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**The Playful Brain: Educating for  
Belonging**

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Podstawy Edukacji 7, 441-454

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2014

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej [bazhum.muzhp.pl](http://bazhum.muzhp.pl), gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

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# The Playful Brain: Educating for Belonging

*It's only with a child's imagination that grown-ups can begin to conceive a better world.*  
Yann Martel (2005)

[...] *to him that is joined to all the living there is hope.*  
Ecclesiastes, 9,4

## Introduction

Behind the apparent diversity of life lies a hidden symmetry, life's common sense of kindness and belonging. To be effective education must adapt itself to express the unity underlying our diversity. This cannot be done by simply upgrading our technology or adding names to our social networking accounts. All of our advances in technology will prove fatal to us in the end unless we achieve a corresponding advance in what Albert Schweitzer (Franck, 1959) called „reverence for life“. We need a radically different approach. Albert Einstein has warned us that „No problem can be solved from the same consciousness that created it – we must learn to see the world anew“ (Austin, 2009, p. 135). What is required is a new consciousness; an open-minded approach to asking

and answering fundamental questions that can yield powerful insights into the nature of children and learning.

Where are we do find such a new consciousness? Isaiah (11,6) points us in the right direction. „And a little child shall lead them”. Lead us where? Suppose this is not merely Biblical prophesy. H.H. The Dalai Lama (Ekman, 2008, p. 244) has repeatedly suggested that we work with children. But how? The answers to these questions are hidden in plain sight and described in a short declarative sentence: Peace is child’s play.

We have all seen little children play. But did we merely look or did we really **see**? We must see differently to discover the belonging in original play. Our vision must include the living interconnected world of belonging felt by children. We’re proposing that hidden in children’s original play is a code of kindness that can not only change our minds about separation and conflict but change our brains and our behavior and in so doing advance our understanding of what belonging truly means. This is a radical and necessary approach for education to pursue in such a rapidly changing world. In order to feel the interrelatedness of life we must learn to see connections where we previously only looked at separate parts. The old certainties of separation and conflict with which we have lived for centuries have remained unchallenged. Einstein termed this delusion of separateness „the most painful delusion in our world today” (Wilber, 1991, p. 18).

Dalai Lama (Hayward, Varela, 1992, p. 254) argues that the basic human nature is compassionate, loving kindness and that its importance and effectiveness have now been established from the scientific standpoint. As Schweitzer put it: „Until he extends the circle of compassion to all living things, man will not himself find peace” (Lorimer, 1990, p. 72). St Paul sums it up by saying that „[...] we are members of one another”.

What adults have disregarded as childish nonsense with no real value turns out to be an unimagined and primary conveyor of wisdom, belonging, and peace. The purpose of this article is threefold. First, we suggest that life has an internal and universal code of kindness that replaces the contest mindset with a playful brain. Second, children’s original play actualizes this code of kindness. Third, this code of kindness can be nurtured and cultivated into an active form of compassion providing a practical, systematic, and universally applicable alternative for education.

## Kindness: Our Underlying Unity

Life has buried in our genes a sense of belonging whose wisdom is at once biological, spiritual, ecological. For example Dalai Lama (Harrington, Zajonc, 2006, p. 15) argues that the basic human nature is compassionate, loving kindness and that its importance and effectiveness have now been established from the scientific standpoint. This is a special kind of knowing, ipseity – our universal essential way of being beneath the layers of culture, thought and reaction, identity and adaptation (Siegel, 2007, p. 321). It is the essential self prior to the autobiographical self. This sense of belonging has been felt and described by many with a rich variety of linguistic, scientific, and spiritual descriptions. To archbishop Desmond Tutu this belonging is called **ubuntu**, „[...] to have what it takes to be a human being [...] one whose humanity is caught up in your humanity” (H.H. the Dalai Lama, V. Chan, 2004, p. 69). For Dalai Lama (H.H. the Dalai Lama, V. Chan, 2004, p. 120) it is a feeling of interdependence, in which he is connected in such a way that his personal boundaries dissolve.

Many prominent scientific figures have felt this sense of belonging. Through their work they felt a unity in the universe beyond the material world. Einstein referred to a „cosmic religious feeling” (Newberg, 2001, p. 153). Erwin Schrödinger (Weber, 1986, p. xv) describes a oneness of all things in which individual life and all other conscious beings „are all in all”. Biologist Edwin Chargaff adds that

If [a scientist] has not experienced, at least a few times in his life, this cold shudder down his spine, this confrontation with an immense, invisible face whose breath moves him to tears, he is not a scientist (Newberg, 2001, p. 154).

