

WEEK 3 MEDICINE & THE ARTS – ART AND THE BRAIN
ART AND PLAY

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Art and the brain, there's a lot that can be said about it, but I'm saying just two things. I think these are the two most fundamental things that a neurobiologist can say about the arts.

I've said, firstly, that art embodies value. Now I want to say that art is not real. By that, I mean it's not life.

It's about life. It represents life. It evokes life. It imagines life. It reflects on life.

It's a sort of "as if" kind of life. That's what is different about art, as opposed to life. It's the lack of reality. It's the not realness about it.

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Now where does all of this come from? From an evolutionary biological point of view. There are different basic instinctual emotional systems which are tools for living, tools for surviving and reproducing. These are really fundamental basic essential things, terribly important.

Among these different instinctual emotional systems like fear and anger and sexuality and so on, one stands out for me as being the most relevant for art, and that is, an instinct to play. People are often surprised to hear that there is an instinct to play. And this is not a uniquely human thing.

Mammals play. They need to play. If you deprive a juvenile mammal of half an hour's play today, it'll make up that half an hour tomorrow. It's an almost homeostatic need of young mammals.

The question is what is this for? It clearly is for something very important. That's why evolution has selected it in.

Another way of putting the fact that it's important is that it's terribly pleasurable. Ask any kid, what do you want to do? What do you like doing most? They'll say, play! And when you say, why? They say its fun!

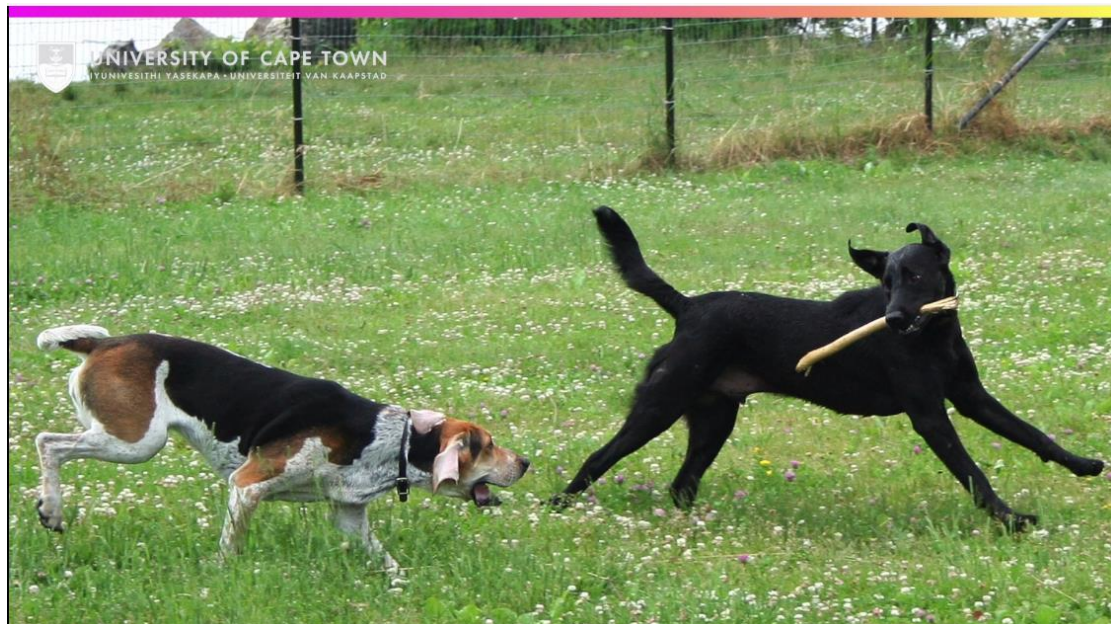
Why is it fun? Why has nature rewarded play so much and made it so pleasurable? What is it that it's doing for our survival and our reproductive success that's so terribly important? And remember, what I'm saying is that this thing, whatever play is about, is something fundamental to what art is all about.

I think that we can begin to answer the question, "What's it all for?" by observing this surprising fact that although kids want to play and enjoy playing so much, if you actually empirically observe play episodes, a sufficient number of them, what you see is that most play episodes end in tears. So although they want to do it, although it's such fun, actually, the most common outcome of play is crying, coming back to Mommy, getting cross, fighting with your friend, and not wanting to play anymore, because it's no longer fun.

