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## 15 Mainstream Toys for Play

### 15.1 Introduction

When considering the topic of devices to support the play of children with disabilities, it is important to notice that the contributions may come from two fields: care (rehabilitation, education) and the play itself. Within this second field, play is considered as an activity for pleasure. Its goals and results are not linked with a specific capacity, but concern the child's whole developmental areas: personality, motor, social, cognitive, emotional. Its primary objective—and maybe the only one—is 'to play'.

Pleasure of play, according to Huizinga's definition (1938), comes from free activity; this is the reason for children's autonomy is valued, even if very little, so that they can take charge of their own play and deeply feel themselves, making experience of their own sensitive and emotional being. If it is difficult to share a definition of play, however it is possible to describe playfulness, which is the capacity of any child to fully and freely engage in play, according to Winnicott (1971). Playfulness is represented by four domains: active engagement, internal control, social connection, and joyfulness (Cornelli & Sanderson, 2010).

Toys and games, which belong to the concrete reality around children, are the essential mediators between a child and him or her/self, a child and the others, children, or adults. When used in good conditions, they allow children who have impairments to find playfulness in its four dimensions, in relation to their developmental level.

For this reason, the features of toys and games should be analysed as precisely as possible to find out their specific 'ludic springs' which are suitable for children with disabilities. Moreover, the conditions of access to play materials inside the play areas and the toys' arrangement should also be taken into account, as well as the roles concretely played by adults when supporting children with disabilities as they use toys and games.

The following three milestones belong to the concept of 'play framework' (Perino, 2006), which is a way to think about devices for play in their entirety.

First, concrete objects of play, which are appropriate to the player's abilities and interests, are to be chosen, including all types of games and toys, from rattles to videogames.

Second, the adults' role, parent or professional is to be considered as a major element around the children playing with toys to support free play and feelings of safety and capability. The interpersonal distance between adults and children is modulated according to the physical and psychological needs of the player and the appropriate toys to give playfulness and "the capacity to be alone" (Winnicott,

1958) the opportunity to raise. The adoption of the cited play framework allows adults to adequately separate playtime and play spaces from the other activities, to support children in understanding what are the aims of such moments and why the adults' behaviours change in this specific area and time of life. Adults should always be supportive towards children, encouraging them by positive feedback and congratulating for their achievements.

Third, the physical arrangement of toys and games within play areas is to be minded and verified to the purpose of adjusting it to the players' possibilities. Toys and games can be presented inside thematic areas as isolated or unorganised. Usually, they are shown and kept well in view, except in specific cases. Furthermore, it is important that toys are organised according to their specific possible way of use, to support the child's capacities of classification, seriation, and categorisation, which are at the basis of creating one's own wellbeing (Rosenfeld, 1992).

The theoretical method of choosing toys or games is based on the level of competence required in using them (Garon, 1981; Piaget, 1945). It encompasses the following three steps:

1. To analyse a toy or a game to determine the type of play it subtends or implies, the 'category' it belongs, which depend on its functionalities, without taking too much into account the manufacturer's declared goals. The latter could bring useless elements, for marketing reasons.
2. To detect the physical features of objects, which make them easily usable within their own category: are they big enough, easy to grasp, well-coloured, do they have sounds or not?
3. To verify whether some elements of the objects can make "ludic springs" more attractive than other ones within the same category.

When analysing toys and games, first of all, it is essential to be aware of the toy safety issue (European Parliament and Council, 2009). In many countries, in order to be commercialised, toys must pass safety tests, which mainly concerns the aspects related to their mechanical and physical properties—such as flammability, migration of certain elements (i.e., chemical products), electric systems. Furthermore, age determination is required, when parts of toys are not suitable for children under three years.

If the observance of these standards helps to ensure an overall safety, they do not always guarantee the best security of players:

- Sometimes, children use toys in a way that is not consistent with their intended purposes or proposed age.
- Old or used toys can lose their original qualities to the point that they do not meet anymore the defined safety standard
- Homemade or artisanal toys may not be in line with the safety standards
- Last but not least, in the case of children with disabilities, an increased vigilance is needed because in some cases—due, for example, to sensorial impairments—the use of toys can lead to risky situations

## 15.2 Devices for the Play of Children with Intellectual Disabilities

Any category of toys can encompass supports of play, depending on the players' interests and levels. The first step to choose appropriate toys is to bear in mind the degree of the players' intellectual impairment and the types of play they would be able to be involved on, consequently choosing toys for practice symbolic, constructive play, or for rules-based games.

Then, within a specific category, the choice depends on the player's interests and tastes for some aesthetic aspects (colours, dimensions, etc.), sensorial effects (texture, smell, etc.), and also for the type of use (action to be made, manipulation, etc.).

Therefore, the choice also depends on the toy's power to facilitate the play activity and to make it particularly attractive to the child.

### 15.2.1 Toys or Games Features

Practice play. Toys for this type of play provide strong stimuli and require non-complex or few successive actions by the child; each sequence of play is short enough to allow children to keep enjoying play, without losing their interest (which is frequent in young children and in children with intellectual impairment); toys that propose unpredictable effects or with non-visible mechanisms of activation are not useful because they do not give children the opportunity to connect their action with its results, thus maintaining children in a kind of 'magical thinking'. In addition, in order to avoid stereotyped sequences of play and to help the child evolve and adopt new different kinds of gestures and more complex movements, it is useful to provide different objects to make the same ludic activity, for example, pop-up toys that are operated in different ways.

