

Children, playing and the future

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Being living – being human

- Moving
 - looking for meaningful connections;
- Sensing and experiencing
 - experiences encode sensations into groups
- Feeling and thinking
 - grouping and validating sensations and experiences
 - working with groups and creating new connections
- Playing
 - enjoying the world, ones body and others
- Communal and storytelling
 - generosity and creativeness through complexity
 - sharing of experiences and understanding
- Creating and spiritual
 - searching for meaning and bigger picture

Primitive pleasure pathways

- Pleasure pathways broaden and build mental functions (Fredrickson 2004)
 - connectivity in the brain increases
 - new routes are created with new ways of
- Three major pathways are shared by all mammals (Panksepp 2005)

1) Exploration

2) Play

3) Attachment and caring

In play relationships and friendships, all these can come on line

being human is being playful

- Playing from infancy to old age
 - only few species play after adolescence
 - giving and receiving joy and delight
- Playing with young
 - giving way to the less strong to win
 - creating true pride and mastery
 - intense physical pleasure
- Playing with peers
 - games
 - sport
 - theater

Play is preparing for the unexpected

- A major ancestral function of play is to find and rehearse behavioral sequences
 - in which animals lose full control over their locomotion, position, or sensory/spatial input
 - and need to regain these faculties quickly
- **develop emotional flexibility**
 - rehearsing the emotional aspect of being surprised or temporarily disorientated or disabled
- self-handicapping
 - moving in a way that is less than fully stable or efficient
 - performing object manipulation while positioned in a way not best suited for full control over the object
- using physical properties of the environment to enhance the probability that they will be thrown off balance into unusual positions
 - deep soft snow, slippery slope, water

Play creates emotional vocabulary

- **Rewarding**
 - maybe even **pleasurable**
- **Emotionally exciting**
 - perhaps even thrilling though not intensely frightening
- **Relaxed**
- Play activates the **social engagement system** which is also a necessary prerequisite
- Rapid alternation between controlled and uncontrolled actions
 - rapid assessment and reassessment of qualitatively different situations that do not normally follow each other
- Learning to improvise is what we need for our future
 - play enhances improvisation skills

Play is healthy

- Rhesus-monkeys deprived of play become socially handicapped
 - stereotypy, self-soothing, self-harming
 - cowering, aggression
 - abuse of own pups
- Only effective treatment is play (Novak, Harlow 1975)
 - not with peers but with naïve young
 - young pups were totally accepting
 - would not take no for an answer but enticed the withdrawn monkey to play
 - play was physical, both primary and rough-and-tumble
- Monkeys became socially and parentally competent

Theraplay: First principle

Engagement

- Feeling secure in proximity is a skill
 - relaxing in touch needs activation of the social engagement system
- Proximity and touch
 - facial contact as much as possible
- Active prosocial communication
 - relaxed and lively especially around eyes and mouth
 - voice: international parentese
 - continuation and sing songy
 - down regulates stress system
- Long outbreath, relaxed inbreath

Second principle: Nurture

- Adapting to age and reactions
 - playful to guard against embarrassment
- Touch
 - strong, rhythmic, continuous contact
 - massage, brushing hair,
 - lotioning or stroking through silk
- Singing:
 - strong rhythm and simple melody
 - words created for this situation
- Food and drink
 - relaxing
 - strengthening attachment

Third principle: Structure

- Security from knowing what is going to happen
 - the need to be in control thwarts curiosity
- Making sure the child succeeds
 - short clear instructions
 - supporting and helping
 - taking responsibility when something goes wrong
- Clear short bouts of playing
 - moving on before child gets bored
- Having a plan for the whole situation
 - calming down with nurture as an end
 - practicing with parents beforehand

Fourth principle: Challenge

- What is especially important for the child
 - for all of us, it is crucial to feel competent
 - supporting success creates brain connections
- Start with very simple sequences
 - learning requires skills being taken apart
- Thanking and congratulating child for success
 - the child has a right to get positive feed-back
 - can be simple and small - must be true
 - most children get more than their share of negative feed-back
- Increasing challenge slowly

Many different forms of Play

- Primary social
 - rhythm, rhyme, shared meaning making
 - sheer joy of expectation and surprise: turn-taking
 - **communicative musicality**: dancing with nonverbals
 - non-mechanical: always reactive and modulating
- Physical
 - tickling, rhythmic rocking
 - throwing and catching
 - intense sensations and up-regulation

Many different forms of Play

- Primary social
 - rhythm, rhyme, shared meaning making
 - sheer joy of expectation and surprise: turn-taking
- Physical
 - tickling, rhythmic rocking
 - throwing and catching
 - intense sensations and up-regulation
- Rough-and-tumble
 - running after and away; catching
 - wrestling and play-fighting
 - tumbling over each other
 - fear and relief, mastery and surrender

Different forms of Play 2

- Playing with rules
 - learning and practicing shared culture
 - executive functioning: waiting for ones turn
 - postponement of reward
 - creating and sharing new possibilities:
- Creative play and pretend play
 - playing with own physical reality
 - quintessentially human: making new worlds
 - story making and sharing
- Working through play
 - intense experiences: trauma
 - dreaming while awake

