

Phenomena of the Mind

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Michael Egnor:

Welcome. Welcome back. This is Dr. Michael Egnor from Mind Matters News. I'm interviewing Dr. Andrew Newberg, who is a pioneer and authority in the field of neuro theology. He studies brain activity in the context of spiritual experiences. Welcome again, Andrew.

Andrew Newberg:

Thank you.

Michael Egnor:

One thing we had spoken about a little bit in the last segment, which you mentioned is absolutely fascinating, is the impression that people have when they have spiritual experiences, that there is a greater reality to the spiritual experience than there is to their ordinary waking life, and that's a hallmark. In many situations, people can't even find words for it. And many of the great mystics have made it clear that they can't really describe what they experience, but that what they experience is more real than anything they can describe. And people who have near death experiences very often say that what they experienced was far beyond, and if you think about it, the near death experience if indeed it is associated with a lack of activity in the brain is an extreme example of what Thomas Aquinas or even Aristotle would say is an immaterial experience of the mind. It's an experience of the mind that is not material, that doesn't come from the brain.

Andrew Newberg:

Right.

Michael Egnor:

So an absolutely fascinating insight.

Andrew Newberg:

Well, and the study of near death experiences does, here's where a kind of neuro theological approach could have some really powerful, paradigm shifting implications. And a colleague of mine has actually been trying to do some more formal research looking at these experiences that obviously, as you mentioned, they tend to occur when people are near to death, obviously the name. And so the idea of trying to corroborate what are well known, probably thousands of anecdotal stories of people describing the room, describing maybe a patient in another room. If we can really try to validate that scientifically, that could be quite fascinating. And there are fairly elegant ways of designing a pretty simple study where if we go to trauma bays, if we go to cardiac areas where we know that there's a high likelihood of people who will be close to death and then find out who that happened to, find out who may have had a

near death experience, and then be able to challenge them by asking them specific questions, maybe having certain things in the room.

Andrew Newberg:

One thought has been to have a shelf above a bed with some kind of picture on the other side. So like a picture of the Eiffel tower or something like that. And of course, if they said, "I died, I floated up to the ceiling and then I saw this picture of the Eiffel Tower." That could go an incredible long way of trying to prove that there is this immaterial soul, consciousness, whatever that goes beyond what the physical body is able to do. And so, if we're creative about how we think about some of these studies, there could be some really fascinating opportunities to expand the way we really do think about the world, the way we think about ourselves and how we understand ourselves. Cognitive neurosciences you were sort of alluding to earlier, is kind of trapped in this very materialistic perspective, which I can appreciate and there's certainly a value to thinking about things that way.

Andrew Newberg:

And I know with your background, obviously doing surgery on the brain and helping to quote unquote, fix people who have brains with Parkinson's or Alzheimer's, or a stroke or something like that can be absolutely essential to helping people. But that doesn't mean that that's all we are. And trying to find that other part of ourselves, there may be some really intriguing ways of trying to do that.

Michael Egnor:

When I began, when I was at interested in neurology and neurosurgery as a medical student, and subsequently in my career, I initially thought that I would gain a very deep insight into the soul, into what it meant to be human by studying the brain. And I've come to realize that there's much about us, that doesn't show up in the brain. And that the brain is an organ like any other, and it's an organ that allows us to perceive, allows us to remember and to move and do things like that and to have emotions. But that there's a very large part of human experience that doesn't seem to come from the brain.

Andrew Newberg:

Right.

Michael Egnor:

The brain's involved in it, but it doesn't come from it, and I've become passionately convinced of that. And that's one of the reasons why I've embraced Thomistic psychology, is that I think St. Thomas had the explanation that best fits what I've seen in 35 years.

Andrew Newberg:

And, even one of the things that I challenge my students on, even if one takes a very materialistic perspective, it becomes, I guess, and the world of consciousness studies the hard problem of where does consciousness actually come from? And I say, well, look, if you take up materialist perspective, you've got sodium and potassium ions rushing across the nerve membrane. You've got blood flow, you've got metabolism, you've got electrical activity, you've got neurotransmitters crossing synapses. So where in all of that is our thought? Where in all of that is our consciousness? And how does one understand that? And it's really, obviously it's a fantastic mystery, but that's also where I guess, I personally feel that just taking a scientific perspective obviously becomes limited based on what we

were just talking about, having only a kind of philosophical or theological approach may miss the biological piece of it.