Symbolic play. For a player interested in symbolic play, the shape and size of the toys must be as realistic as possible; moreover, they must represent aspects of the real and daily life environment.

Make-believe play can be difficult for children with intellectual impairments who find it hard to understand that one object can be used as it was another one or that a person can play a different role from his or her own usual one. For many children with intellectual impairments, realistic objects within a thematic area are easier to use for reciprocal exchanges and role recognition, whereas costumes need the support of a reflective metacognitive thought and may be frightening to some of them.

Constructive play. With assembling toys, it is important to pay attention to the duration of play sequences, to avoid lack of interest and maintain the effect of surprise and willingness to continue. When toys are made of parts to be assembled, it is also important to pay attention to the complexity of the connection between them, because in most cases, these children can show difficulties in psychomotor abilities.

Furthermore, it could be hard for them to mentally represent the final result, and consequently, to maintain the attention until it is achieved.

Rule-based play and games. In this case, games must be relevant to the cognitive capacity of the player, particularly regarding reasoning, making hypotheses, deduction, and time of concentration required.

### 15.2.2 Roles of the Adults

The adults' role is a very important issue to support children with intellectual impairment with finding a form of autonomy in an emotionally secure environment. Adults help children to feel joyfulness in play whilst providing support as patient, enthusiastic partners, and very often, as models during role-play sequences with toys. They can also physically guide the children showing them concretely how to do things, how to use objects. Repetition in learning these practical aspects of play can be useful. Albeit the adults' presence aims to support the child's autonomy, it has been shown that play unfolds on a lower level, without an adult.

Adults should use a gentle, but determined attitude in playing with children, to support them in maintaining their attention, entering a ludic sequence, respect and share the roles and the rules, accept the influence of chance.

### 15.2.3 Physical Contexts for Play

For children with intellectual impairments, toys for practice play should be as most realistic as possible and should not be displayed as part of a group of toys rather in an isolated way, and shown one after the other, first, to turn on the child's interest and second, to activate exploratory behaviours (Bozena, 2007) and the pleasure of deep understanding. In the case of symbolic play, toys should be proposed inside a consistent play area with complementary objects (for example, a doll and a cradle to play 'mummy', or fruits, dishes and pots to play 'cooking').

## 15.3 Devices for the Play of Children with Hearing Impairments

When considering free play for children with hearing impairments, the question is: where does joyfulness of play, within the different play categories, come from?

The adults' choice of devices for play depends on the player's interests and tastes concerning a specific type of play activity, a kind of sensorial effect, or the pleasure for a specific kind of manipulations. Therefore, the choice also depends on the physical features of the toys to facilitate the child's play or make it particularly attractive for players with hearing impairments.

Play sequences are less frequent between children and adults when a hearing impairment impedes or makes it difficult to communicate. It is important to encourage play with suitable toys, consistent play areas, and well-informed adults and partners.

### 15.3.1 Toys or Games Features

**Practice play.** For all children, the interest towards toys for practice play comes from perceiving the effects of their actions: exploring, understanding cause-and-effect, discovering surprising effects, and enjoying a sense of mastery. At the same time, pleasure of internal control and social connection is there.

In the case of children with hearing impairment, the need to recur to alternative sensorial channels gives importance to toys with visual or tactile stimuli. Visual and tactile effects are especially attractive if they have an immediate significance and if they establish a direct relationship between a cause and an effect.

**Symbolic play.** As for any child, pleasure of symbolic play is to use things in unusual ways, to be another, express oneself and one's feelings, understand the social environment.

Different toys relative to various topics are required to put various and different roles in place. Realistic toys, in shapes and sizes, are proposed inside thematic areas to suggest complementary roles and support gestural communication. Toys are proposed within consistent ensembles to allow children to go forward in a scenario, for example, a doll and a cradle.

Symbolic play is very important in the case of children with hearing impairment, for it gives them the possibility to explore and use different modes of communication, to act different roles, thus taking the other's point of view and adopting various styles of interaction. The use of verbal language and/or the sign language can introduce interesting variables mainly in this type of play, primarily in the case of social play with peers.

**Constructive play.** No particular shrewdness is needed for supporting constructive play of children with hearing impairment. Nevertheless, this type of play requires a certain level of concentration on an activity over time, while these children usually do not like to stand and prefer to move around, sometimes without a real scope. This is one of the reasons to choose attractive toys for these children and support them to become concentrated and committed.

**Rule-based play and games.** The choice is made according to the children's cognitive abilities, and also to the communication abilities needed. The knowledge of the sign language also by the part of the other play companions can be useful in some cases, otherwise solutions should be found to favour communication exchanges, which are adequate to the play rules, so that possible difficulties in reasoning can be overcome too.

### 15.3.2 Roles of the Adults

As these children might not be able to communicate verbally their needs and desires or find it difficult to understand parental and societal rules, they can incur behavioural difficulties. Moreover, hearing parents of deaf children tend to be more directive and controlling in their interactions with their children (Vaccari & Marschark, 1997).

