

To explore more deeply what play means at FS  
Keynote from Bob Hughes at FSA October 2015 conference

( NB this is not to be copied and is under the sole ownership of Bob Hughes):

## **"Play – The Challenges We Face"**

Introduction:

Children have been playing for millions of years, but it is only as recently as the 1990's that we have begun to get a really good idea about why we and many other species engage in this enjoyable but ultimately risky behaviour. And that breakthrough is only just in time. For about 60 years now play has been on the decline, and although there have been some practical attempts at revitalising it, these initiatives often become caught up in a quagmire of societal, ethical and bureaucratic neuroses, each of which threatens to reduce further the very phenomenon they want to support and see grow.

So what I would like to do today is make an attempt at exploring why those of us who work within play settings, need to tread carefully lest in our attempt to rescue and facilitate this important phenomenon, we strangle its incredible evolutionary purposes.

I've been a playworker for 45 years, operating provision for play and latterly working as a playwork theorist. However I am not an academic, and this is not intended to be a wholly

academic piece. But more a series of questions underpinned by evidence.

Reading Forest School's principles and aims, it is evident that much of what you do and the reasons behind what and how you do it, are mirrored in the playwork field. We also want to ensure that children have access to the elements for example, to nature and to risk, and like you we believe that those aspects of a practical agenda are good things, but other areas common to your practice and ours – the adult's role, interventions, H&S, who's agenda and so on, are more controversial and fraught with the problems inherent in //facilitating what is after all an evolutionary imperative in a social, municipal and legislative context.

What became an iconic example of vocational confusion is contained in a famous story that was doing the playwork rounds a few years ago when a very prominent playworker asked what his job was, answered, " To play with children". He answered sincerely and with conviction I'm sure, But to anyone who sees play somewhere on a spectrum of a child's absolute right on the one hand, and the facilitation of evolved behaviours crucial to survival, on the other, it is probably the most cringe-worthy answer he could have given, and from several perspectives probably the least credible.

How we define our function in the lives of the children we work with, what our interpretation of play is, whether we

edit or revise meaning or evidence for our own convenience, can leave our original moral rationales in shreds and render what we are trying to do vulnerable to criticism, and open to the accusation that we have an analysis of convenience that we can change as grant criteria or social norms change.

### **//Question One: Are children playing as much now as they were 60 years ago?**

Although it is difficult to prove, numerous voices including Gray (2011), and Hughes.(1996b) have serious concerns //about this assumption. In 1996, I wrote “because of a whole raft of social and environmental problems children are playing less, are playing outside less, or are increasingly only able to play in a context when there are adults present”. I suggested that this decline had been evident since the 1960’s, because it seemed obvious that as the volume of traffic increased, as roads began to dominate our environment, as building programmes put increasing amounts of wild space under concrete and as parents began to react against the increasingly hostile nature of the built environment, so the impact on children would be that they would have fewer wild places to go to, and thus fewer opportunities to meet and play with other children in them.

In 2011, Gray confirmed this saying , “Over the past half century in the United States and other developed nations, children’s free play with other children has declined sharply”.

Of course it depends on what you mean by wild space or //free, or wild play. I am using the term wild space to describe those areas which still contain traces of what John

Bowlby and Stevens and Price call the 'environment of evolutionary adaptedness, the EEA or ancestral environment. That is, those spaces that "marked our evolution as a species". Here we are talking about forests, woodlands, mini-wilderness, the wild hidden adult free spaces to which children naturally gravitate.

My use of the term wild-play however, does not necessarily mean play in these spaces alone. Rather it means play without an adult presence or direction, and most spaces can be used for wild play just as long as adults are not interrupting or managing what children do. Spaces away from adults best lend themselves to wild play simply because it is there that the language and behaviour that exemplifies play's diversity most effectively can best be manifested.

Gray uses the term 'free play' and defines it as "activity that is freely chosen and directed by the participants and undertaken for its own sake." He contends that 'free play's value for the psychological development of children depends on its "self-directed and intrinsically rewarding nature".