Andrew Newberg:

And so, that's where I kind of keep coming from in terms of maybe this kind of integrated approach that looks at finding pieces of both, the science as well as the spiritual. Can that push us down the path a little bit more in a way that we've never been able to do before? I don't know if that will ultimately lead to the answers, but at some point I feel like, there is something about trying to find how the material and the immaterial work together, and without being dualistic. And maybe it even has a sort of analogy to the quantum mechanics of my late colleague, Jean [inaudible 00:07:03], and I wrote an article called *Consciousness In The Machine*, and we kind of argued that ultimately, the brain and consciousness are sort of like two ways of looking at the same thing.

Michael Egnor:

Sure.

Andrew Newberg:

And much like, looking at a particle and a wave are like two ways of looking at the same thing. So, and now I'm not saying that we're relying on quantum mechanics to answer that, but that sort of analogy of, we tend to say, maybe when we look for, if I do a brain scan, I will find a brain change. And if I look for the experience, I will find the experience. And so maybe they are different ways of just looking at the same thing. But again, these are the kinds of challenging questions for us to pursue and to look at where we can take the science and where we can take our contemplative processes to help us elucidate an answer to those questions.

Michael Egnor:

The positive experiences, spiritual experiences that you've described are absolutely fascinating. There are however, quite a few negative spiritual experiences that people have.

Andrew Newberg:

Yes.

Michael Egnor:

Anything from losing one's faith, to sin, even to demonic possession, things like that. Have you had a chance to study that, or is that something that you would like to study?

Andrew Newberg:

Well, definitely something I would love to study, we have definitely thought about it. In our survey, we certainly found that while 95% of people, it's an overwhelmingly positive experience, there is that small percentage of several percent, five percent or whatever who have experiences that are negative. And of course, as you mentioned, then there's even sort of the more obvious, joining cults, terrorists, what is it about going to the ISIS website and saying, "Gee, this sounds good, let's blow people up."

Michael Egnor:

Right.

Andrew Newberg:

So, and of course, every tradition has had their violent tendencies at times. So what is it that leads people down those very dark pathways? And you even mentioned the other one. And again, I'm sure you've dealt with this in your own practice in one way or another, that I'm fascinated by the fact that when people are struck with some tragedy in their own life, the loss of a child or something like that, some people turn towards God as a way of, God's going to help me through this and my religious and, and spiritual faith are going to be what helps to cope and manage through this. While other people say, how could God do this to me? And they turn away from God.

Michael Egnor:

Sure.

Andrew Newberg:

And that's again, on one hand, I think neuro theology has an interesting opportunity to help us understand those distinctions. What goes on in the brain of somebody who feels like joining a cult is the right thing, versus somebody who feels like just being a, a religious individual who wants to improve the world and so forth, what are the differences there? But also there may be, be some interesting opportunities on a more I guess, therapeutic perspective, if you will, to say, what are the things that are going on that lead somebody down that darker path, that negative path? And can we actually help to understand that so that we can find more effective ways of redirecting people into something that is more positive and more constructive.

Andrew Newberg:

And there's been a lot of work over the last couple of decades, taking people with, for example, depression and recognizing that there could be a spiritual component to that as well. And that incorporating religious or spiritual concepts into more traditional psychotherapeutic interventions could actually be very helpful for of the right person. I mean, obviously if the person is a very devout atheist, then maybe not. But for someone who has a rich religious background, helping them to engage that in a way that might ultimately be therapeutically effective could actually be very beneficial for somebody as well. So there's again, there's sort of this ranging all the way from the esoteric of, well, what does this dark night of the soul actually mean?

Andrew Newberg:

And what might it look like to understanding the nature of people who are engaged in these negative aspects of religion and spiritual beliefs? To more practical ways of helping people work through them and help them to become healthier, develop a sense of wellbeing and health. And in fact, the most recent book that we wrote called Brain Weaver, talks about that spiritual side of ourself and how valuable that is and necessary it is for us to have our overall health and wellbeing. And we have to eat well, we have to exercise, we have to do all the other things that take care and nourish the body, but the spiritual side of ourselves are fundamental as well.

Michael Egnor:

In the ongoing debate between theists and atheists, it's not uncommon for the respective sides to trade accusations of mental illness. That is, that atheists will say that theists are basically just marginal

psychotics who are imagining gods there, and so on. Theists will say that atheists are sort of autistic with respect to God, and so on.

