



14 PLAY AND THE BRAIN

Play is a deep-seated instinct

Since the 1990s, the 'decade of the brain', neuroscience has gained remarkable insights into the workings of the human brain. Observing deep, universal similarities in the play behaviours of mammals, neuroscientists came to the conclusion that play, and particularly rough-and-tumble play, is genetically ingrained in the brain of all mammals, including humans.

Like the play of children, the play of young animals is done for its own sake and does not serve a direct survival purpose. It happens when no other pressing survival matters are present, when animals feel comfortable and safe. Because play is a stress-free activity, the learning that comes with it is positive learning.

How does play affect brain, mind and body?

Free physical play helps the young to explore and interact with their environment, understand their body's abilities, and develop a variety of aptitudes, such as locomotor skills, problem-solving and creative thinking. Play not only helps children develop and test new practical skills; it also encourages pro-social brain maturation. It offers a safe space where they can explore ways of relating to others, learn to regulate their own emotions, develop self-reflection, resilience, empathy, social bonding and cooperation. Taking risks and overcoming them during play is an important part of child development. Studies show that preventing children from encountering risks can lead them to develop anxiety. Some scientists suggest that the rise in childhood disorders, such as hyperactivity, as well as anti-social behaviours, may actually be linked to the deprivation of free play. Physical, rough-and-tumble play may well be the primer for more complex types of play, such as imaginative and pretend play, board and computer games.

A playful attitude for life

Laughter is part of the same brain circuit that regulates play. Just like play, laughter too is an innate, primal behaviour that has no apparent survival function. Other species, such as chimpanzees and dogs, show behaviours similar to the human laughter. It signals to others a playful mood, and invites relaxed socialising.

A creative and playful attitude is, as research states, a key role in the development of our brain at any age. Art, creativity and humour seem to create more links involving the whole brain than any other activity (with the exception, perhaps, of dreaming).

How can we use this knowledge?

Neuroscience findings can help us advocate for free play and develop a society that values playfulness allowing for more play opportunities. Scientists also suggest exploring the potential of play as a clinical intervention for childhood disorders.

Drawing from a concept from Plato, leading neuroscientist Jaak Panksepp proposed the creation of play sanctuaries: safe spaces, offering children opportunities for natural, free play, combined with emotional education.

The discreet supervision from practitioners would help them navigate the pitfalls of social relationships, resolve conflicts, avoid aggressive or harmful behaviours, and develop social sensitivity, gaining emotionally fulfilling experiences.

Further Reading

Play as a basic emotional circuit:

<https://www.journalofplay.org/sites/www.journalofplay.org/files/pdf-articles/2-3-interview-science-of-brain-jaak-panksepp.pdf>

Play and early attachment:

<https://www.journalofplay.org/sites/www.journalofplay.org/files/pdf-articles/9-2-interview.pdf>

ADHD and play sanctuaries:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2242642/>

Smart Play Network Members Support

Member you have access to telephone and email support. For more information about the topics covered in this guidance sheet, or any other queries you may have about your project, please contact us using: 0131 554 2620 or admin@smartplaynetwork.org