I agree with much of what Gray says, but would add the caveat that 'in the wild', ie when children do not have any adult neuroses or other adult issues to navigate, there is something different about the state they access when playing, to the one they access when adults are present, a difference which is crucial and yet so subtle that it is often over-looked – because it has somehow become normal for children to play whilst being overlooked or managed by adults. This difference in state which may be about the depth

of immersion they can access, or their increased sensitivity to sensory stimuli, is not a social phenomenon but bio-evolutionary in nature, and it is this fact, that play is a biological and not a cultural or social phenomenon, that we a/ all need to comprehend, and b/need to understand the implications of, if we are ever to truly successfully work with children when they're playing.

In short, being aware of a 'difference' between wild play and managed behaviour is crucial to being able to successfully navigate a role for the adult in the child's imaginal world. For I believe that important things happen during free/wild play, which do not happen when what should be play is being managed.

Play is the result of a deep bio-evolutionary drive. It is what it is, hermetically sealed, and children are driven by bio-evolutionary forces to engage in it. Because it is the result of a drive, it cannot be managed, or changed to suit society, as we will see later, to attempt that simply results in malformed play and malformed benefits. However, because play and natural play spaces are declining, we want to intervene, to help, but we have to be clear about what it is we are dealing with and how it can and cannot be treated

What this means is the subject of the next question.

## **//Question Two: Has play been important throughout our evolutionary history?**

*//Given that children in hunter-gatherer cultures still "play and explore freely, essentially from dawn to dusk, every day - even in their teens and by doing so acquire the skills and*

*attitudes required for successful adulthood*” (Gray 2011), we can assume that play has a fairly long history, and that is the //case. Burghardt (1998, 2005) tells us that play evolved over millions of years, and that it was, “most certainly a heterogeneous category” (p6) meaning that there have been and still are, numerous different kinds of play and that these //different play types each have “different causal bases, functions, phylogenies and ontogenies” (p 6), meaning that they evolved at different period in evolutionary time, for different reasons, to do different things “when” says //Burghardt, “a series of ecological, life-history, behavioural and physiological factors coincided”. (p 21)

//

So over evolutionary time, different kinds of play have evolved to address the different conditions that have prevailed. So it’s likely that play had and may still have an adaptive role, a role that enables the player to survive circumstances that may otherwise have been problematic or dangerous. Some of those ancient play types may well have disappeared by now, while others may still be active because the conditions they addressed is also still present, whilst new playtypes may have evolved to address new circumstances. So when we see children playing, one of the things we are looking at is an organism with its own agenda aggressively or at least assertively addressing live issues by playing with them. Originally these issues were probably survival orientated in nature – avoiding being predated on, avoiding being injured, finding water, shelter and food, protecting themselves from extreme meteorological change, or

earthquakes, volcanos and tsunamis for example. Thus the children of yesterday made it possible for us to be here today.

But enabling us to survive on a hostile planet is only one of play's jobs. As Gray states, it also provides children with //certain skills and attitudes essential to independent life. Perhaps more crucially however, it also acts to underpin those skills and attitudes by enabling the creation a flexible brain which is built for just that purpose.

So from very early on in human evolutionary history different playtypes were evolving. No one can say with accuracy what the reason for this was, except it may well have been to enable us to do something that supported our survival in some way, through the development of different ways of thinking and moving.

### **//Question Three: Did natural selection design play to shape brain development?**

Gray describes playing as “The extraordinary propensity”, and adds, “Wherever children are free to play, they do. Worldwide and over the course of history, most such play has occurred outdoors with other children”. (2011)

The five processes of play induced brain growth and organisation.

1. Playing during the 0 – 8 sensitive period generates over-capacity of neural tissue – see Huttenlocher.

2. Varying intensity of play generates more/less neural tissue. Rheostat effect.
3. Different movements during play prunes and shapes brain. See clay sculpting.
4. Different play routines + BDNF shapes and prunes different neural areas
5. Choosing specific playtypes + contemporary props determines final structure of brain is adapted to NOW.

For its first demonstration of its evolutionary prowess play takes advantage of a phenomenon known as the sensitive //period, during which “the performance of certain movements can alter development, as it does, for example in song-birds”. Playing during a sensitive period can affect human brain development in much the same way. Byers //(1998) puts it like this. “A sensitive period in behavioural development refers to a window in that development during which specific types of experience [in this case play] permanently alter the course of development of the brain.....”

Playing during a sensitive period – normally between the ages of 0 and 8 gives the child’s brain a huge neural capacity to learn and perform all sorts of tasks.

Here we look to Byer’s work again.