For all these reasons and to facilitate the players' autonomy, the roles of adults, their place, and the distance from children should be very carefully considered.

For example, to sit face-to-face is required to show toys, invite to play as suitable partners, and promote visual or physical interactions. Above all, within a group of children, adults must not forget to ascertain that all the verbal messages are understood by children with hearing impairments. However, when a play sequence between children is starting, adults should not interfere, leaving that communication between them develop as it is possible—through gestures, signs, or verbal cues—so that they can play freely.

### 15.3.3 Physical Contexts for Play

Toys are always in view, each one is placed inside a specific area according to the type of play they are able to favour.

Symbolic play areas must be organised in a logical and consistent manner for the following reasons:

- To facilitate imitation between children and between children and adults.
- To facilitate adults handing toys, children, as well as gestural and verbal communication.
- To allow children with hearing impairments to observe the other players, to encourage social interactions and joyfulness.
- To allow sharing of complementary roles within the same scenario and the development of that scenario; for example, by installing furniture, so that children play face-to-face instead than side-by-side (Thériault & Doyon, 1987).

## 15.4 Devices for the Play of Children with Visual Impairments

Where does joyfulness of play, within the different play categories, come from, in the case of children with visual impairments? Of course, also in this case, the choice of devices for play will depend on the player's interests and tastes, but also on the physical features of the toys that will be used.

Furthermore, these devices cannot be considered without regarding consistent play areas and well-informed adults.

### 15.4.1 Toys or Games Features

Practice play. Pleasure of the first play activities comes from sensorial effects, intellectual motivation in understanding the toys' functions, sense of mastery, and sharing communication about play sequences.

For children with visual impairment, toys must be steady, easy to manipulate with an overall shape, easily understandable by touch. Toys must be made in such a material that can be put inside the mouth for discovering dimensions, shape, and sensorial features. They should also be safe to make it possible an exploration without the eye's control.

Toys for children with visual impairment should give importance to sensorial stimuli other than visual: tactile, hearing, olfactory, kinaesthetic; in the case of sensorimotor play, they must offer diversity, and from time-to-time, unusual sensorial effects (vibration, magnetic effects) so as to arouse curiosity and surprise. They should be activated through precise gestures and offer precise feedback: this will implement children's pleasure and give them eagerness to succeed. Musical toys are particularly attractive when they give immediate and direct feedback to their activation.

Symbolic play. For children play roles as actors, toys must have realistic shapes and must be easy to understand by touch, to facilitate message transmission through objects. Thus, they cannot be too big for the children's hands. When using action figures, for example animals, they must be as realistic as possible to be picked out among others. Anyway, symbolic play should always be introduced by an adult who describes the main theme of play (for example, kitchen, seller, jungle animals, garage) to facilitate entering in a play.

Usually, pretend play is delayed in children with visual impairment with respect to typically developing ones (Lerner et al., 2015); only when they are around 6-9 years old, they will be able to attribute concrete objects a function different from the expected and normal one.

Constructive play. It is useful to propose toys whose elements or parts are not too light in term of weight, to reinforce the sensations of touch and to make the final constructions stand up and in a steady way. Links between these elements should be easy to make, for example, through magnetic or *Velcro* systems; auditory feedback when elements are correctly connected could be useful.

The pieces of puzzles should be well-designed and easily recognisable—better if they are in relief—so that children are willing to complete it; puzzles that are included within borders are preferable as children can better orient their actions and understand by themselves if they have terminated.

Rule-based play and games. Children with visual impairments, as all the other children, usually like to play many games with rules. Of course, in order to find great pleasure in playing and possibly winning boards, pawns and others pieces of the game should be explored by touch, or adapted to this purpose.

The case of colour-blind children should be carefully considered when planning a game with coloured material: some colours are confusing and can make the games hard to play, if not impossible; it is important to be careful with non-differentiated colours and to change them where possible.

What is of utmost importance, nevertheless, is that these children understand well the rules of the game, and above all, that they can ‘experience the rule’, which organises the players’ group around itself. Children with visual impairments can, in this way, experience the value of turn-taking, of decentralising their thoughts from themselves only, by sharing and subjecting to an indisputable rule and also to the chance. In this sense, if the cognitive challenge of the game is lower than expected is not a problem, because the pleasure of practicing the power of the rule is important in itself (Duflos, 1997).

#### **15.4.2 Roles of the Adults**

With any category of toys and games, adults help children find their autonomy, even if it has been demonstrated that without adults’ assistance, play unfolds at inferior levels. Adults can effectively also act as mediators between children with visual impairments and their companions, so that play can be facilitated, go on, and become joyful and exciting.

For example, in the case of constructive play, frequent feedback on how the construction is going on can be useful because these children find it hard to mentally represent a three-dimensional object to be built as well as the consequent steps to be done for finalising their project. To help children with visual impairments to understand the issues of three-dimensionality and of complex constructions, the best way is to invert the usual phases of constructive play, which are usually made of a building phase and a deconstruction phase (the relative importance of these phases varies depending on the competence and the age of the players). With children with visual impairments, the issue of the third dimension is more difficult, and it must be tested by starting with the second phase. By touching, in fact, the children can realise the size and the volume of the construction already finished. Then, by tearing it down, they come to understand the transition from the complex construction to the simple pieces that compose it. When they truly understand this, they can start to build by adopting a three-dimensional perspective.

