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From Motor Skills and Coordination to Sensitivity and Empathy. Ballroom Dancing as a Tool for Harmonizing Children's Development

Od sprawności i koordynacji do wrażliwości i empatii. Taniec towarzyski jako narzędzie harmonizowania rozwoju dzieci

Abstract: The author indicates the multidimensionality of the understanding harmony in the development of preschool and early school children. It presents the issues of motor skills, sensitivity and empathy, and ballroom dancing as a tool for harmonizing children's development. It presents the results of research carried out by a group of trainers working with children learning ballroom dancing. Analyzing the research results, she indicates that ballroom dancing, due to its specificity, affects development in various spheres: physical and movement, emotional, motivational, social, cognitive, as well as musical and aesthetic activity. Relationships between various developmental spheres stimulated by dance activity can support harmony in children's development.

Keywords: harmony in development; ballroom dancing; motor skills; coordination; sensitivity; empathy

Abstrakt: Autorka wskazuje wielowymiarowość rozumienia harmonii w rozwoju dzieci w wieku przedszkolnym i wczesnoszkolnym. Przedstawia problematykę sprawności motorycznej, wrażliwości i empatii oraz tańca towarzyskiego jako narzędzia harmonizowania rozwoju dzieci. Przedstawia wyniki badań zrealizowanych w grupie trenerów pracujących z dziećmi uczącymi się tańca towarzyskiego. Analizując wyniki badań, wskazuje, że taniec towarzyski ze względu na swoją specyfikę oddziałuje na rozwój w różnych sferach: fizyczno-ruchowej, emocjonalnej, motywacyjnej, społecznej, poznawczej oraz w zakresie aktywności muzycznej i estetycznej. Relacje między różnymi sferami rozwojowymi stymulowane aktywnością taneczną mogą wspomagać harmonię w rozwoju dzieci.

Słowa kluczowe: harmonia w rozwoju; taniec towarzyski; sprawność; koordynacja; wrażliwość; empatia

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INTRODUCTION

Physical fitness and motor coordination are the conditions for human functioning in the surrounding world. In a situation when their level is good and basic physical skills such as walking, running, catching, etc. do not pose a problem, they are less often the subject of consideration, but when, for some reason, difficulties in performing them appear, the problem becomes in the field of interest.

Sensitivity and empathy, on the other hand, are prerequisites for functioning in the social world. They form the foundation for the development of learning and speech skills as well as for building interpersonal relationships.

Motor skills and coordination, as well as empathy and sensitivity, gradually develop in children from birth as they undertake various activities and establish contacts. If properly stimulated, they lead to harmonious development. In the text below, I put forward the thesis that dance, or more precisely ballroom dancing, can be a tool for harmonious development. I also mention the results of research conducted among educators and dance trainers working in children's groups, who, by observing their students, can indicate areas of changes taking place.

In the structure of the text, I distinguish several threads that are important from the perspective of the problem discussed, and their subsequent presentation connects the issues indicated in the title of the text. I start with the ways of understanding harmony in order to take a broader look at the issue of harmony in a child's development. Then, referring to the literature, I present some issues regarding three areas of issues: motor skills and coordination, empathy and sensitivity, and ballroom dancing. The last part of the text contains a presentation of survey research conducted on the importance of ballroom dancing as a tool for harmonizing children's development, as well as the results and conclusions obtained.

WAYS OF UNDERSTANDING HARMONY

"Harmony", according to the dictionary of foreign words (Tokarski, 1980, p. 268), is "compliance, mutual complementation or proper proportions", and applies to many fields of knowledge, including music, mathematics, ethics, and visual arts. Harmony also determines the way chords are combined and constructed in a piece of music. The Polish language dictionary also indicates several meanings of the term "harmony". In Greek mythology, it is the personification of order and harmony; it can also simply mean consent, mutual complementation, proper proportions. In music, it means a method of combining and building chords in a musical piece or a branch of music theory dealing with the principles of chord construction and their consequences. It is also a popular name of a musical instrument (www1).