Plant biologist Barbara McClintock for decades was virtually alone in her view that „basically everything is one” (Weber, 1986, p. 244). Physicist David Bohm agrees saying „Deep down the consciousness of mankind is one” (Weber, 1986, p. 215). Nobel winning chemist Ilya Prigogine’s (Weber, 1986, p. 187) stresses life’s interdependence and interconnection. Physicist Erwin Schrödinger (Weber, 1986, p. xv) points out that the most popular name for this great Unity is God. Neuroscientist Donald W. Pfaff found an ethical command that „[...] seems to be true of all religions,

across continents and across centuries” (2007, p. 3) – the Golden Rule. Biologist Bruce Lipton asserts: „Survival of the Most Loving is the only ethic that will ensure not only a healthy personal life but also a healthy planet” (2005, p. 202).

The stunning message of scientists and mystics is that we are pre-disposed to recognize that we are one. This sense of unity is embodied in a behavioral code, a code so deviously simple that it does not need to be hidden in numbers, words, or symbols.

## The Playful Brain

It is not only sages and scientists who appreciate and feel our sense of belonging. This is what five years old David was describing when he declared to me, „Fred, play is when we don’t know that we are different from each other”. David expresses the sense of unity described by his learned elders. Yet while many scientists and sages acknowledge that a sustaining pattern of unity exists in life, they haven’t known how to develop it. Nor do they know where to look to find it. Dalai Lama (Goleman, 2003, p. 277) for example writes that he doesn’t have any particular ideas as to what specific techniques might be used to bring about this pattern in children. Psychologist Paul Ekman (Goleman, 2003, p. 148) also does not have any suggestions as to what practices can shorten the refractory period in fear. Father Bede Griffith (Weber, 1986, p. 159) has encountered life’s sacred simplicity as a philosophy but only rarely has he seen it embodied. Biologist Francisco Varela (Hayward, Varela, 2001, p. 253) adds that the question of increasing compassion has not only not arisen in biology it has not been imagined. Scientist Steven Strogatz points out that „[...] we still know almost nothing about the laws governing the interactions between genes, or proteins, or people” (2003, p. 259).

Fortunately this pattern can be discovered and experienced by us. The recent findings of neuro plasticity suggest that we can remodel our neuro networks and indeed can train ourselves to be more kind, more compassionate beings. Research also indicates that as Daniel J. Siegel puts it,

[...] the resonance circuits have been shown to not only encode intention, but also to be fundamentally involved in human empathy, and also in emotional resonance, the outcome of attunement of minds (2007, p. 320).

Iacobini (2009, p. 267) has called mirror neurons the cells in our brains that make our experience of others deeply meaningful. He continues:

They show that we are not alone, but are biologically wired and evolutionarily designed to be deeply wiring connects us all at our common human core.

We are programmed – no hard-wired – to connect. This means that at a neural level our brains can encode not only what we physically see, but the intention that we imagine. Siegel suggests that

In the next now, what happens actually matches what our mirror neuron system anticipated and the coherence between that anticipation and the map of what interconnected with one another (2007, p. 321).

Daniel Goleman adds that „The social brain actually creates a profound state of coherence” (2006, p. 319). This belonging is humanity’s common sense.

Original play’s breathtakingly ingenious neural pattern recognition system is an innate ecological intelligence or pattern of kindness that not only recognizes that all life is of only one kind, but embodies an emergent pattern of behavior that sustains this sense of life’s deep belonging. Play’s ecological wisdom serves as a defibrillator to contest’s deadly arrhythmia in the pattern of human life. This is an ecological relationship in which egocentricity is replaced by eco-centricity. In this ecology one’s gentle touch is local and particular while one’s reach is global and universal.

## Nurturing the Playful Brain

Original play is a powerful process with profound implications for education. Original play taps into implicit, hard-wired capacities of our inherent unity. In doing so it frees us from the illusion of separateness and simultaneously widens our circle of compassion.

Our play with children and animals for the past forty years has provided a wealth of anecdotal and empirical data on the emotional and physical principles inherent in original play. The children's original play demonstrates that unity lies at the heart of our world and that it can be experienced and shared. Original play is a simple, inherent, and practical relationship that decreases fear and aggressive behavior and replaces these feelings and actions with wisdom and compassion. Training in original play produces a sense of compassionate coherence that can be instantaneously activated and communicated to others. This belonging is life's common sense; we are hardwired to connect.

