capabilities. It seems to be logical that the view of modern approaches within the cognitive psychology should be profited in the explanation of play, because they take into account the influence of the activation of brain cells. .

The fundament of new approaches is the concept of "the production". The main characteristic of the production is the "if, then" property (compare van der Kooij & Been, 1996):

IF I eat an apple, THEN I eat fruit

IF I eat fruit, THEN it is healthy

IF I eat an apple, THEN it is healthy.

In fact the result is: IF I eat an apple, THEN it is healthy. The second step "IF I eat fruit, THEN it is healthy" one can forget and does no longer appeal to memorial storage.

The fundamental thesis of modern cognitive approaches is that the combination of a number of these 'if, then' steps results in efficient problem solving. This is not only the case in cognitive thinking processes, but also in sensori-motor problem solving during play. An important sensori-motor learning process takes place when one learns to drive a car: IF I want to drive, THEN I must turn the key, IF I want to start the engine, THEN I must choose the gear, IF I want to drive, THEN I have to press the pedal. Final result: IF I want to drive, THEN I have to press the pedal.

The build-up of our functional systems, sensori-motor as well as cognitive, takes place along the chunking of these productions. The realisation of productions needs a lot of exercise, of repetition. In this way the huge amount of repetitions during early play activities can be explained. Learning curves during early childhood are very steep. Thanks to play, and thanks to the intensive repetition the development progresses.

The metaphor in which I compared play with a ball of yarn, has not only the advantage of being a warning against the use of analytical approaches. The second advantage is, that one can make clear, that almost every existing theoretical approach and most of the applied experimental designs show a one sided approach. If I would like to get a complete picture of the shown play behaviour, you should approach it simultaneously from different perspectives. In the past I held a plea (van der Kooij, 1986) for the simultaneous application of observation categories and the use of the play intensity scale, with concepts of intrinsic motivation, internal locus of control and suspension of reality. Two years ago during the ICCP-conference I proposed the same type of approach for the observation and interpretation of the social play behaviour.

3.2. Use and misuse of play

Looking back to the last century one cannot avoid the fundamental question in relation to education: Where are the dividing lines between use and misuse of play?

As mentioned before play is often used as a medium in communication and education. Germany knows the tradition to speak of "Spielpädagogik" (= play education). Already some decades Heimlich (2001) pleads for 'play education'. A four volume handbook of Kreuzer (1983) was named "Handbook of play education".

Ten years ago Sutton-Smith was invited as 'play pope' to the second Amsterdam Play Symposium in order to treat the fundamental problem: "Where are the borderlines between use and misuse of play?" He had a good presentation; however, this theme was only treated in the side-line. In the beginning of this new century one cannot avoid, the unsolved problems of the 20th century! Until now, this fundamental question of use and misuse has not been treated extensively enough. Freedom of play, one of its most fundamental characteristics, should not be threatened in educational or therapeutical situations. Therefore, guidelines should be offered to educators and therapists.

3.3. Dividing lines between education and inheritance

Also in this new century we cannot deny the convergence theory as originally formulated by Stern (later reconfirmed by Bronfenbrenner & Ceci (1994)) in which both nature and nurture play an important role in the child's development. In my opinion the aspect of nature, of inborn factors, upon the child behaviour has been neglected. This did not fit in the policy and philosophy of the 20th century, in which under American influence, "everything seemed to be make able". It is astonishing that in the past century the discussion about nature and nurture was not more influential. This fact also has impact upon the former mentioned dividing lines between use and misuse of play, as educational interventions are only justified when their goals are attainable.

3.4. The neglected inborn factor of imitation

Looking back to the theories about the child development rather much attention is paid to the phenomenon of 'trial and error', which is already visible at an early stage in childhood. Because those behaviours are already observed among babies one can conclude that 'trial and error', often also related to curiosity, seems to be an inherited quality of mankind.

Observing the behaviour and especially the play behaviour of young children the amount of imitation of what happens in the surroundings is remarkable. Piaget speaks about this behaviour as 'prereflexive imitation'. It is astonishing that afterwards Piaget distinguished play and imitation as separated dimensions. I agree with Sutton-Smith, that play and imitation cannot be separated. Imitation seems to be inborn and in my opinion is next to 'trial and error' the second inherited motor of especially the play behaviour. It deserves much more scientific attention and research in the future.

3.5. Technology and play

From a theoretical point of view and from an experimental standpoint I dare to state, that the environment of a child has an important influence upon the play behaviour.

Also in the future the sensori-motor play of children under four years of age will be of great importance for their further development as was the case in the passed centuries. The influence of the environment increases rapidly after the age of four years.

Studying the changed environment in our increasingly technological world, can be raised the fundamental question which influence this will have upon the children's play behaviour.

A lot of children already play computer games at the age of three or four. This causes the need for new observation strategies. The former mentioned observation-categories (repetition, imitation play, etc) which are applied in the last century, do not seem useful nowadays. A lot of actions which were visible in the traditional play forms, seem to become invisible for observers during computer play. I dare to predict, that we need to develop new observation strategies in order to judge the play behaviour behind the computer. The traditional observation categories focussed upon the way children treated their surroundings and their toys. In fact this concerns a form aspect, because the main criterion was the way children handled the toys. Maybe, we need a more content oriented observation system in the future.

In a changing Western world, we need new theories, new observation methods and last but not least more attention for children's play in our Western societies!

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