//“play is turned on when there is an opportunity for experience dependent modification of the brain, and is

turned off shortly after the architecture of the brain is complete”.

The use of the term architecture is intended to imply the deliberate shaping or pruning of the brain by the child. Byers //says, “The pruning is selective and experience dependent, that is, the types of movements a [child] performs determines which connections will be spared and which will not.” In one sentence Byer’s suggests a relationship between brain sculpting and the whole spectrum of playful movement.

Panksepp (2003) certainly thinks it is possible that a brain compound called (BDNF) may form a chemical bridge between different play routines and the shaping and organisation of different brain regions.

So play may be heavily implicated in brain development, but there is even more to this story than that.

//Over to Byers again:

“The idea” he says “is that natural selection designed play to shape brain development, and most likely they [children] are directing their own brain assembly,” when they play. (Byers, 1999)

- Natural selection designed play
- Play shapes brain development
- Players are complicit in their own brain assembly

What it is crucial not to miss today in this awesome  
statement is the phrase, “and most likely they [children]  
are directing their own brain assembly,” when they play. For  
here is a vital clue to what our role might be. For if children  
are directing their own brain assembly when they play, they  
need to be assured of an appropriate space for that to  
happen in, and as we have already found, good, diverse, wild  
space is disappearing. Thus if adults do have a role in play,  
then perhaps their input could be in ensuring the availability  
of that authentic environmental backdrop, with the  
enrichment and diversity that children need to access during  
play if it is going to be effective. But it also makes quite clear  
that it is the children themselves who must be left to direct  
their own play, that they are the best judges of what they  
need. The sub-text being that for these reasons, we should  
try not to interfere or think that we know best when it comes  
to playing, and we should avoid trying to teach or socialise or  
enforce an agenda that dictates the what, how or why of  
what they’re doing.

What this reinforces again is how important it is that the  
child is in the play driving seat. For only she knows how to  
play, how to avoid cutting corners, how to allocate enough  
time, and how to ensure that she engages in every single kind  
of play – what are known as Dionysian as well as Apollonian –  
even though we might view some of them as messy, cruel,  
violent or sexual, and try to stop her engaging in them.

The evidence is compelling that play has a hugely important role in brain growth, structure and function. To me there is little doubt that there is something very special about movement in play and these neural attributes. Secretion of the neurochemical BDNF may well be affected by different movements that govern where it is necessary for brain growth and/or pruning to take place.

But although wild play is hugely powerful, it is very fragile too.

#### **//Question Four: Is it detrimental to mental and physical health to be deprived of wild play?**

Play deprivation is perhaps the most frightening and dangerous experience a child can know, marooned in a twilight zone without grounding or certainties. Chronic play deprivation has a catastrophic impact :

**//It creates incomplete or damaged 'play' outcomes** – fear of risk and an inability to risk assess, inflexible, poor social skills, inability to problem solve, clumsy, ie poor coordination, poor cortical map making, inability to 'role with the punches' (Hughes 2013)

**It creates an increased vulnerability to various childhood pathologies** – anxiety, depression, helplessness, narcissism and suicide (Gray 2011)

**It creates extreme play deprivation symptoms** – aggression, misery, psychopathologies, (Brown 1998, Huttenmoser and Degan-Zimmerman 1995).

From this we might conclude that play deprivation undermines the very essence of what it is to be human and humane. And as children play less, the probability of being affected by play deprivation only increases.

It is difficult to convey the gravity of play deprivation. It is only when you hear stories of play deprived behaviour that its seriousness hits home. Take for example Charles Whitman. In the 1960's student Charles Whitman killed 17 fellow students and wounded 31 others, on the campus of the //University of Texas at Austin.

//Investigators concluded, "his inability to find coping techniques through play....were striking findings agreed upon as extremely significant". They weighted ... playlessness as one of the major factors placing him and his future victims at risk".

What is unique about play is that it appears to be anticipated by the human organism, in much the same way as we all anticipate oxygen in the air. And like the absence of oxygen, if play is not there when it should be, then the human organism //seems to go into what Stanislav Grof called an 'agonising existential crisis'.

//Fox (1989) articulates what this might mean, "[Our brain]" he says, "is not an organ of cool rationality: it is a surging field of electrochemical activity replete with emotion and geared for a particular range of adaptive responses. Force it to try to work outside of that range for long enough and it will act, it

will rebel. It will regress to those pristine behaviours (including the very necessary aggressive ones) surrounding its primary functions, survival and reproduction.