Forty years ago children tugged me to the ground to join them their play. In doing so they not only tugged on my pants, but yanked on my imagination. I had to be hit in the heart to rediscover this sense of belonging. The transformation has been far more fundamental than I imagined. Children changed more than my mind, they changed my brain. The more I played the more my brain replaced the contest patterns with new patterns of play. As my friend and mentor psychiatrist Björn Wrangsjo told me one morning at breakfast in his home in Stockholm: „Fred, you've played for so long that you've changed your brain". Björn's statement was profound. Goleman agrees:

In effect, being chronically hurt and angered, or being emotionally nourished, by someone we spend time with daily over the course of years can refashion our brain.

The salient property of original play's coherence is that it transforms the context within which we live our lives. It transforms the categories of the psychic and social self, and in the process disrupts our automatic fear response, changing what constitutes our self defense relationship with reality. Original play functions like a sort of circuit breaker shutting down the brains flight, fight, freeze circuit and re-establishes an inherent sense of kindness. Original play is a coherent state in which our fight or flight mechanism of the sympathetic nervous system is reduced while simultaneously promoting the healthier, growth potential of the parasympathetic nervous system. Accordingly, original play reflects not only the covert ways our normal brains' attention networks have been wired by fear but more importantly how these networks can be rewired to process that vast other reality beyond the grasp of our

fearful egocentric selves. Bruce Lipton (2005, p. 147) describes the brain functioning as a light switch – off and on, fear and love. Newberg and Waldman say the same thing in different words: „Love goes up and fear goes down. Anger goes up and compassion goes down” (2009, p. 127). Dalai Lama points out that „[...] the brain cannot develop properly and people cannot be healthy in the absence of human affection” (Harrington, Zajonc, 2006, p. 15).

Within original play’s sense of belonging we can feel the boundaries of self and other disappear. Here are three examples in which original play short-circuits our differences and helps us to regain our humanity.

Can you help me not to fight? When someone even touches me I hit without thinking. I’m tired of fighting and being in the principal’s office every day. I’m tired of having to talk with the police.

The speaker is an eighteen year old gang member in a New York City workshop I gave for gang leaders. He stopped me during a break to talk. I asked him if he would come up in front of the others with me after the break. He shrugged and agreed. After the break we stood facing each other about a foot apart. I whispered to him: „Can I push you?”. He nodded yes. I put my hand on his shoulder and pushed him sideways. He hardly shifted his feet. He is about six feet and around 200 pounds. I whispered: „Can I push you harder?”. He shrugged and nodded. I shoved him harder this time. Reflexively his right fist came toward my face. I deflected his fist with the back of my right hand as it neared my left cheek. I spiraled it away in an S motion bringing it down to my chest where I held it softly against me. I looked in his eyes and released his hand. We hugged and sat down. When I sat down the young woman sitting next to me whispered: „Did you see his eyes?”. „Yes, I know”. I nodded. He was crying.

The teenager’s reflexive response to a conflict was aggression. He was then presented with an unprecedented reaction. The teenage gang member punched but there was no victim, no aggressor, no blame, no fault, no revenge. This is the promise of original play – the possibility of dissolving aggression and victimization. When the twenty-five gang leaders and I were saying goodbye on the street after the play session the young man came up to me. „Can I learn to do this with children?”



„Of course,” I said. We hugged again and went our separate ways. But not as separate as before.

The teenager experienced the moment in original play when two people have the opportunity to create a new relationship of belonging that is literally outside the categories of their normal worlds.

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One day I was arranging some thin mats on the concrete floor in a corner of a corridor in Pollsmoor Prison, in Cape Town, South Africa. Small groups of prisoners walked by. Most took no outward notice of me. One tall young man in a blue prison jumpsuit stopped. He looked at me as if I were totally out of place. In the prison everyone knows their place. Here is a white guy all alone sitting on the floor in a secluded hallway. No guards were around. He asked me: „Who are you? Do you know who we are? We are murderers, rapists, drug dealers”. I just smiled and crawled toward him and nudged his legs. He smiled a huge smile. I tackled him and we rolled together on the mats. He laughed and squirmed out of my grasp. When he stood up he laughingly said: „OK! OK! I get it”. We shook hands and he ran to catch up with the other prisoners. I never told him who I was. I showed him who I am. My sudden behavioral answer to his question brought us out of our categories. For the briefest of times we were without categories, no prisoner, no stranger, no American, no South African.

In our play these young men felt their belonging to something greater than a gang membership. Original play dissolved our categories. This is what in South Africa is described as **ubuntu**, the compassion evident when one’s humanity is caught up in another’s humanity. Garnezy and Rutter (Davidson, Harrington, 2002, p. 178) indicate that a loving and affectionate connection to even one person can limit or counteract much of the damage done by negative environments.