#### **15.4.3 Physical Contexts for Play**

As children with visual impairments cannot mentally represent the space around them beyond their own body, toys and elements of games must be proposed inside well-demarcated areas to be easy to catch, find, take up again after having been

thrown or located in a specific position, and so on. The toys must not ‘disappear’ far from the players, irrespective to the type of play they belong or to the child’s age; auditory feedbacks whenever possible should be used and added.

For pretending play and role-play, toys must be arranged inside thematic areas and consistent ensembles. It is very useful to propose complementary objects on the same theme to support exchange between partners, go forward in the theme, and explore several roles, expressions, and behaviours.

## 15.5 Devices for the Play of Children with Communication Disorders

When a child has communication disorders, all the types of play can be involved and deprived if not properly and specially prepared and supported. Play is, in fact, made of communication and is communication in itself. Where does joyfulness come from in these cases? Once again, preferences and tastes of the child should be studied, as well as the toys’ features and the play context organisation.

### 15.5.1 Toys or Games Features

Practice play. Usually, children with communication disorders like very much to enjoy body movement play and are interested in toys that facilitate and intensify these kinds of play. Consequently, they would like toys that support gross motor skills, like balls, slides, and all the devices that can be found at the playground. According to Fontaine (2005), communication between children is intense and implemented during play on structures for gross motors skills than with small toys.

Symbolic play. Children with communications disorders do not like at all to experience situations in which their difficulties can be revealed to their playmates, and consequently, highlighted. Thus, during role-playing, they do not act as protagonists, but prefer to be ‘followers’. On the other hand, they need to express their emotions and find the right words or modes to tell the world how they feel. While pretending play can give them the possibility to enlarge and sustain their knowledge of the semantic field of words, including its metaphorical aspects, playing roles can be interesting for letting them to imagine themselves in situations and roles different from the usual ones, thus understanding and using new words, new concepts, new ways of communicating: this is the case of acting in roles and also useful for them; puppets, puppetry, disguises, figures, toys based on cartoons, play dough, etc.

When these children use systems of Alternative Augmentative Communication (AAC), adaptations should be made to toys and play contexts to give them the possibility to take part actively to the play situation.

Constructive play. Usually, there is no specific attention to adopt to constructive play in the case of children with communication disorders.

Rule-based play and games. This type of play should usually be easy to play, depending on the intellectual level of the players. The main goal is to support children to have the possibility to win this type of games, as they are often losers with them; thus, the role of chance should be taken into consideration, and whenever possible, controlled. Obviously, to support play for the sake of play, the games must not be directly addressed to the precise children's deficit.

It is important also to have some parts of the board games translated into written words or into symbols if the child uses AAC codes.

### **15.5.2 Roles of the Adults**

The main role of adults, when they act as playmates of children with communication disorders, is to add language to all the play sequences, to let them better understand the play rules, to support them in expressing their feelings and ideas, as well as to facilitate the play relationships, by decoding their peers' proposals and also by letting peers understanding their modalities of communication. Depending on the type of impairment, verbal language can be accompanied by gestures, or written words or symbols.

### **15.5.3 Physical Contexts for Play**

Toys are installed inside specific areas of the environment where play activities will take place. A role-play area is installed to enable children to play face-to-face, to support communication, and to facilitate complementary roles. Many devices and materials are prepared and made available as a support for AAC users; they can be created on the basis of the play activity or of a player's specific communication needs, or made available as general-purpose support tools. In some cases, typical functioning children should be introduced to the knowledge and use of these particular communication modes.

## **15.6 Devices for the Play of Children with Physical Impairments**

As for any other child, also for children with physical impairments joyfulness of play comes from the satisfaction of the player's interest and tastes. Therefore, the choice of toys depends on their physical features, and the identification of the play activity is related to the specific preferences of the child as well as on his or her abilities and competences. Due to their difficulties in movement, which often show up as

slowness, fatigue, and inaccuracy, time of play activities and sequences is one of the most important issues to be addressed.

It should not be forgotten that physical impairments are often associated with other kinds of impairments, such as language and communication disorders, intellectual and/or sensorial impairments. In these cases, the access to play activities becomes even more difficult and complex.

### 15.6.1 Toys or Games Features

All the toys' categories can be proposed to children with physical impairments, but it is essential to take into account first the movements that are necessary to use the toys; it should be considered; in particular:

- a. how the toy can be used: with which parts of the body, if it is possible to use it by means of other parts of the body;
- b. which kinds of action are needed (grasping, pulling, pushing, inserting, plugging, sliding, picking up, combining, and so on);
- c. which precision and coordination of movements are required and also to what extent strength should be adopted.

Modification to traditional and mainstream toys should be considered by substituting the activation systems, introducing handles, buttons, grasping solutions, and other possible devices, so that the toy can be easier used by the child; these modifications are, of course, different from child to child, because they are created or adopted on his or her own movement abilities. More complex modifications—due in more complex movement impairments—very often include the use of a personal computer as a mean to control concrete objects on the environment.

Second, often children with physical impairments have less perseverance in play situation as well as in other daily activities due to the difficulties they meet and the time they require to complete a task: for this reason, short play sessions are preferable, so that they can maintain their interest and commitment.

