

Purposeful play: what we might mean by creativity

You will note the element of doubt in this title...what we *might* mean by creativity.

I've chose to focus on the middle of our three possible definitions: "the inner freedom to play to a purpose" because for me the notion of play is so appealing, with its suggestion of innocence and simplicity, of open-mindedness, the idea of stripping away rules and restrictions rather than building them up.

The word 'creation' itself takes us back to beginnings in innocence, to origins, and we should remember that the word 'original', so often linked to creativity, can mean both 'novel and innovative', in the modern sense, and 'a going back to the origin, 'getting to the essence of a thing' in a more ancient sense. One of the dictionary definitions of 'creative' is "characterized by sophisticated bending of the rules and conventions" – now the example given in the dictionary is that of "creative accounting", but I'd argue that sophisticated bending of rules and conventions is exactly what's going on in most creative processes!

But putting a finger on what creativity *is* proves a hard task, even for those generally seen as the best exponents of it:

Edward Albee said: "Few sensible authors are happy discussing the creative process - it is, after all, black magic, and may lose its power if we look that particular gift horse too closely in the mouth." In his TS Eliot lecture, poet Don Patterson also spoke of poetry as "a dark art"; and, of course, there is that mysterious element attached to creativity, which is incredibly powerful.

So, in trying to define creativity we should be wary of definition. Though it is valuable to have dialogue about aspects of the concept, in some ways tying the term down too much goes against the dynamic of creativity, which is all about thought unfolding in the thinking.

Novelist E.M. Forster famously said: "How can I know what I think, till I see what I say?" and this captures that happening, dynamic, aspect of creativity that refuses to be pinned down in advance. All creativity is a process of discovery, which necessarily starts in innocence, in not knowing, because if we *think* we know, we have preconceived ideas about the outcome that might shut out the inspired thought we want. And creativity does not shut out anything, initially.

So, even in choosing to focus on the definition 'the inner freedom to play to a purpose' I am including all the very helpful notions in the other definitions... because creativity is never exclusive... And for me the inner freedom to play allows the mind

to come up with ideas that are novel, surprising and valuable, by helping us to suspend our beliefs in order to imagine new ways of doing things. So, I would argue that these three definitions are intricately linked, as we shall see...

Einstein said: "The pursuit of truth and beauty is a sphere of activity in which we are permitted to remain children all our lives."

And Freud made a definite link between creativity and childhood play:

Should we not look for the first traces of imaginative activity as early as in childhood? The child's best-loved and most intense occupation is with his play or games. Might we not say that every child at play behaves like a creative writer, in that he creates a world of his own, or, rather, re-arranges the things of his world in a new way which pleases him? It would be wrong to think he does not take that world very seriously; on the contrary, he takes his play very seriously. ¹

This re-arranging of things lies at the heart of all discovery and innovation. Before a scientist can move a theory forward, he or she must imagine knowledge looking different to the way it currently does, a designer must imagine a combination not yet tried, in the same way that a writer imagines a scene in a novel, or a child imagines himself scoring a penalty to win the World Cup for England. As Freud rightly noted, this is serious play, because this is where we find that inner freedom to learn essential truths about ourselves and our world, which in turn allow us to recognise possibilities for change.

This apparently contradictory notion of 'serious play' takes us to the heart of creativity. Because we can identify two distinct stages to any creative process – firstly the initial inner freedom where we untie ourselves from rules and expectations, where we leave behind what's already known and imagine what might be – this is the time and place where disparate things might meet and combine in unusual ways, and is often almost pre-verbal; with ideas flooding the mind in the form of visual images.

Then, there's the second stage of stepping back, of casting a critical eye over the ideas we've had, of bringing the purpose back into focus. This is the writer's editing process; the scientist's testing of data; the designer's consideration of implications for practical application. This is often the stage where we become more aware of language and of forming those visual images into coherent thought for communication to others.

In his work on the neuroscience of creativity, Antonio Damasio defines some characteristics of the neural system that are needed for high levels of creativity. The first is the strong generation of representational diversity – the ability to bring to the conscious mind a variety of new combinations of things as images. Many will be

discarded because they aren't relevant, but in the best creative brains, there will be plenty to choose from, these images will be generated in abundance.

Another requirement is *working memory*. Damasio identifies this as what allows us not only to retrieve these images, but to hold them actively 'on-line' and work on them, to rearrange them in space, and recombine them into new forms. ⁱⁱ

So, not only is there a need to generate novel images and combine disparate things; there must also be the ability to decide between them, and communicate them. As the American cartoonist Scott Adams said: "Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep."

Language, of course, is intrinsic here at all levels. In mapping the hierarchy of the nervous system functions that distinguish man from other species, Karl Pfenninger identifies language (unsurprisingly) as the step on the ladder that sets us apart. Beneath it, learned behaviour and memory is shared, for example, with canines that can learn the sophisticated tasks of a guide dog. From language, though, intelligence leads us to the rung at the very top of the hierarchy: creativity. ⁱⁱⁱ

So, language is that which links us, practically and biologically, to creative thought. But it can bind us too. Exploration, innovation, communication are key processes in any creative act – and are all carried out in and through the medium of language.

