## WHAT IS A MIND? UNIVERSITY OF CAPE TOWN



## **WEEK 4** ANSWER TO QUESTION 3 STEP 5.3 ASK MARK

OK, here comes the third question: "What happens in the brain when there's no seeking intention and no relationship to survival and reproduction, simply unanticipated pleasure? I'm thinking of listening to music and staring at a flower. These pleasurable experiences give meaning to life in a spontaneous way, without any intention being attached to them in a cognitive sense."

Well, I certainly agree that we: thank heavens we have unanticipated and unsought after pleasures, hopefully every day. The important thing to remember here is that once these mechanisms are built into the brain, they can be triggered in all sorts of ways. They may be, as it were, designed to fulfil a certain biological purpose, but it doesn't mean that only that biological purpose is going to activate them.

So, you have pleasurable mechanisms attached to a certain kind of looking which may be, for example – and here I'm just talking hypothetically – a certain kind of pleasurable looking. For example, a sexual looking: to be able to recognise this form I find desirable. And you can see how that might be related to reproductive success. Or, the colour of a ripe fruit, and you can see how that might be important for survival. But if that sort of shape or that sort of colour is pleasurable for that biological reason, it will also be pleasurable in general, and you can generalise from there. You get the point that I'm making.

Perhaps the best way to illustrate the point, though, is with reference to addiction. We have mechanisms in our brains – I've referred to the seeking system, this dopamine system – which makes us engage with the world in a curious, enthusiastic, interested, anticipatory sort of way, and this serves foraging. This is very important for survival and reproductive success. But a drug addict – a cocaine or amphetamine addict – stimulates that very same system in order to get the rush for no biological purpose. In fact, in this case, it's an anti-biological purpose – it's positively not good for you, cocaine.

So you see how the system can be abused, as it were, or can be recruited into all sorts of activities which are not only not designed for survival and reproductive success, but might in fact be counterproductive in those regards. But because the mechanism is there, it can be used.

In fact, here's an opportunity also to make another important point. This is the point about reproductive success. Obviously, in an animal species, reproduction is absolutely crucial. The whole way in which genes get passed on is through reproduction. This is why sexual intercourse is so terribly important biologically. We have brain mechanisms, therefore, which drive us to 'do it' to each other.

But, what about homosexual sexual relations? They're obviously not designed to reproduce. And in fact, if I think about my own sexual life, I'm not thinking "I better do my biological duty now and reproduce." What I'm thinking is "I want to do this because I like it." So what motivates me is the pleasure. Again, this is an instance of what I'm talking about: the mechanism is there – evolution designed it for its own reproductive purposes – but that doesn't mean that we – me included – use it only for the purpose that biology placed it there.



Mark Solms 2015

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