Third, it is not infrequent that these children are sitting in wheelchairs or use other supports, and this fact should be taken into account also to choose toys and play activities: a wheelchair imposes some distance from the floor, for example, or requires a suitable height of tables or other work surfaces, so that they can have a complete visual control on the toy or game and can easily reach and use them as they want.

Practice play. Toys for this type of play are solid, easy to hold and to be used, steady for sensorimotor and gross motor skills play. They are of good quality for lighting, musical, tactile, and other effects. The ludic springs are well-defined and easy-to-produce even if physical possibilities are reduced in terms of strength and gestural

precision. The use of these toys should also be carefully considered in relation to the children's motor devices to facilitate play and make it as safe as possible.

Outdoors play activities should also be included, because kinaesthetic discovering is important to create awareness of one's own body as a whole.

Symbolic play. Toys are realistic and easy to use; they allow children to take on roles and enter situations to experiment in play what they cannot do and live in their real life. Symbolic play is the way for children with physical impairments to express their emotional life, fears, dreams, and satisfactions. Dolls and other traditional toys for symbolic play (puppets, theatre characters, miniature objects, etc.) can be chosen or modified for being easy to use. Costumes and disguises should also include wheelchairs and other movement supports to give these children the possibility to fully take part in play sessions together with their peers.

Constructive play. To allow these children to play with construction toys, it is essential to choose them according to the size of pieces and their weight, nor too small nor too heavy. The most important is to consider carefully the mechanism to assemble the elements; magnetic or *Velcro* links are preferable, so that construction play becomes possible even in case of imprecise gestures or jerky movements. In some cases, mainstream toys can be modified, so that they can be manipulated and used: handles and various kinds of systems to take the pieces and assemble or disassemble them can be adopted.

Rule-based play and games. When rule-based play is based on movement, only seldom it is proposed to these children, due to their physical impairment, even if they can take place in the game by playing different roles within the game; some specific types of games have been invented—the most famous one is 'baskin'—and are currently being disseminated. Board games can be difficult to play due to their form and dimension, but also in this case, some changes can be undertaken to enlarge the accessibility of the material. Pawns are easy to grasp with sometimes magnetic bases, while bigger dice are easy to throw and control or can be replaced with other devices.

Play time is shortened when possible, mainly for decreasing the fatigue due to a prolonged motor engagement; in fact, tiredness related to difficulties in controlling movements may adversely affect the motivation and the quality of the involvement in the game.

### 15.6.2 Roles of the Adults

Children with physical impairments are more dependent on the others' supports in their life, and this is what happens also in playing. As play companions, adults should let them take their time, without taking their place; they should wait for children to play and have the opportunity to give their autonomous suggestions to go on in playing, for example, by transforming toy functions or game rules.

The adults' role is also to become an effective play mediator, so that these children's peers can be supported in creating fruitful and joyful interactions; sometimes, only some tricks are needed to let play activities start and go on in a satisfactory way. When other kinds of impairments are associated to the physical one, the role of the adults can be even more relevant, as they have to help peers in interpreting, communicating, acting as facilitators or scaffolders in the best way.

### 15.6.3 Physical Contexts of Playing

Toys and games are carefully selected, according to an analysis of their components; toys in many cases should be modified and made accessible.

Space is one of the most important aspects of the play context in this case: play environments should be large enough to facilitate children's movement, to let them move autonomously; their use of motor devices should be carefully considered, both as to space dimensions and as to the height and accessibility of work surfaces.

Furthermore, appropriate and comfortable play situations should be prepared, as a child sitting in a wheelchair can be in a higher or lower position with respect to his or her peers, and, according to the type of play, this may require the adoption of certain logistic measures, so that gazes can be exchanged, the materials for playing can be available, and so on.

## 15.7 Devices for the Play of Children with Autism Spectrum Disorders

Any category of play can encompass supports of play, depending on the players' interests and developmental levels. For children with ASD, the type and degree of impairment—which explicitly matter human relationships, symbolic functions, and play development—can vary widely. Furthermore, intellectual disability can be associated to other impairments, as well as specific extraordinary abilities—the so-called 'islets of abilities' or 'splinter skills'.

All these aspects should be considered before proposing toys or games to these children, who in some cases, actually do not seem to enjoy play or wish to be involved in.

### 15.7.1 Toys or Games Features

Within all toys' or games' categories, objects may not be replaced every day. For the players' emotional wellbeing, a balance has to be found between well-known toys and games, and new ones. In order to get a kind of continuity and logical evolution within

the play activities, choice of toys and games varies from already known functionalities to different ones: this is to make sure that games have common traits with functions that evolve from one to the other.

Practice play. In most cases, play with objects consists of two steps: the first consists of an exploration of the overall shape of objects without paying attention to their use, while only later an understanding of the functionalities of these objects takes place.

Children with ASD are not attracted by the overall shape of the objects, as they are more interested by some specific aspects, or small details. When proposing toys to attract their attention, weight is an interesting element due to proprioceptive sensations and the body consciousness; texture of the object is also important, as well as sensorial feedback it can produce (visual—mainly light—auditory). Sometimes, this feedback is only provoked by the particular way adopted by the child in using the toy. The cause-and-effect relationship is also a positive element of toys for children with ASD, if it is easy to perceive and understand.