References and further reading 1

- Bell, H. C., Pellis, S. M., & Kolb, B. (2010). Juvenile peer play experience and the development of the orbitofrontal and medial prefrontal cortices. *Behavioural brain research*, 207(1), 7-13.
- Bentzen, M., & Hart, S. (2014). *Through windows of opportunity*. Karnac Books.
- Burghardt, G. M. (2015). Play in fishes, frogs and reptiles. *Current Biology*, 25(1), R9-R10.
- Burghardt, G. M. (2005). *The genesis of animal play: Testing the limits*. Mit Press.
- Dunbar, R. I. (2010). The social role of touch in humans and primates: behavioural function and neurobiological mechanisms. *Neuroscience & Biobehavioral Reviews*, 34(2), 260-268.
- Fagen, R.M. & Fagen, J. 2009. Play behaviour and multi-year juvenile survival in freeranging brown bears, *Ursus arctos*. *Evolutionary Ecology Research*, 11, 1–15.
- Ferchmin, P. A. & Eterovic, V. A. 1982. Play stimulated by environmental complexity alters the brain and improves learning abilities in rodents, primates and possibly humans. *Behavioral and Brain Sciences*, 5, 164-165.
- Fredrickson, B L. 2004 "The broaden-and-build theory of positive emotions." *Philosophical transactions-royal society of london series b biological sciences*(2004): 1367-1378.
- Hamlin JK & Wynn K: 2011 Young infants prefer prosocial to antisocial others *Cognitive Development*,26/1, pp. 30–39
- Henderson, A. M., & Woodward, A. L. (2011). "Let's work together": What do infants understand about collaborative
- Hrdy SB: Mothers and others: The evolutionary origins of mutual understanding Harvard U Press 2009
- Leikola A, Mäkelä J, Punkanen M 2016 Polyvagaalinen teoria ja emotionaalinen trauma *Duodecim*132(1):55-61 Malloch, S., & Trevarthen, C. (2009). Musicality: Communicating the vitality and interests of life. *Communicative musicality: Exploring the basis of human companionship*, 1, 1-10.
- Lindaman S, Mäkelä J (2018) The Polyvagal Foundations of Theraplay Treatment: Combining Social Engagement, Play and Nurture to Create Safety, Regulation, and Resilience in Porges
- Mäkelä J, Hart S: Theraplay - Intensiv, engagerende, interaktiv leg som et middel til at fremme psykisk udvikling *Af Jukka Mäkelä og Susan Hart. I Neuroaffektiv psykoterapi med børn* Hart S Gyldendal 2011

References and further reading 2

- Montgomery, S. H. (2014). The relationship between play, brain growth and behavioural flexibility in primates. *Animal behaviour*, 90, 281-286
- Novak M 1979: Social Recovery of Monkeys Isolated for the First Year of Life
- Panksepp, J. "Affective consciousness: Core emotional feelings in animals and humans." *Consciousness and cognition* 14.1 (2005): 30-80.
- Pelagi et al 2004 Immediate and Delayed Benefits of Play Behaviour- New Evidence from Chimpanzees *Ethology* 110, 949—962
- Pellis S, Pellis V, Bell H 2010 The function of play in the development of the social brain *Am. J. Play* Winter, 2778-296
- Porges, S. W. (2003). The polyvagal theory: Phylogenetic contributions to social behavior. *Physiology & Behavior*, 79(3), 503-513.
- Rogoff B: The Cultural Nature of Human Development, Cambridge University Press 2003
- Sharpe, L.L. 2005 a. Play fighting does not affect subsequent fighting success in wild meerkats. *Animal Behaviour*, 69, 1023-1029.
- Sharpe, L.L. 2005. b Play does not enhance social cohesion in a cooperative mammal. *Animal Behaviour*, 70, 551-558.
- Siegel, D. J. (2012). *Pocket Guide to Interpersonal Neurobiology: An Integrative Handbook of the Mind (Norton Series on Interpersonal Neurobiology)*. WW Norton & Company.
- Siegel D.J. 2014 *Brainstorm*. Nuoruuden aivomyrskyn voima ja merkitys Basam Books
- Spinka, M., Newberry, R. C., & Bekoff, M. (2001). Mammalian play: training for the unexpected. *The quarterly review of biology*, 76(2), 141-168.
- Stern, D. N. (2010). *Forms of vitality: Exploring dynamic experience in psychology, the arts, psychotherapy, and development*. Oxford University Press
- Suomi, S. J., & Harlow, H. F. (1972). Social rehabilitation of isolate-reared monkeys. *Developmental Psychology*, 6(3), 487.
- Trevarthen C: The concept and foundations of infant intersubjectivity, Cambridge University Press 1998
- Tronick E: 2014: Plenary at the Nordinc Theraplay Conference Sharing Play, 204)
- Warneken, F., & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. *science*, 311(5765), 1301-1303