However, this concept also refers to human activity and development, and it is given different meaning and status in different cultures. "Meditation", for example, derived from the philosophy of the broadly understood East, refers to "harmony" as its source. The first records mentioning its existence come from India and were created 3,000 years ago, and today this technique is practiced by people all over the world looking for a way to introduce a balance between body and mind into their lives to achieve physical and mental health.

Hygge, the Danish art of happiness, philosophy of life and joy, also refers to the "harmony" that Danes want to create in their home by taking care of good emotions and company. For them, this slogan means: friendship, community, sense of security, warmth, comfort and the ability to enjoy the moment. Special attention to human well-being thanks to the created concepts of organizing external space and social space as significantly influencing internal comfort and joy of life is also present in other cultural circles and in other regions of the world.

For example, in Chinese culture, "harmony" occurs under the concept of *yinyang* as the unifying force of two elements of the nature of the universe, complementing each other and creating an inseparable whole. Harmony is about striving to maintain the balance between the *yinyang* elements. One of the ways to achieve harmony understood in this way is the philosophy of *feng shui*. The Chinese believe that internal harmony does not exist without harmony in space, which for them is the philosophy of *feng shui*. This interesting message of transforming external harmony into internal harmony, in a continuous cycle of mutual influence, also brings interesting inspirations in the context of education.

Harmony is an issue considered in psychology, especially when the subject of consideration is human development. Psychologists indicate that the best context for the development of a child's potential is possible when all areas develop harmoniously. This means that the pace, dynamics and rhythm of developmental changes in the cognitive, emotional, socio-moral and physical-motor spheres are consistent, run in parallel, and are undisturbed. Disturbances in the rhythm and pace of changes in various spheres lead to disharmony and difficulties in various areas of functioning. Research conducted by Chrzanowska (cited in: Przetacznik-Gierowska & Tyszkowa, 1996, pp. 228–229) shows that there are relationships between disharmonies in development and behavioral disorders. As Przetacznik-Gierowska and Tyszkowa write,

> disharmonies between the delayed motor and social sphere and the normal, or even faster, development of speech and manipulative activities in play and task situations (...) can be seen in children who are shy and apprehensive, not very independent and emotionally overly dependent on mothers. However, children who were characterized by a different disharmony – delayed speech development in relation to other areas – were characterized by hyperactivity and a tendency to outbursts of anger (1996, p. 229).

From the perspective of pedagogy, it is important to consider the issue of developmental harmony and disharmony in the context of educational and didactic work, which allows, on the one hand, to maximize and optimize development, and, on the other hand, to eliminate difficulties and organize therapeutic work, ultimately enabling good functioning in everyday, educational, peer and other situations, promoting well-being.

For educators, the indicated ways of understanding harmony in development are particularly important as a direction for searching for opportunities to stimulate individual development spheres, mainly by organizing activities that will make the rhythm, dynamics and pace of development in various areas consistent. It would be good if the impact on the physical-motor sphere (coordination, motor skills) was combined with stimulation, cognitive stimulation (thinking, attention, memory) and supporting the development of sensitivity, empathy and building social relationships.

MOTOR SKILLS AND COORDINATION

Human efficiency includes motor skills and physical fitness. Their development is the result of ontogenetic development and is expressed in human motor skills (Gilewicz, 1994). Among the features of motor skills, researchers in the theory of physical education indicate strength, endurance, speed and power (also known as jumping ability). In addition to those indicated, the following also include flexibility (as the mobility of body sections in individual joints), motor coordination (performing complex movements in space, switching from one motor task to another and solving new, unexpected motor tasks) and dexterity (performing a specific task movement quickly, smoothly and economically). The possibilities of developing them depend on age, gender, predispositions resulting from body structure, fitness predispositions and motor skills, i.e. a person's speed of learning new skills while making a few mistakes (at the acquisition stage) (Czyż, 2013, p. 25). Motor skills are genetic, unlike motor skills, which are the result of a motor learning process.