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Another example of playing beyond our accepted categories involves a boy with autism. He was eight years old. We had just finished a session of original play in his school in Seattle. Contrary to the expectations of research his play was indistinguishable from that of other children. He did no stimming and no echolalia. He played with me, not at me or next

to me, but **with** me. No parallel play. No autism. This was not merely a lack of ego, but a dynamic blending of two people beyond the categories of their everyday lives. Following the play session we were sitting on the edge of the mats waiting for his teacher to come and walk him back to class. As he sat there he exclaimed, „I wish I had a normal life. I wish I had a normal life. This play is my reminder of a normal life”. Not only did he play, but he also commented on his experience of play as a world outside of autism.

Since autism was discovered in the 1940's by Leo Kanner in Baltimore and Hans Asperger in Vienna there have been 100's of case studies in the medical literature documenting in detail the symptoms of autism, which fall into two main groups: social-cognitive and sensorimotor. The first group is thought to be the single most important diagnostic symptom: mental aloneness and a lack of contact with the social world coupled with an inability to have empathy with others. Psychologists and educators often describe children with autism as being unable to participate in social play because they cannot demonstrate empathy. Neuroscientist V.S. Ramachandran expresses a commonly held belief among parents, educators and scientists when he says that „Autistic children express no outward sense of play” (2011, p. 137). He adds that „How sad it must be for parents to see their sons and daughters impervious to the enchantment of childhood”. As the boy above demonstrated autistic children engage in play, but not the cultural variety that adults expect. We can turn around Ramachandran's statement to say, how sad it must be for autistic sons and daughters to see their parents, teachers, and therapists impervious to **their** play.

When we let go of our hold on our assumptions, models, and theories of culture we enter into a state of „no categories” allowing us to experience our sense of belonging. Original play's kindness opens us to a range of choice simply unavailable to the contesting mind. In fact as Lipton points out a sustained self-defense response inhibits the creation of life-sustaining energy. When we undergo a threat we experience an „amygdala hijack' which triggers a flood of stress hormones with a range of negative consequences including lowering the effectiveness of our immune response. Original play increases the range of options but does not increase the time needed to make a choice. Original play's access to a wide range of choice is below the level of consciousness and

does not result in what is clinically called decision paralysis. In fact, the opposite is true. This happens so quickly that I do not feel like a decision is being made at all.

Original play's „remapping” enables the brain to process information much differently than in contest consciousness. Original play's kindness destructures, deprograms and deconditions fear making whole new orientations possible. Original play promotes neural plasticity and strengthens specific neurological circuits that generate peacefulness, awareness, and compassion. With practice seconds of kindness can be stabilized into temperaments becoming familiar and effortless. The result of such training is a sense of ecological coherence that can be instantaneously activated and communicated to others.

## Conclusion

*There is no loneliness to the clear eyed mystic in this luminous,  
brimming Playful world.*

Hafiz (quoted after: Ladinsky, 2003, p. 8)

Perhaps my play over the years has as James H. Austin describes:

[...] deconditioned my limbic system and frontal regions of their more maladaptive responses while liberating some of the most highly evolved associative functions represented farther forward in the frontal pole and temporal pole (2006, p. 270).

It was as if at subcortical levels my preattentive system scanned my experience for safe, appropriate options. Such a brain becomes as Austin points out: „[...] a resource which could serve as the basis both for our long range biological survival and for our cultural advancement” (2009, p. 135).

Sages and scientists have long been aware of a sense of unity underlying human life. The latest research in neuroscience confirms the presence of such a sense of belonging. But knowing and experiencing are very different things. Our play with children demonstrates that this feeling of belonging is not only inherent in life but can be experienced. Psychologist Paul Ekman writes: „We need a loving-kindness exercise

room" (2008, p. 225). An exercise room of loving kindness or playground is exactly what original play provides.

The fearful contest reflexes we assumed to be set not only can be modified, they can be replaced by the playful brain. Original play's „remapping" enables the brain to process information much differently than in contest consciousness, rechanneling fearful, aggressive energies toward compassion. Original play taps into implicit, hard-wired capacities of our native intelligence dropping out the psychic and social, and even species self, and in the process destructures, deprograms and deconditions fear, and strengthens specific neurological circuits that generate peacefulness, awareness, and compassion.

Original play provides behavioral evidence that the brain and body can be deconditioned from fear and conflict. Our approach differs from previous research in that original play is intrinsic to children and is universal and independent of language, culture, and medical issues. Our approach corresponds with the suggestion made by Austin (1998, p. 688) that it would seem worthwhile for investigators to extend their studies toward the more spontaneous, non-task-induced behaviors, because this would more closely correspond with the way one's experience naturally unfolds and there is no-thinking and this long moment of non self-conscious mental silence in clear awareness corresponds more closely with the psychological concept of an authentic „baseline". With practice seconds of kindness can be stabilized into temperaments becoming familiar and effortless.