Another fundamental inference that we've drawn from observing play episodes is what we call the 60/40 rule. It's not always exactly 60/40. It depends which type of mammal you're talking about.

But in the kind of play that all of us mammals do, the prototype for play, which is rough and tumble play, when one mammal chases the other one. you know how the whole thing works, the dog wags its tail and goes down on all fours like this. And this invites the other dog to play. It quickly recognises, ah, this is play, or cats, or rats. We all do it.

DOGS PLAYING



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And then what they do is the one chases the other. The one jumps on the other one's back. It turns it over. It tickles it. And then you take turns. Do it the other way around.

The 60/40 rule applies to this taking of turns. Normally, you put two mammals together, sorry to say this, but normally, what happens is that they form a submission-dominance hierarchy. One of them tends to be the one who's on top, the one who's doing the chasing more than the other. This is fine. It's still fun for the submissive one, as long as they get to be chasing and get to be on top a sufficient amount of the time, roughly 40% of the time.

If the dominant one tries to be on top 70% percent of the time, 80% of the time, all the time, then it's not fun for the other one. And they won't play anymore.

So, we begin to infer from this something about how play works. It's something about finding the limits, finding what can I get away with? How much pleasure am I allowed to have? How much of this exuberant joy of being chasing and being on top and tickling and being the active one, and so on, how much of this am I allowed to get away with? How much do I need to let the other one do?

What happens when the play episode stops is that you find that limit. Then it's not play anymore. And what happens is it becomes something other than play. Usually it evokes one of the other basic instinctual emotional systems, so that rather than it being fun, it becomes scary. Rather than feeling joy, one feels anger.

CHILDREN PLAYING



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And you think about all the games that, with us humans, we can actually talk about. So with animals, we just see the rough and tumble. And as I said, humans do that too. But with humans, we also see the elaborations in their minds of what they're doing.

What they're doing in the chasing is I'm a cowboy. You're an Indian. Or I'm a cop. You're a robber.

Or I'm Mommy. You're a baby. Or I'm the teacher. You're the pupil. I'm the doctor. You're the patient.

There's a sort of a hierarchy built into all of this. It's a bit creepy, but that really is evidently what happens. And again, it's the finding of that limit.

The important thing about play is that I'm not really a doctor, and you're not really a patient. I'm not actually operating on you.

If I were to really, if it was to transform from play into reality, then it would be bullying. It would be I'm imprisoning you. I'm actually trying to shoot you. This is not "playing doctor" doctor, this is sexual abuse.

That's the transition from play into one of the other instinctual systems. And as I'm saying, it's this transition into reality, as opposed to play, which is fundamentally what play is for. It's seeing how far can I play? How far can I test the limits? Where do I have to take account of the views of the others?

And this is how the social group is formed, how the social group is regulated. And we humans, as all mammals, are social animals.

So what I'm saying is that this is what play is for. This is what the imaginary not real safe space of play is for. It serves this very important function of imagining, of trying out, of "as if," testing the limits. But ultimately, the rules are established. And then it's within that framework that society can operate.

I don't, I say again, I don't mean that all of art can be reduced to this. Of course, that would be absurd. But I'm saying that this is something fundamental about what art's about. This is something fundamental about the role that the artist plays in society.

In mammals, as they grow up from the juvenile into the adolescent phase, so play becomes more competitive, becomes more clear that this is about establishing the pecking order, seeing who's top dog, who's king of the castle, who's dirty rascal. And I'm afraid something like that happens in the art world, too.

When I said earlier that art is about value in the aesthetic sense, it ultimately also becomes about value in a competitive sense, who's better than who? Who's more successful than who? Whose artwork is more expensive than whose? This is also where we find the limits of art just as we find the limits of play in relation to the rest of life.

So, art and the brain, there's a great deal that can be said. I'm saying two things. I'm saying that art embodies values. And I'm saying that art is not real. And I think that looking at these two things from a neuroscientific point of view enables us to see these two fundamental properties of what art is in a slightly different way.



Marc Solms, 2015

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