Andrew Newberg:

Right.

Michael Egnor:

Do you find any correspondence between the brain activity in people who are either theist or atheist with genuine neurological disorders like schizophrenia or like autism?

Andrew Newberg:

Well, I think to me at the moment, and while it's always hard to look at a given individual, usually we're sort of looking at populations. But there have been some interesting studies that have looked at these kinds of questions. And I'll give you one example, this was not a study that I did, but I think may shed some interesting light on your question. Which is that there were a number of studies that were designed to try to help to show that, and these were people who had some obvious biases against religion, that people who were religious were not as intellectually smart or weren't as good at solving problems and things like that. And they would have them do these different syllogism or logical problems or whatever.

Andrew Newberg:

And somebody got very clever and they said, "Well, maybe it has to do with the sure of how the questions are portrayed and worded." And what they did, there was this nice little study that was done, where they took religious individuals and non-religious individuals and they had them solve these different logical problems. And they had some logical problems that were more positive to religion, for lack of a better way of saying it. And some that were more negative towards religion. And what was interesting was, was that the people who were religious did really well on the logical problems that were positive towards religion, but didn't do as well on the ones that were negative. And the atheist, it was just the opposite. So it wasn't like their overall logic was better or worse, but it operated in different kinds of ways.

Andrew Newberg:

And another interesting example was that they did a study of religious believers and non-believers, and they showed them pictures that had been blurred. So almost like a Rorschach kind of thing, but they were actual pictures. And what they found was that people who were religious were more likely to see things in the picture that were not originally there in the picture, but didn't miss things. On the other hand, the atheist never saw something that wasn't there, but sometimes didn't see things that actually were there.

Andrew Newberg:

And so my take on a lot of this information is that I feel that the idea of how we look at the world and how we are biased to look at the world in one way or another very much is how we sort of shape the beliefs that we ultimately hold. So it's not that one side has a mental disorder or the other side has a different kind of mental disorder, but that there are different ways in which we look at the world and then that leads us down different paths of thinking about the world one way or another.

Andrew Newberg:

Same can be said of Republicans and Democrats, or even just in academics. Some people are really good in mathematics and science and others are good in the humanities. It's not that one person is better or worse or right or wrong. It's just that they just look at the world differently. And we talked about this a lot in the *Why We Believe What We Believe* book, that to us, it seems extremely hard to say that people who are deeply religious have psychoses or delusions or whatever, because there's just no, yes, of course there are some people who do, but just as there's atheists who do. But that by and large, these individuals are highly functional and I think I mentioned earlier, this study we did of people speaking in tongues. When they were speaking in tongues, they looked completely psychotic and crazy and all that.

Andrew Newberg:

And then five minutes later, they're totally fine and these are all people who have jobs, have families, they're totally normal in society, but they get into this state that is just so fascinating and unusual.

Michael Egnor:

What goes on in their brains when they're speaking in tongues?

Andrew Newberg:

Well, so that was one of the first times where we saw that frontal lobe activity actually decrease. And so, because they talk about, they say that they are not making it happen, that it is something that is happening to them. In fact, I had this little funny interchange with one of the first people who did the study and I said, "Okay, for the first state you are going to speak in English and then in the second state are going to speak in tongues." And they corrected me and they said, "No, no, no, that's not how it works." They said, "I can only get myself into a state in which it might happen. I'm not making it happen." And so we tended to see the frontal lobes decrease in those individuals who were speaking in tongues.

Michael Egnor:

And was the decrease in the speech area?

Andrew Newberg:

Yeah, exactly. Yeah. Both in the larger frontal lobe as well as in Broca's area about the production of speech. So then the question is, so what exactly is making those sounds?

Michael Egnor:

That's astonishing.

Andrew Newberg:

Yeah.

Michael Egnor:

And it's very consistent with, as you pointed out, with the Christian understanding of what speaking tongues is.

Andrew Newberg:

Exactly, exactly.

Michael Egnor:

Oh, that's absolutely fascinating.

Andrew Newberg:

But it also speaks to the fact that this is a person who is able to enter into a state and then be back in the everyday reality state. And so I don't believe that these individuals meet any kind of criteria for psychosis, they're completely normal otherwise. And some of them, I knew very well. They were wonderful people.