Some toys for practice play are particularly interesting as they can initiate social connection, for example, by throwing, catching, giving, and giving back.

Symbolic play. Role-playing is particularly tricky for these children who often feel challenged by representing and changing roles, adopting the point of view of other persons, acting as if they were other persons.

This play activity is then initiated by adults who help in simplifying roles and activities and break it down into subsequent steps, each of them corresponding to one specific isolated action with objects (for example, interpreting ‘being a musician’ only by playing drums).

For symbolic play with figurines and miniatures, isolated toys are more appropriate than ensembles to support a precise play activity: for example, playing with a car and moving it forward instead of managing a whole garage. Once effective play sessions with one object are obtained, it becomes possible to use toys that can be related to the same topic to expand the children’s play.

Constructive play. For children with ASD, adults propose games that have a clear goal and end; they encourage players by showing them what it is possible to do with this type of toys, and how. They choose the toys that can be used for a short play time, so that children finish the activity quickly and feel successful.

Assembling games are changed from time to time to make play evolve according to the different types of connections between the elements. In some cases, children with ASD can become and reveal experts in those types of toys and spend a lot of time in assembling small elements not always according to a clear and recognisable project of construction. Putting together pieces, completing a puzzle as quickly as possible, repeating for the sake of repetition may seem, in these cases, the only scope of their play. More complex toys in these cases can be proposed to interrupt the sterile repetition of gestures and activities, if this reiteration is perceived as devoid of joy.

Rule-based play and games. Very often, rules are simplified and games shortened for these children, while instructions are made as clear as possible. Games that are more appreciated by children with ASD are association games where the ludic spring is given by activities of comparison and differentiation.

Children with ASD need simple rules because the social situation is so challenging for them that it is essential that rules are very easy to understand for playing with joyfulness. Rules can be contemporarily a problem and an advantage for children with ASD: in fact, they facilitate understanding of the play activity, because they put clear limits to control the situation; on the other hand, they highlight the tendency of these children to act in a well-regulated and repetitive manner and they prevent them from the adoption of flexible shortcuts during the activity. Then, there is the possibility that they appreciate this type of toys and games; this could be a way, for them, to face human relationships.

### 15.7.2 Roles of the Adults

Adults whom the children know well are essential, so that they are not frightened by the social context. Adults should act as play partners or models, and usually, they propose the play sequences.

They can initiate role-playing and encourage it by reminding the children stories and tales they already know and proposing to interpret them. In the case of construction play, the adults show examples of how to continue the construction and avoid the children with ASD to repeat always the same sequence—for example, asking them to do something new, or to do it in a different way—or propose the children to explain which is their project.

In rule-based games, one of the roles of adults is to simplify the play situation to avoid or minimise frustrations; for example, within games such as snakes and ladders, by taking the dice off so that each player's turn is respected (Hogan, 1997).

### 15.7.3 Physical Contexts for Play

For emotional comfort and wellbeing, the number of toys presented at the same time is reduced to two or three, and the overall environment is quiet, without sudden noise or changes in lighting. As social relations with non-familiar people are not easy for these children, adults promote parallel play between players by putting in place more thematic play areas and supporting children with ASD, so that they can imitate and play on their own, but alongside other children.

## 15.8 Devices for the Play of Children with Multiple Disabilities

To support children with multiple disabilities in play, adults use to present toys or mainstream objects as supports of play, depending on the players' levels, interests, and tastes. Play is an activity that involves the child's whole personality: emotional, intellectual, social, physical. The free play and the autonomy of the player remain concepts that keep their meaning irrespective to the importance of disability. It is the reason why play is so important for children with multiple disabilities.

As multiple disabilities always concern sensorial impairment, often the focus of the play activity is on sensorimotor toys to support the sensorial and kinaesthetic experiences; it is anyway possible to propose also toys related to other types of play, mainly with the support of an adult.

With respect to the type of impairments these children have, possible additional supports can be considered: for example, the need to adopt codes of AAC, to recur to specialised materials and toys or to on-purpose modification of mainstream toys, to choose toys that can offer precise sensorial stimuli, and so on.

### 15.8.1 Toys or Games Features

Practice play. Toys for play are chosen on the basis of the child's possibilities to explore them; objects that can offer multisensorial and rich proprioceptive experience should be preferred. Smaller toys are proposed where sensorial stimuli they offer are identifiable and rely on proprioceptive sensorial abilities, such as vibration.

Symbolic play. Depending on the players' capabilities, role-play sequences can be developed, mainly with realistic toys or miniature, as they help to play precise roles and to represent specific real situations.

Constructive play. The presence of a possible visual impairment introduces many limits and constraints to the type of toys that can be used for constructive play; furthermore, the possibility to develop a project and to mentally represent the final result of a construction can be reduced, mainly due to multiple sensorial impairments. Thus, careful attention should be dedicated during the selection phase, as to the tactile and auditory aspects of the toys. Sizeable toys with assembling systems must be easy to use without requiring strength.

Rule-based play and games. They should be consistent with the players' competences, their ability to concentrate, and their interests. With respect to the different types of sensorial impairments that are involved in the multiple disability, adapted or alternative board games can be used, which recur to special communication systems or to specific devices.

