

Give childhood back to children – Dr Peter Gray - 27 January 2014

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Give childhood back to children: if we want our offspring to have happy, productive and moral lives, we must allow more time for play, not less

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I'm a research bio-psychologist with a PhD, so I've done lots of school. I'm a pretty good problem-solver, in my work and in the rest of my life, but that has little to do with the schooling I've had. I studied algebra, trig, calculus and various other maths in school, but I can't recall ever facing a problem – even in my scientific research – that required those skills. What maths I've used was highly specialised and, as with most scientists, I learnt it on the job.

The real problems I've faced in life include physical ones (such as how to operate a newfangled machine at work or unblock the toilet at home), social ones (how to get that perfect woman to be interested in me), moral ones (whether to give a passing grade to a student, for effort, though he failed all the tests), and emotional ones (coping with grief when my first wife died or keeping my head when I fell through the ice while pond skating). Most problems in life cannot be solved with formulae or memorised answers of the type learnt in school. They require the judgement, wisdom and creative ability that come from life experiences. For children, those experiences are embedded in play.

I'm lucky. I grew up in the United States in the 1950s, at the tail end of what the historian Howard Chudacoff refers to as the "golden age" of children's free play. The need for child labour had declined greatly, decades earlier, and adults had not yet begun to take away the freedom that children had gained. We went to school, but it wasn't the big deal it is today. School days were six hours long, but (in primary school) we had half-hour recesses in the morning and afternoon, and an hour at lunch. Teachers may or may not have watched us, from a distance, but if they did, they rarely intervened. We wrestled on the school grounds, climbed trees in the adjacent woods, played with knives and had snowball wars in winter – none of which would be allowed today at any state-run school I know of. Out of school, we had some chores and some of us had part-time jobs such as paper rounds (which gave us a sense of maturity and money of our own); but, for the most part, we were free – free to play for hours each day after school, all day on weekends, and all summer long. Homework was non-existent in primary school and minimal in secondary school. There seemed to be an implicit understanding, then, that children need lots of time and freedom to play.

I'm writing, here, in response to the news that the independent School Teachers Review Body is due to report back this week to Michael Gove on his plan to make school days longer and holidays shorter. The Education Secretary's hope is that more hours in school will raise test scores in the UK to the level of those in China, Singapore and other East Asian nations. Paradoxically, Gove's proposal has appeared just a few months after the Chinese ministry of education issued a report – entitled Ten Regulations to Lessen Academic Burden for Primary School Students – calling for less

time in school, less homework and less reliance on test scores as a means of evaluating schools.

Educators in East Asian nations have increasingly been acknowledging the massive failure of their educational systems. According to the scholar and author Yong Zhao, who is an expert on schools in China, a common Chinese term used to refer to the products of their schools is *gaofen dineng*, which essentially means good at tests but bad at everything else. Because students spend nearly all of their time studying, they have little opportunity to be creative, discover or pursue their own passions, or develop physical and social skills. Moreover, as revealed by a recent large-scale survey conducted by British and Chinese researchers, Chinese schoolchildren suffer from extraordinarily high levels of anxiety, depression and psychosomatic stress disorders, which appear to be linked to academic pressures and lack of play.

The main focus of my own recent research is on the value of play for children's development. All mammals play when they are young and those that have the most to learn play the most. Carnivores play more than herbivores, because hunting is harder to learn than grazing. Primates play more than other mammals, because their way of life depends more on learning and less on fixed instincts than does that of other mammals. Human children, who have the most to learn, play far more than any other primates when they are allowed to do so. Play is the natural means by which children and other young mammals educate themselves. In hunter-gatherer bands, children are allowed to play and explore in their own chosen ways all day long, every day, because the adults understand that this is how they practise the skills that they must acquire to become effective adults.

The most important skills that children everywhere must learn in order to live happy, productive, moral lives are skills that cannot be taught in school. Such skills cannot be taught at all. They are learned and practised by children in play. These include the abilities to think creatively, to get along with other people and cooperate effectively, and to control their own impulses and emotions.

My bet is that Gove would agree that now, even more than in the past, creativity is a key to economic success. We no longer need people to follow directions in robot-like ways (we have robots for that), or to perform routine calculations (we have computers for that), or to answer already-answered questions (we have search engines for that). But we do need people who can ask and seek answers to new questions, solve new problems and anticipate obstacles before they arise. These all require the ability to think creatively. The creative mind is a playful mind.

All young children are creative. In their play and self-directed exploration they create their own mental models of the world around them and also models of imaginary worlds. Adults whom we call geniuses are those who somehow retain and build upon that childlike capacity throughout their lives. Albert Einstein said his schooling almost destroyed his interest in mathematics and physics, but he recovered it when he left school. He referred to his innovative work as "combinatorial play". He claimed that he developed his concept of relativity by imagining himself chasing a sunbeam and catching up with it, and then thinking about the consequences. We can't teach creativity, but we can drive it out of people through schooling that centres not on children's own questions but on questions dictated by an imposed curriculum that operates as if all questions have one right answer and everyone must learn the same things.