Sociologist Erving Goffman identifies the constraining effect of linguistic communities – the peer groups that we inhabit as academics, as members of a department, as contributors to a working team, that are unconsciously ruled by conventions which embed themselves in language, acting to 'frame' us. In order to be creative, then, we need to break the frame. ^{iv}

If we think of words invading us like a virus, we can easily become immune to those that we are exposed to constantly.

The artist A P Ryder said: "Have you ever seen an inch worm, crawl up a leaf or a twig? And then clinging to the very end, revolve in the air, feeling for something to reach something? That's like me, I am trying to find something out there beyond the place on which I have a footing."

Playing with language can help to shift people into territory where they no longer have a secure footing, a place in which they can discover new ways of saying, seeing and doing things.

A good example of this is a workshop devised by the poet Cheryl Moskowitz, who teaches in the Centre for Continuing Education at Sussex. This was a family project that brought together parents and children who were experiencing difficulties communicating with each other. The workshop was based around the story of the

Christmas truce during the First World War, and both the adults and the children acted out roles of English and German soldiers putting down their weapons and coming together on the no-man's-land between the trenches to shake hands, trade tobacco, share family photos, even to play football together. They were asked to write a short poem about how they were feeling before the ceasefire, and then another about how they felt afterwards. Putting them into a playful situation where they could become another character allowed them to move outside their usual roles, and so gave them the inner freedom to speak about emotions in ways in which they wouldn't normally. The result was some incredibly moving communication between people who essentially knew each other very well, but who had lost the ability to get past what had become habitual ways of talking.

One of the really valuable ways I can see this happening in terms of the potential work of the Creativity Centre is through the development of interdisciplinary projects. We can learn so much from other disciplines! As I've said, academic specialties, departmental clusters, and peer groups are often unconsciously bound by their conventions, and moving into another environment can do two things: highlight our own habits and suggest new ones – a bit like that Inch Worm needing new space to explore, beyond where it has a footing! What is everyday language to a team in a design environment is a whole new vocabulary to a biologist, and vice versa.

So, if creativity is bringing together disparate things, it also means bringing together people and disciplines that would not normally cross paths. In the poetry world, mixed media collaborations are exploring ways in which technology is shaping how we think about, and speak about, experience, through the use of digital poetry and collaborative video, photographic, and sound installations. Collaboration between writers and scientists is a growing area, and one that is attracting Arts Council and Nesta funding.

These collaborative relationships are a real win-win situation, a two-way process, which can help scientists promote their work to new audiences, and provide artists and writers with a rich source of ideas and media in which to explore how we make sense of our lives. I've found a lot of inspiration for my own work in science, and I'm very interested in breaking down those barriers that we assume form frames around the distinct disciplines of art and science. Jonathan Hare of the Creative Science Centre here at Sussex and I have piloted a combined poetry/science workshop for schools, as a way of trying to do just this. I think it's great to encourage work across subject areas in schools because children often come to think of themselves as good at art OR science, but often not both, and those early ideas can stay with us throughout our lives. Jonathan was already running a brilliant workshop teaching

students about the BuckminsterFullerene or (C60), an allotropic form of carbon discovered by Sussex scientists, for which Harry Kroto won the chemistry Nobel Prize in 1996. When I found out about these workshops, I thought it would be fun to introduce an element of poetry into them, offering an extra angle from which students might come to understand the C60, by imagining what it was like to be a C60, and writing about that. So Jonathan and I piloted the workshop with a group of year 7 pupils at Angmering School's Science Club. At first many of them felt quite unsettled being asked to write poetry and there were quite a few protests of: "I don't do poetry", especially, I think because they had come along to a science club, not an English club, so they weren't expecting poetry! Yet, those same pupils came up with some really original ideas!

That's an important aspect of inter-disciplinary working, I think, breaking those frames that we attach to the words 'science' and 'poetry', and the assumptions they lead us to make about ourselves, our strengths and what we are capable of doing.

So, there are lots of opportunities, and I would love to see the Creativity Centre operating as a point of co-ordination, generating and supporting just this kind of project across a range of disciplines and settings: in academia across design, technology, art, and science; in the business sector across departments and divisions to promote management skills, team building, and innovation; in schools and colleges; and in healthcare settings: these are all places in which we live and learn, in which we fall under the influence of language every day, often bound by the conventions of our own little linguistic community.

All of these places provide endless opportunities for people to benefit from the purposeful play of creativity...

Notes

ⁱ Sigmund Freud, "Creative Writers and Daydreaming" in *The Complete Psychological Works Vol IX*, (London: Hogarth Press, 1959) 143-144

ⁱⁱ Antonio R Damasio, "Some notes on brain, imagination and creativity" in *The Origins of Creativity*, Karl H Pfenninger and Valerie R Shubik eds., (Oxford: Oxford UP, 2001) 64-65

ⁱⁱⁱ See Karl Pfenninger, "The evolving brain", in *The Origins of Creativity*, 89-97

^{iv} See Irving Goffman, *Frame Analysis*, (Boston, Mass: Northeastern UP, 1986)