### 15.8.2 Roles of the Adults

Adults must be convinced that play is essential for children with multiple disabilities too. A kind of empathy is necessary, with verbalisation of what is going to happen, using physical contacts, for example. Explaining, giving meaning, encouraging, congratulating, and being a patient and delighted partner are the main roles of adults in play with children with multiple disabilities. They also should pay attention to give children enough time to play.

### 15.8.3 Physical Contexts of Play

The physical context in these cases should be particularly studied and arranged to avoid any risk of injury, and at the same time, to motivate children with multiple disabilities to engage in play activities even if they can at first appear noisy, disturbing, and challenging.

According to the different types of sensorial impairments that are present, the context should be well-defined, protected, sometimes with clear and identifiable boundaries. In some cases, the room itself becomes a play occasion or object, as sensorial stimuli can be offered by the floor, or the ceiling. To maintain interest in play, it is essential to regularly change toys and games while maintaining the same or nearly the same ludic springs.

In a socially inclusive context, within a free play sequence, it is possible to make children with multiple disabilities meet typically developing peers, on a condition that play areas are organised with a sensorial quiet atmosphere for what concerns 'sensorial proximity', sensorial contacts, and ludic relationships (Hulsege & Verheul, 1989).

## 15.9 Conclusion

The action of playing can be defined as a subtle alchemy brought about by the coming together of a subject, an object, circumstances, and others subjects. The relationship between a human being and his or her environment is always or most always organised around a material element, a sensorial and cognitive artefact that leads to make activities. Paradoxically, this relationship is at the core of what makes a human's thinking independent from our abilities, competences, or age.

Every human action is guided by the interaction with a physical element; playing, which in essence is an activity, needs a mediating object to allow the child to express himself or herself.

While playing, the inclusion of children with disabilities is achieved by providing them with mainstream toys selected according to their capacities: first, to play with

others and second, to help parents to give the childhood more importance than to the disability.

Unfortunately, the complexity of toys, depending on their cultural and market aspects, and on what they represent from one generation to the next leads adults to consider them as inadequate for the capacities of children with disabilities. It is, hence, essential to provide mainstream adequate toys accompanied by empathic helpers who are able to facilitate the utmost important interactions between the player and a toy, so that the player's interest can be triggered.

Toys are the first thing adults have in mind when they think to give a child a very appreciated present, or simply a tool to play. But, toys are never neutral, and there is not a toy that suits everyone; differences related to the chronological age, to personal attitudes, to gender, to familiar and cultural traditions, to various ways of life should be considered when choosing a toy. There are toys for indoor and for outdoor spaces, for playing alone or with the peers or even with the adults, for playing together or for winning over the others, and there are toys that favour different types of play, as this chapter has tried to demonstrate. Furthermore, the world around the child is full of objects that can become toys, depending on the curiosity, the imagination, the situation, the play companions.

Nevertheless, there are some other characteristics that should be taken into serious consideration, especially when the child who receives or is offered the toy has some kind of impairment: its usability and accessibility. Does it meet the child's possibilities to interact with it, to enjoy it? Does it respond to the child's preferences and abilities? Does it help the child to overcome his or her difficulties or limitations, or on the contrary does it pose additional limitations? Does it create discouragement because it is difficult or impossible to be used by the child or because it is too simple in comparison with the child's possibilities and expectations? Is it attractive enough to potentially augment the opportunity to play with friends? Is it challenging enough to give the child the opportunity to explore new, more complex types of play?

Adults—parents, teachers, professionals—might need advice when choosing the right toy for these children; they should be accompanied to merge in the most fruitful way the child's and the toy's characteristics in the perspective of creating the best opportunity to have fun and to fully enjoy play. They also would know more about how to play with these children, how to support motivation and engagement even when tiredness, fatigue, indifference, or frustration come forward, and also how to create the more promising contexts for playing, especially inclusive ones.

The chapter has presented some hints on this topic, and should be considered, in the authors' intentions, as a path to make the first steps, to proceed then towards more complex and exhaustive routes in the near future.

