

Week 2 Answer to Question 3

Step 3.3 Ask Mark

So we move on to question 3 for this week, and it reads like this:

Question 3: do you agree that damage to the limbic system can make a person incapable of making decisions, thus showing the key role of feelings in decision-making?

The premise of this question is that the limbic system, a part of the brain, generates feelings. And in a broad sense that's true - the limbic system is a very important part of the emotional brain, that is to say the affective brain, the part of the brain that is involved in the generating of feelings - but I must just add, it's not the only part of the brain in which feelings are generated. There are upper brain stem structures which are perhaps more fundamental to the generating of feeling states than the limbic system, but certainly the limbic system is included.

Secondly, I want to say that probably the questioner is referring to the studies, the well-known studies of Damasio done in the nineteen-nineties, in which he demonstrated - I think it was in his book "Descartes Error" that this research was popularized - he demonstrated that a patient with damage to the limbic parts of the frontal lobe, that is to say not the limbic system proper, but rather the cortex to which - or some of the cortex, an important part of the cortex to which the limbic system projects, namely orbital frontal cortex - patients with damage there have nothing wrong with their cognition in the sense that they're perfectly capable of reading and writing and speaking and calculating and solving logical problems and so on, and yet they make a hash of their lives in terms of real-world problem solving.

There's - therefore - in fact, this led to, in the old days - in the nineteen seventies and even the early eighties, which is when I qualified in this field - there was this puzzlement in neuropsychology how come these patients perform so well on IQ tests, and yet they cannot make real-life decisions, they cannot do what's in their own best interest, they get themselves into all sorts of trouble all the time because they show such bad judgment, and make such bad decisions. And the answer to that question was precisely what's being referred to here: that although they are cognitively intact, in other words although their logico-grammatical thought processes - the machinery for thinking and reasoning - are intact - is intact - the emotional basis upon which

decisions are made is not intact. These patients do not have access to the feeling states, or do not properly link feeling states, or properly inhibit and constrain feeling states, in relation to their decision-making processes. And Damasio's point at the time was: you make a mistake in neuropsychology by leaving affects out, by leaving emotions out. By thinking that we are merely cognitive machines like computers is to miss an essential point about how decision-making really works. In the real world, in real life, we living creatures make decisions with reference to feelings.

And so to the extent that that's true - which it is - to that extent I agree with the questioner. In other words I'm just qualifying what I'm saying, I'm making clear that it's not only the limbic system, and I'm making clear that, in fact, the literature that's being referred to pertains to limbic frontal cortex, rather than the limbic system proper. But nevertheless the underlying point that's being made - which is that feeling is important for decision-making and therefore for real-world problem solving - is absolutely correct. I want to emphasize one aspect of this, which is that: it could not be otherwise.

If you think about it, how can you make decisions without a value system? How can you know whether something is better or worse unless there's a scale by which you determine what "better" and worse mean? And an absolutely essential point that I'm wanting to make in this course, is that that scale of values - that value system which underpins mental life - is affect, is emotion, is feeling. Feelings - good and bad feelings - are the value system of us living creatures, at least of us humans, and - as I'm going to argue in this course - of a lot of other creatures besides.

So the capacity to feel is an absolutely fundamental evolutionary advance that distinguishes us from, for example, computers. Computers, like the frontal lobe patients that Damasio studied, have perfectly intact logico-grammatical information processing systems, but they don't attach those logico-grammatical information processing activities to the values - they don't properly connect them to the value system - that feelings represent.

And so, to put it in a very simple sort of way, you know if you're trying to decide am I getting closer or further away from my destination, you feel anxious if you're getting further away, you feel lost, this feels bad, this is not good, I'm not getting there. That's how we know how we're doing, that's what feelings are for. They tell us how we are doing within a biological scale of values. And when I say a biological scale of values, I must remind you that feelings - pleasurable ones - mean what you are doing now is ultimately in your biological interests, in the sense that it enhances your chances of surviving and reproducing.

In the very most basic sense, that's what biological values are. So pleasurable feelings mean this is good for my survival and reproductive success; unpleasurable feelings mean the opposite: this

is bad from the point of view of biological values. That doesn't mean that the whole of human mental life can be reduced to those simple values - far from it - but that seems to be the most elemental form, and then we have much more complex forms built over that which I'll be telling you about in weeks to come. So that's my answer to question 3.



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