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**Key words:** play, brain, belonging

## Summary

Behind the apparent diversity of life lies life's common sense of kindness and belonging. To be effective education must adapt itself to express the unity. This cannot be done by simply upgrading our technology or adding names to our social networking accounts. All of our advances in technology will prove fatal to us in the end unless we achieve a corresponding advance in what Albert Schweitzer called „reverence for life”.

We need a radically different approach. We're proposing that hidden in children's original play is a code of kindness that can not only change our minds about separation and conflict but change our brains and our behavior. The stunning message of scientists and mystics is that we are predisposed to recognize our sense of unity. Yet while many scientists

and sages acknowledge that a sustaining pattern of unity exists in life, they haven't known how to develop it.

The purpose of this article is threefold. First, we suggest that life has an internal and universal code of kindness that replaces the contest mindset with a playful brain. Second, children's original play actualizes this code of kindness. Third, this code of kindness can be nurtured and cultivated into an active form of compassion providing a practical, systematic, and universally applicable alternative for education.

Fortunately this pattern can be discovered and experienced by us. Consistent with recent findings in neuroscience our play with children and animals has provided a wealth of anecdotal and empirical data demonstrating that original play is a simple, inherent, and practical relationship that decreases fear and aggressive behavior and replaces these feelings and actions with wisdom and compassion. Original play's „remapping” enables the brain to process information much differently than in contest consciousness, rechanneling fearful, aggressive energies toward compassion. Original play taps into implicit, hard-wired capacities of our native intelligence and in the process destructures, deprograms and deconditions fear, while strengthening specific neurological circuits that generate peacefulness, awareness, and compassion.

**Słowa kluczowe:** zabawa, mózg, przynależność

## Streszczenie

Poza oczywistym zróżnicowaniem w życiu jest w nim także powszechne poczucie serdeczności i przynależności. Aby edukacja była efektywna, musi zaadaptować się do wyrażania jedności, co nie może odbyć się przez zwyczajne podnoszenie standardów technologicznych albo kolejnych raportów i rozliczeń. Nasze zaawansowanie w technologii okaże się fatalne w skutkach dla rodzaju ludzkiego, chyba że osiągniemy postęp w tym, co A. Schweitzer nazwał „szacunkiem dla życia”.

Potrzebujemy zupełnie innego podejścia. Proponujemy refleksję nad dziecięcą zabawą. Ukryty w niej jest bowiem kod dobroci, który nie tylko może wpłynąć na zmianę naszego umysłu, ale może także zmienić funkcjonowanie mózgu i nasze zachowanie. Pogłębiona wiedza naukowców i mistyków mówi, że mamy predyspozycje do rozpoznania naszego

poczucia jedności. Wielu naukowców i mędrców uznaje fakt istnienia w życiu ciągłego wzorca jedności, nie wiedzą oni jednak, w jaki sposób można go rozwijać.

Są trzy cele tego artykułu. Po pierwsze, sugerujemy, że życie ma wewnętrzny i uniwersalny kod życzliwości, który zastępuje umysł nastawiony na rywalizację. Po drugie, dziecięca „pierwotna zabawa” powoduje odnawianie się tego kodu. Po trzecie, ten kod życzliwości można pielęgnować i rozwijać w kierunku aktywnych form współczucia, które są praktyczną, uniwersalną, systematyczną alternatywą dla edukacji.

Na szczęście ten wzór może być przez nas odkrywany i doświadczany. Wraz z najnowszymi zdobyczami neurologii nasza zabawa z dziećmi i zwierzętami dostarcza danych, które ilustrują, że *original play* (pierwotna zabawa) opiera się na prostych, wewnętrznych, praktycznych mechanizmach, które zmniejszają lęk i zachowania agresywne, a także zastępują je działaniem pełnym współczucia i miłości. Ten „nowy wzór mapy mózgu” umożliwia przetwarzanie informacji w sposób zupełnie inny, niż ma to miejsce w przypadku zachowań rywalizacyjnych. Przewzorowaniu ulega lęk i agresja, które przekształcane są we współczucie. *Original play* zapewnia wysokiej jakości umiejętności wynikające z naszej wrodzonej inteligencji i zmienia stany lękowe, wzmacniając wytworzone przez zabawę szczególne połączenia neurologiczne, co z kolei generuje spokój, przytomność umysłu i współczucie.