Children's pace of development of motor skills is not regular and may vary depending on gender, due to the nature of games and physical activity undertaken (Wołoszynowa, 1986, p. 543). However, the basic condition for achieving physical and motor fitness is motor activity and learning. But physical activity is important not only because of achieving motor skills. Considered at the neuronal level, it shows inextricable connections between the development of human motor skills and the development of his learning and thinking (Hannaford, 1995, p. 18, 24). What can be said is that the more a person moves, especially in childhood, the better he develops intellectually. This is due to the continuous expansion of neuronal networks and the gradual myelination of nerve cells as a result of repeated activation of neurons (thanks to the activities performed). Myelin speeds up the impulse and thus increases the pace

of tasks performed. What can be said is that the more active a person is, the more he experiences, the more neural networks are created and the more complex problems he can solve. To some extent, humans design their own nervous system. The use of neural networks introduces changes in the learning process (Żylińska, 2013, pp. 32–33).

Children are excellent observers and imitators. They model the movements of adults in the way they walk, talk, gesture and other forms of activity. This is important information from the perspective of a dance coach, because thanks to the ability to imitate movements, children are able to master complex sequences of movements related to dance technique, choreography and emotional expression from an early age. At the same time, stimulation of the development of neural networks thanks to the exercises in the dance learning program becomes a tool for harmonizing various development spheres.

SENSITIVITY AND EMPATHY

Mimetism (the ability to imitate) is also an important tool for developing socio-emotional sensitivity. Research has shown that mimetism is a social glue (Blackmore, 2002, pp. 26–27). People tend to involuntarily imitate various reactions and behaviors of others they are around, such as gestures, tone of voice, and speed of speaking. Performing the same gestures promotes sympathy, facilitates empathy, strengthens interpersonal bonds, and enables understanding of others and oneself. Children learn this through role play.

The phenomenon of transferring emotions, known from various everyday situations, is sometimes called emotional contagion. Everyone has experienced "contagion" of yawning, laughing, emotion or crying from others. This is a typically human feature and indicates species affiliation. The term "emotional consonance" has been used in the literature for years (Olechnowicz, 1969, p. 9). It is important because it enables continuous, even attention between people in contact with each other. This phenomenon is called "joint attention" (Schaffer, 2006, p. 327), which is crucial for children's learning. The ability to resonate emotionally is innate. However, in order for it to emerge and develop, it must be awakened. The first experiences take place in the family, in contact with the mother. In situations where children are deprived of the "school of feelings", they cannot observe human faces expressing various emotions, they do not experience tender contact, interest, and empathy of an adult caregiver, and they may become incapable of emotional exchange with another person.[1]

[1] Research on the development of pupils from former orphanages revealed the so-called an orphan disease as a result of being deprived of the ability to experience feelings. Depriving children of the emotional context of development also leads to disruptions in physical development, and in extreme cases it may lead to death. As Zimbardo and Ruch write, "in 1915, a physician at Johns Hopkins Hospital reported that despite proper physical care, 90 percent of infants admitted to

The ability to attune and reflect is also important from the perspective of everyday movements, activities and behaviors carried out among other members of a given community. Facial expressions, glances, gestures and ways of behaving observed in others play yet another role. They lead to an internal belief about what we can expect in the further course of events. From birth, a child learns to notice signals indicating what a moving person is doing or intending to do. Without intuitive certainty about what a given situation will bring next, human coexistence would be very difficult in various situations.

Impressions about another person also allow for predictions that go far beyond the range of movements he or she makes. This is possible because people live in a common, interpersonal area of meaning that allows intuitive understanding of others' feelings and behaviors. This ability to acquire knowledge about intuitive ideas, allowing for building trust, beliefs about the other person's feelings and intentions is called the ability to create a theory of mind (Białecka-Pikul, 2002, p. 14).

The ability to recognize the intentions of others based on even small signals has its neural basis and creates a system of so-called mirror neurons (Przybysz, 2009, p. 141). These are cells that become active when we observe others or empathize with someone else performing a specific action. In other words, observing the actions of others causes the observer to trigger exactly the same program of action as a neurobiological resonance, even though the action itself does not occur (Bauer, 2008, p. 21). They activate their own motor pattern in the observer's brain, exactly the same as that which would be responsible for a given activity if the observer were to perform it personally.