Michael Egnor:

Yeah. I've known people who do that.

Andrew Newberg:

Oh, yeah.

Michael Egnor:

They're very sane people.

Andrew Newberg:

But by the same token, let me just flip the question around. That there are relationships between, there are schizophrenics who believe that they are the Messiah, that there are people who have temporal epilepsy who have unusual, that's interesting and important as well for us to look at because there is a relationship in certain circumstances. And does that tell us something about how does the brain work?

Michael Egnor:

I personally believe that schizophrenia is the most interesting disease in medicine. It's also one of the most tragic.

Andrew Newberg:

Yeah.

Michael Egnor:

Because it robs a person of so much of their life.

Andrew Newberg:

Oh, absolutely.

Michael Egnor:

It's absolutely fascinating. And I have this feeling, I don't know if you share it, that we have not scratched the surface. We have drugs that will cover up some of the symptoms, but we don't know what's going on.

Andrew Newberg:

No, absolutely.

Michael Egnor:

Do you feel, does your work give you any insight into mental illness? Is that something that you've been able to address?

Andrew Newberg:

Well, a lot of my more traditional work with imaging has looked at a variety of different neurological and psychiatric conditions. We have studied people with head injury, we've studied people with depression, we've people with Alzheimer's, Parkinson's, and so forth. And so there are certainly overall changes that are seen in the brains of these individuals. And some are more uniform, like Alzheimer's tends to have certain specific patterns, but as you mentioned, some of the other ones like schizophrenia, which just can be so heterogeneous in terms of what the symptoms are and how they affect people, really hard to get a handle on.

Andrew Newberg:

And as you said, part of it is that we know that you can give a drug that blankets the brain in a certain way and maybe calms them down or something like that, but it's not fixing the fundamentals of who they are and whether various combination of spiritual practices and meditation and diet and nutrition and the right medications, we don't know. We really don't know what these individuals are going through and how their brain is actually operating.

Andrew Newberg:

But, again, we talk about this a lot in our Brain Weaver book about how do we try to maintain a brain as healthy as possible? But once you get into some of these more severe conditions, it is very challenging to know how best to manage them. And we just have to keep looking at how incredibly complex the brain is and trying our best to understand it and figuring out the best ways of trying to help people manage it, and in effective ways.

Michael Egnor:

It's wonderful work, Andrew. And as you may know, I've had some reservations about neuro theology as a field, because I'm afraid that purely a kind of ideologically materialist perspective will arise from this kind of research, but.

Andrew Newberg:

Right.

Michael Egnor:

It certainly seems from our discussion and from your work that you're doing it in a way that really is trying to get at the truth. And that's a wonderful thing and it's a fascinating topic.

Andrew Newberg:

Oh, well, thank you. And I share your concerns too, and I've tried to point that out with people when they're heading down paths that are necessarily the most effective answers to the questions, they have to be careful about what any of these studies mean.

Michael Egnor:

Sure.

Andrew Newberg:

And I know we're getting close to the end, but even studies where people take different substances, like psychedelics and they have these experiences, we have this Western perspective of they're artificial and they're created by this drug. But for Shamans throughout the centuries and millennia, it's the doorway to open the brain to that other world, that other realm. And again, I don't know what's really going on, but we have to really pay attention to all of the different perspectives that come out of those results.

Michael Egnor:

And there's a tendency, I think, in Scientism in general and neuroscience has some of it too.

Andrew Newberg:

Yeah.

Michael Egnor:

To label experiences that people have as necessarily being purely pathological, purely explainable in mundane ways. And that really isn't necessarily even a scientific way of looking at it, because right? There have been millions of people who've had experiences like this.

Andrew Newberg:

Exactly.

Michael Egnor:

And to just dismiss them all as being just on drugs or crazy or something, that isn't really scientific either.

Andrew Newberg:

Exactly. Exactly. Completely agree.

Michael Egnor:

Well. I am very grateful for your time. It's been a wonderful discussion. And I would like to do this again. So any time you would like to come back.

Andrew Newberg:

That would be great.

Michael Egnor:

We would love to have you, and thank you very much. Thank you.

Andrew Newberg:

Thank you. Appreciate it.

Michael Egnor:

Thanks. This has been Andrew Newberg. He is a pioneer in the field of neuro theology I'm Mike Egnor from Mind Matters News. And thank you for listening.

Announcer:

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