## References

- Albaret, J. M., & Zanone, P. G. (2000). Une approche dynamique du trouble d'acquisition de la coordination. *Evolutions Psychomotrices, Approche Neurologique des Apprentissages chez l'Enfant*, 12(59), 126-136.
- Aufauvre, M. R. (1980). *Apprendre à jouer, apprendre à vivre* [Learning to play, learning to live]. Paris, F: Delachaux et Niestlé.
- Barker, D. H., Quittner, A. L., Fink, N. E., & Eisenberg, L. S. (2009). Predicting behavior problems in deaf and hearing children: The influences of language, attention, and parent-child communication, *Developmental Psychopathology*, 21(2), 373-392.
- Bozена, M. (2007). *Exploratory Play and Cognitive Activity, Several Perspectives on Children's Play*. Antwerp, B: Garant.
- Bruner, J. (1991). *Le développement de l'enfant, savoir-faire, savoir dire* [Child development, knowing to do, knowing to say], Paris, F: Puf.
- Caffari-Viallon, R. (1988). *Pour que les enfants jouent* [Let the children play]. Lausanne, CH: EESP.
- Château, J. (1985). *L'enfant et le jeu* [Child and play]. Paris, F: éditions Du Scarabée.
- Cornelli, S., & Sanderson, R. (2010). *Towards a New Measure of Playfulness: The Capacity to Fully and Freely Engage in Play*. Chicago, IL, Loyola University. Retrieved from: [http://ecommons.luc.edu/luc\\_diss/232](http://ecommons.luc.edu/luc_diss/232).
- Csikszentmihályi, M. (1990). *Flow: the Psychology of Optimal experience*. New York, NY: Harper & Row.
- Delaye, L., Dufour, S., Perino, O., & Sanches, C. (2007). *Guide Handilud*. Lyon, F: FM2)-ed.
- Duflos, C. (1997). *Jouer et philosopher* [To play and to philosophise]. Paris, F: Presses Universitaires de France.
- European Parliament and Council (2009). Directive 2009/48/EC on the Safety of Toys. *Official Journal of the European Union*, June the 18<sup>th</sup>.
- Fontaine, A. M. (2005). Écologie développementale des premières interactions entre enfants: effet des matériels de jeu [Developmental ecology of the first interaction among children: effects of the play materials]. *Enfance*, 2(57), 137-154.
- Garon, D. (2002). *Le Système ESAR*. Québec, CDN: Le cercle de la librairie.
- Garvey, C. (1990). *Play*. Cambridge, MA: Harvard University Press.
- Gillet, P. (2013). *Neuropsychologie de l'autisme chez l'enfant* [Neuropsychology of autism in childhood]. Bruxelles, B: De Boeck Solal.
- Goleman, D. (1997). *L'intelligence émotionnelle* [Emotional intelligence]. Paris, F: R. Laffont.
- Gutton, P. (1972). *Le jeu de l'enfant* [The play of the child]. Paris, F: Larousse université.
- Hogan, K. (1997). *Non Verbal Thinking, Communication, Imitation, and Play Skills from a Developmental Perspective*. Chapel Hill, NC: North Carolina University, division TEACCH.
- Huizinga, J. (1955). *Homo Ludens, essai sur la fonction sociale du jeu*. Paris, F: Gallimard.
- Hulsegge, J., & Verheul, A. (1989). *Snoezelen, un autre monde* [Snoezelen, another world]. Namur (B): Editions Erasme.
- Jambor, T., & Van Gils, J. (2007). *Several Perspectives on Children's Play*. Antwerp, B: Garant.
- Lerner, R. M., Liben, L. S., & Mueller, U. (2015). *Handbook of Child Psychology and Developmental Science, Volume 2, Cognitive Processes, 7th Edition*. New York, NY: Wiley.
- Ludoscopes (1996-2009). *Sélections annuelles de jeux et jouets analysés et commentés* [Annual selections of play and toys analysis and reviews]. Lyon, F: Ass Quai des Ludes.
- Michelet, A. (1972). *Les outils de l'enfance T. 1 et 2* [The tools of childhood]. Paris, F: Delachaux et Niestlé.
- Perino, O. et al.. (2011). *C.O.L. Classement des objets ludiques* [A classification of ludic objects]. Lyon, F: FM2)-ed.

- Perino, O. (2014). *Des espaces pour jouer, pourquoi les concevoir et comment les analyser* [Spaces for playing, why to design them and how to analyse them]. Toulouse, F: Eres éditions.
- Piaget, J. (1945). *La formation du symbole chez l'enfant* [Play, dreams and imitation in childhood]. Neuchâtel, CH: Delachaux et Niestlé.
- Premack, D., & Premack, A. (2003). *Le bébé, le singe et l'homme* [Child, ape and man]. Paris, F: Odile Jacob.
- Rosenfeld, I. (1992). *La conscience activité principale du cerveau* [Consciousness, principal activity of the brain]. Paris, F: Flammarion.
- Schoggen, P. (1989). *Behavior Settings: A Revision and extension of Roger G. Barker's Ecological Psychology*. Stanford, CA: Stanford University Press.
- Skalická, M. (2000). *How Can We Support Visual Functioning of Young Children with Multiple Impairment?* Cracow: International Council for Education of People with Visual Impairment. Retrieved from: <http://www.icevi-europe.org/cracow2000/proceedings/index.html>.
- Stambak, M., & Sinclair, H. (1990). *Les jeux de fiction entre enfants de 3 ans* [Pretend play in three-year-old children]. Paris, F: Presses Universitaires de France.
- Thierault, J., & Doyon, M. (1987). *Projet d'analyse du matériel éducatif des classes maternelles* [A project to analyse educational materials at the kindergarten]. Québec, CDN: Université de Chicoutimi.
- Vaccari, C., & Marschark, M. (1997). Communication between parents and deaf children: implications for social-emotional development. *The Journal of Child Psychology, Psychiatry*, 38(7), 793-801.
- Vygotskij, L. S. (2002). Play and its role in the mental development of the child. *Psychology and Marxism*, internet archive [1933].
- Vygotskij, L. S., & Cole, M. (1978). *Mind in Society. The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Winnicott, D. W. (1958). The Capacity to be Alone. *International Journal Psycho-Analysis*, 39, 416-420.
- Winnicott, D. W. (1975). *Jeu et réalité* [Play and reality]. Paris, F: Gallimard.