Without mirror neurons, there is no contact, spontaneity and emotional understanding. It would also be difficult to develop sensitivity and empathy. Situations of close contact with another person with the simultaneous opportunity (and need) to observe what the other person is doing, what he or she intends, what he or she expresses with his or her movement, are offered by ballroom dancing.

BALLROOM DANCING

Dance is one of the oldest forms of art and human cultural activity. In different periods of human history and culture, it performed different functions (Tomaszewski, 1991; Turska, 1970). Each generation develops dance varieties based on new musical trends and new dance philosophy, raising movement to the heights of physical and spiritual fitness.

Baltimore orphanages died within the first year". Zimbardo and Ruch also cite the observations of other researchers indicating that the lack of normal interaction between mother and child is a real deprivation that can cause harm to the infant, both psychological and biological. Long-term exposure to emotional deprivation leaves permanent marks on a child's growth, intellect and personality (Zimbardo & Ruch, 1988, p. 14).

Ballroom dancing also has its own history, which continues because dance and dance movement are constantly evolving. In Poland, ballroom dancing is associated with the figure of Marian Wieczysty, who initiated the creation of the Polish Dance Club and the organization of the first dance tournaments as competitive forms and gave dance a more institutionalized form. Thanks to Wieczyński, knowledge about dance and rules for verifying skill levels were collected and developed into specific codes, rules and regulations.

Dancing is not only about entertainment and having a good time. It is also a sport that requires attention and time, especially if someone decides to compete in sports. Mastering dance skills requires effort, great motivation and support from coaches and parents. It involves the development of many skills, ranging from mental processes such as attention, memory, imagination to motor skills and motor features such as speed, strength, efficiency (condition), coordination, and orientation in space. A sense of rhythm and musicality are also essential. And the cohesion of a dancing pair requires social skills, proper communication, compassion and co-involvement, because the effect is only possible when the dancing pair works together.

A very important element of dance preparation is motivation, determination, consistency, precision, striving for perfection and resistance to stress. Being assessed in every confrontational situation makes the relationship between the effort put in and the effect achieved very clearly visible. Dance technique (work and position of the feet, awareness and location of the center of gravity of the body, position of the head and hands, the so-called frame, work of the hips, isolation in the body) and dance figures, their combination and directions of movement on the dance floor, are just a few of the elements that are subject to judges' evaluation. The perfection of their performance also translates into the reception of the dance by the audience. The better the technique is mastered, the lighter and more beautiful the dance seems to the recipient, and the more accessible the ability to convey emotions and the character of the dance, the easier it is to convince the recipients of the dance performance to follow the story told by the dance. Ballroom dancing consists of two different forms – standard dances and Latin American dances.

Standard dances

Standard dances, the so-called salon dances, include the English waltz, tango, Viennese waltz, foxtrot (slow foxtrot), and quickstep (Wieczysty, 1986). Each of them has a different history and comes from a different region of the world, but they all make up the World Dance Program. The **English waltz**, danced "in a triangle" in 3/4 time at a tempo of 30–31 bars per minute, has a romantic character.There is no spinning, and the technique requires parallel positioning of the feet and narrow knee guidance. **Tango** has a long history, but it owes its contemporary character to the culture of Argentina. The dance embodies anxiety, sadness and love. It is danced in

2/4 time and at a tempo of 33 bars per minute. The **Viennese waltz**, reminiscent of beautiful balls and salons, is the most popular standard dance. It is a whirlpool dance, danced in a circle at a tempo of 60 bars per minute in 3/4 time. Although it seems easy, and it is nice to watch couples dance, it requires great attention and fitness from the dancers, especially when it comes to meeting the requirements of dance technique. The **foxtrot**, called the "fox step", is performed in 4/4 time at a tempo of 30–32 bars per minute. This is a dance that is considered the most difficult, even though it is called a beautiful walk. The difficulty of the dance is reflected in a statement well known to dancers,"show me how you dance the foxtrot and I will tell you what kind of dancer you are." The **quickstep**, closing the group of standard dances, is the fastest, danced in 4/4 time at a tempo of 50 bars per minute. It comes from the United States, but has been developed since the beginning of the 20th century in England. Due to the characteristic figures, jumps and fast pace, the dancers seem to be hanging in the air. This dance requires very good coordination between the dance pair, especially when performing joint jumps and kicks.