So to play, wild play, is critically important to human children. But if for whatever reason they do not play, then they are increasingly vulnerable to the symptoms I have itemised above.

So the down-side of playing is not playing, which may simply mean only going through the motions but not being in control. The impact of just this loss of volition, could be highly problematic to some children.

This brings us to another question.

### **//Question Five: Does play have to be wild?**

My intuition tells me that PLAY routines that bring about certain biological change in the child - can only be wild, there is no other play. When Gray talks about the phenomenon of play, he contends that 'free play's' value for the psychological development of children depends on its "self-directed and intrinsically rewarding nature". He wrote about hunter gatherer children playing out all day. My generation did that too, and was probably one of the last to do so en masse.

From the 1950's onwards, as play in the wild began to lose ground, groups in society began creating artificial 'play' spaces for children to play in – adventure playgrounds, after school clubs and so on.

At the start, children were offered a good approximation of what children had been able to do in the wild, but by 1970's/80's, in what almost seems an almost pathological reaction to the freedoms and power children had once enjoyed, sought to introduce measures to tame them. In just a few years adventure playgrounds and other play orientated provision was awash with draconian anti-wild play policies H&S, anti-Bullying, Sexism, Privacy, Racism, Child protection, along with increasingly artificial, risk and element-free commercial style environments, and adults who's gaze was on what parents and politicians wanted rather than what they knew children needed. One could be forgiven for asking, "What did children get out of this?" Or perhaps more pertinent, "Did they still get the bio-evolutionary benefits enjoyed by previous generations from millions of years of wild play?" In other words, was this really play with its links to brain growth or was it false behaviour that rendered children more vulnerable to the effects of play deprivation rather than less?

Although a direct relationship between exclusively 'wild' play and brain growth may be difficult to prove, it is clear that the source of most of these data I have quoted has come from studies on species in the wild, not in captivity. And given Gray's description of hunter gatherer play, it doesn't take rocket science to speculate that something biologically unique may happen when children are in control and free, that doesn't happen when they are not.

## //Question Six: So, is our job to play with children?

Never say never. As usual, there are always exceptions to the rule, and where children are withdrawn, lonely or traumatised we might well intervene by 'flying in parallel' or even offering a direct invitation to play, but this is the exception, unless we are working in a dedicated therapeutic setting.

In my opinion, for all the reasons given above, our job is not to play with children. It is the children's job to play with each other, and adult intervention at that level can only have the effect of reducing the impact that the experience has on the child.

## //Question Seven: So what is our job?

We can see from what has gone before that to guarantee children a wild play approach to their interaction with the wild environment, presents us with serious challenges, not least from parents, funders and politicians. The expectation from them is that the interactions children have with the environment or one another, be that the natural environment, or an artificially created one, conforms to some kind of socially acceptable paradigm, which probably means considerable intervention. Recently a playworker told me about stopping children swearing, a good example of the interface between wild and domestic that I am identifying as presenting difficulties for the child. To the playworker, swearing may be simply inappropriate language that won't

be tolerated by adult society, but to the child what we term swearing reflects its culture and its communication code and it symbolises its freedom. It begs the question, Who are we doing this for, what are we doing this for?

So to wind this up, what are the challenges we face? I identify //at least five different areas.

- Do we provide for 'wild' play ?
- Do we ensure the absence of adult driven agendas?
- Do we ensure a comprehensive and diverse experience
- Do we ensure that the child is in the play driving seat?
- How can we do these things in a sceptical social, municipal, legislative, professional and litigious context?

I won't go into these any more than this as I understand you may be discussing their implications in break-out. Suffice it to say this:

If we genuinely want to provide authentic playful experiences for children, whether in wild areas, or urban //spaces, it is a mighty challenge, "Does the experience we are offering children allow them to immerse themselves freely and totally in what that experience represents to their biology?" What that implies is graphically demonstrated in this paraphrase from Stevens and Price:

*//"When a child enters the woodland, she brings with her, a crowd of people and creatures from her ancestral past. The hunter-gatherers, primates, other mammals, anteaters, and*

*reptiles. Eventually, the woods are filled with this menagerie, each member of which has a right to be listened to, and if possible, to have her play needs fulfilled.”*

Thank you for listening.