Even more important than creativity is the capacity to get along with other people, to care about them and to co-operate effectively with them. Children everywhere are born with a strong drive to play with other children and such play is the means by which they acquire social skills and practise fairness and morality. Play, by definition, is voluntary, which means that players are always free to quit. If you can't quit, it's not play. All players know that, and so they know that to keep the game going, they must keep the other players happy. The power to quit is what makes play the most democratic of all activities. When players disagree about how to play, they must negotiate their differences and arrive at compromises. Each player must recognise the capacities and desires of the others, so as not to hurt or offend them in ways that will lead them to quit. Failure to do so would end the game and leave the offender alone, which is powerful punishment for not attending to the others' wishes and needs. The most fundamental social skill is the ability to get into other people's minds, to see the world from their point of view. Without that, you can't have a happy marriage, or good friends, or co-operative work partners. Children practise that skill continuously in their social play.

In play, children also learn how to control their impulses and follow rules. All play – even the wildest-looking varieties – has rules. A play-fight, for example, differs from a real fight in that the former has rules and the latter doesn't. In the play-fight you cannot kick, bite, scratch, or really hurt the other person; and if you are the larger and stronger of the two, you must take special care to protect the other from harm. While the goal of a real fight is to end it by driving the other into submission, the goal of a play-fight is to prolong it by keeping the other happy. In sociodramatic play – the kind of imaginary play exemplified by young children's games of "house" or pretending to be superheroes – the primary rule is that you must stay in character. If you are the pet dog, you must bark instead of talk and you move around on all fours no matter how uncomfortable that might be. If you are Wonder Woman and you and your playmates believe that Wonder Woman never cries, you must refrain from crying if you fall and hurt yourself. The art of being a human being is the art of controlling impulses and behaving in accordance with social expectations.

Games over: there seemed to be an implicit understanding in the 1950s, when this photo was taken, that children needed lots of time and freedom to play

Play is also a means by which children (and other young mammals) learn to control fear. Young mammals of many species play in ways that look dangerous. Goat kids romp along the edges of cliffs; young monkeys chase one another from branch to branch in trees, high enough up that a fall would hurt; and young chimpanzees play a game of dropping from high up and then catching themselves on a lower branch just before they hit the ground. Young humans also play in such ways when free to do so. Why? Apparently, the slight risks involved are outweighed by gains. They are dosing themselves with the maximum levels of fear that they can tolerate without panicking, and they are learning to control their bodies in the face of that fear – an ability that may one day save their lives.

Children also play in ways that elicit anger. One youngster may accidentally hurt another in the rough and tumble, or negotiations about the rules of a game may fail, or teasing that was at first in fun may go too far. But for the fun to continue, the anger must be controlled. To keep the game going in such situations, the players must react assertively, to stop the offending behaviour, without physically attacking or throwing a

tantrum, either of which would bring play to an end. In this way, children learn to control their anger.

Researchers have raised young monkeys and rats in ways such that they are allowed other types of social interactions but are deprived of play. When these animals are tested, in young adulthood, they are emotional cripples. When placed in a moderately frightening environment, they overreact with fear. They panic and freeze in a corner and never explore the environment and overcome the fear as a normal monkey or rat would. When placed with an unfamiliar peer, they may alternate between panic and inappropriate, ineffective aggression. They are incapable of making friends.

Some people object, on moral grounds, to experiments in which young animals are deprived of play. What a cruel thing to do. But consider this: over the past 50 to 60 years, we have been continuously decreasing the opportunities for our own children to play. School became more onerous, as breaks were reduced, homework piled up, and pressure for high grades increased. Outside school, adult-directed sports (which are not truly play) began to replace impromptu games (which are play). Children began to take classes out of school, rather than pursue hobbies on their own. "Play dates", with adults present, replaced unsupervised neighbourhood play, and adults began to feel it was their duty to intervene rather than let children solve their own problems. These changes have been gradual, imperceptible, but over time they have been enormous. They have been caused by a constellation of social factors, including the spread of parents' fears, the rise of experts who are continuously warning us about dangers, the decline of cohesive neighbourhoods and the rise of a school-centric, or "schoolish", take on child development – the view that children learn more from teachers and other adult directors than they do from one another.

This dramatic decline in children's opportunities to play has been accompanied by an equally dramatic increase in childhood mental disorders. It's not just that we are detecting such disorders where we failed to look before; the increase is real. Clinical assessment questionnaires, which have been administered to normative groups in unchanged form over the years, show that rates of clinically significant depression and anxiety in US schoolchildren are now five to eight times what they were in the 1950s. Other research indicates that empathy has been declining and narcissism increasing, ever since valid measures of these were first developed in the late 1970s. There are even well-validated ways of assessing creative thinking, and research using these tools suggests that such thinking has been decreasing among schoolchildren at all grade levels over the past 30 years. All of these deleterious changes, accompanying the decline of play, are exactly what we would predict from our knowledge of play's purposes.

No, our children don't need more school. They need more play. If we care about our children and future generations, we must reverse the horrid trend that has been occurring over the past half century. We must give childhood back to children. Children must be allowed to follow their inborn drives to play and explore, so that they can grow into intellectually, socially, emotionally and physically strong and resilient adults. The Chinese are finally beginning to realise this, and so should we.