Latin American dances

Latin American dances include cha-cha-cha, samba, rumba, *paso doble* and jive (Wieczysty, 1986). These are dances in a style different from the standard ones. **Cha-cha-cha** is the youngest dance with Cuban roots which is dynamic, expressive, rhythmic, based on the natural movement of the hips and the transfer of body weight from one leg to the other. It is danced in 4/4 time at a tempo of 28–32 bars per minute. It is very cheerful and lively, associated with good fun. Another dance, which is **samba**, comes from Brazil. It is also very dynamic and rhythmic. It is associated with carnival and is indeed the dominant dance during the Brazilian one. It requires dynamic movement of the couple, expressive and fast, rhythmic movements on dance floors. It is danced in 2/4 time at a tempo of 54–56 bars per minute. **Rumba** is another Cuban dance. If well danced, at a high level it becomes a small theatrical performance, because apart from the technique related to the work of the feet, knees and hips, it involves telling a clear story about the relationship between the people making up the couple. Rumba is rhythmic, danced in 4/4 time at a tempo of 28–32 bars per minute. The next is ***paso doble*** which refers to Spain and its aim is to represent the arena and the bullfight. It is very spectacular, and the vibrancy of the story can dazzle viewers. It is danced very dynamically in 2/4 time at a tempo of 60 bars per minute. The last dance is **jive**, born as a result of swing and jazz stylings. It is similar to rock and roll, but there are no acrobatic figures. It requires good condition and fitness (strength and jumping ability), and due to its spontaneity and exciting rhythm, it gives a lot of joy, especially to children.

It is worth emphasizing that the presentation forms of each dance (prepared choreographies) during sports competition last approximately one minute and forty seconds to two minutes. This is a big effort, which roughly corresponds to the effort needed to

run a distance of several hundred meters. The heart rate and breathing rate increase, just like during training or sports competitions, and the body undergoes a huge energy effort. At the same time, you must maintain the ability to assess the situation on the dance floor, demonstrate coordination and attentiveness, anticipate the next directions of movement of the pairs, remember the choreography, and perform each element of the technique at the highest level possible, depending on previous training. You should also add artistic expression appropriate to the nature of the dance and the consistency of the movement performed in pairs with a partner – with music, rhythm and tempo.

Dance training allows you to acquire competences in various development areas. It teaches self-reflection, self-observation and body awareness. Working under the supervision of a trainer and in a group of peers brings visible results and gives a lot of pleasure.

ORGANIZATION AND RESULTS OF THE RESEARCH

Organization of the research

Due to the thesis and the problem of using ballroom dancing as a tool for harmonizing children's development, I conducted research using an interview. The research involved ballroom dance trainers whose range of influence on children with dance concerns various centers in many places in Poland, which results from the fact that, in addition to working in their "mother" center – a dance club/school, they also train dance couples (guest conducting classes and training) in other centers. These were teachers conducting classes in the following centers: Zielona Góra, Międzyrzecz, Szczecin, Poznań, Wrocław, Głogów, and Warsaw. Sports ballroom dancing is a specific form of activity, and those who create dance movements and can pass on their knowledge and skills to their students are a relatively small group in the country. Therefore, it is not surprising that they often conduct classes in various dance clubs. A total of 20 dance teachers, aged 24 to 60, answered the questions. Therefore, their work experience ranges from two to thirty years. They all work with children aged 6–10, both in group and individual classes (e.g. a lesson with a pair).

The questions focused on the indicated problem areas, which were developed as the answers appeared.

1. How do ballroom dance trainers assess the motor skills of children aged 6–10 who are starting to learn sports dancing?
2. How long do they think it takes to notice changes in coordination and efficiency?
3. What developmental areas does ballroom dancing stimulate and how?
4. How does dance training harmonize children's development (dynamics, tempo, rhythm of changes)?
5. What developmental benefits do they see from dance training?

THE RESULTS OF THE RESEARCH

1. Weekly dance classes consist of various types of activities carried out at least twice a week in group classes (90 minutes) and additional individual classes (45 minutes). These are classes of:

- general development
- fitness
- style dance techniques
- working on choreography
- stretching

2. According to the trainers, the level of motor skills of children starting sports dance classes is average and poor.

3. The situation is similar in terms of coordination. Average and poor fitness levels are also observed here. Teachers with extensive experience (between 20–30 years of work) also added that in recent years a deterioration in the coordination skills of children attending dance classes is observed. Some even say that dancing is "rehabilitation" for some children. The conducted research does not allow for far-reaching generalizations, as it does not include data enabling an objective comparison of the children participating in the classes and their motives for taking up dance activity. However, they show an observed trend indicating increasingly weaker motor skills of children.

4. When children come to their first classes, they often do not hear the music, rhythm, tempo, and they are not always able to reproduce the rhythm with movement. The most difficult thing for them is to translate information (given by word and show) into the movement of their own body.

5. According to the respondents, improvement is noticeable after at least half a year, but most often after a full season (one year). Interestingly, teachers with more experience were more likely to see changes only after 3 years of systematic work, which may result from the clearly defined visually and expected movement performance by children, which deviates from the designated level.

6. The biggest and fastest changes in children taking up dance training can be seen when the work is systematic and effectively carried out by the student. Positive changes are then observed in endurance, coordination and sense of rhythm.

7. All teachers emphasized that the biggest problem was maintaining concentration in classes. Children lose attention quickly, which makes it difficult to enforce changes. Attention is the gateway to learning, and in children aged 6–10 it is a constantly developing process, especially in the context of commissioned tasks that require a lot of mental effort. In the case of learning to dance, in addition to physical activity, it is difficult for the child to combine and apply information received on an ongoing basis.

8. Harmonizing development (dynamics, rhythm, pace of changes) depends on regularity and conscious, attentive participation in classes, determination in striving

to complete the task, and the ability to use feedback resulting from mistakes made and instructions obtained from the trainer.

9. Teachers indicated that the greatest developmental gains concern many non-motor skills:

Social skills: ease of contacts, understanding others, including other perspectives, conflict resolution, social courage, openness to new situations, coping with stress, building community (cheering on, comforting), empathy.

Self-confidence and goal orientation: high motivation, setting goals, ability to overcome difficulties, taking up challenges, realistic assessment of possibilities, planning and organization of work.

Understanding what learning is about: an error is feedback, seeking feedback, responsibility, determination to repeat the task consciously, dividing the task into parts.

A sense of aesthetics and the perception of beauty: from styling on the dance floor, to the relationship and respect in the couple and the attitude towards the partner, the audience, to the perception of beauty in other dimensions.

The figure is also an added value: elasticity, flexibility of posture, straight back, ability to control the figure, development of abdominal muscles, back, legs, feet, control of their positioning, strong hands.

Development of cognitive skills: memory (choreography), attention (repeating a movement requires previous observation and listening, it is also important to focus on goals), cause-and-effect thinking, critical thinking, speech, imagination, creativity, perceptiveness.

RESULTS

Ballroom dancing is a form of movement that, due to its multi-faceted training, develops a person in many spheres such as motor, also building the right figure, cognitive, emotional, social, aesthetic and personality.

Due to the work that takes place in a dancing pair, i.e. in contact with another person, it enables learning of communication and social behavior in the broadest sense and creates conditions for the development of sensitivity and empathy. The awareness of creating a couple as a team, a "team" in which we support each other, because only joint effort brings results, creates an opportunity to learn and understand responsibility for yourself and your partner.

Participation in presentation forms related to the presence of rules, norms and principles also teaches culture and manners. The opportunity to compete and participate in presentations with the audience strengthens the personality. It enables the development of an adequate self-assessment, strengthens motivation and self-awareness. It leads to the understanding that every achievement is the result of the work put in,

your own effort. It teaches you to approach mistakes as necessary feedback that can help you achieve higher skill levels.

Developmental harmony is the result of continuous interplay between motor achievements and achievements in the area of self-awareness. It is obtained in a specific intellectual and motorcycle.

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