

Laughter and Evolution 2-16-98

In early February of this year a group of neurosurgeons was performing surgery on a patient with epilepsy and discovered the source of laughter. This new discovery may not seem groundbreaking at first, but considering that modern medicine has no idea why or how we laugh, this discovery turned some heads – and resulted in a few giggles.

Actually the giggling was the patient, who was awake during the procedure. The doctors discovered that when they stimulated a walnut sized bit of the right frontal lobe, that the patient laughed uncontrollably. Even more mysterious, this laughter center was not simply coordinating the various muscle actions that define the physical activity of laughter. The patient actually seemed to find everything around her wildly hilarious.

Laughter is a mysterious thing, on many fronts. This new discovery of a locality of laughter is sure to spur research on. So, we may soon know more.

One of the particularly interesting things about laughter is that it is behavior exhibited only by human beings. Perhaps, the advanced sea mammals also laugh, but if they do we are unaware of it from observations. Of course, being trapped in the circumstances in which humans could study you is liable to put just about anybody in a sour mood – so maybe they just don't laugh around us. The mystery remains though, why do humans laugh?

Some scientists are particularly befuddled because, as they see it, laughter has no particular survival value, and thus would appear to contradict some of the basic observations forming the Theory of Evolution. Laughter uses energy, which most survival mechanisms exist to conserve. And, the extra, occasionally uncontrollable, noise could attract predators, which is clearly a bad idea. So why would human beings laugh?

Perhaps the mystery is not with the laughter but with the people theorizing about it? When we say that laughter does not provide any survival utility, from what point of view do we come at this observation? In this case a very individualistic point of view. If one assumes that the survival value of evolutionary adaptations manifest in and for individuals, then that really misses the point.

Humans are social animals. If one starts from this observation and then looks to see how various evolutionary adaptations serve the survivability of the group as a whole, laughter clearly has survival value. Because of our highly developed intellect (you may have your own theories about the distribution of intellect) our social interactions become incredibly complex. And many behaviors, which seem to serve no particular function, may in fact be highly developed responses by the collective Homo sapiens over time.

I suggest that we laugh, that is have a physiological response to absurdity (as George Carlin has observed) because this response facilitates social cohesion – which helps to secure the survival of the member individuals. Taken over the long term nature is very

creative and evolution – quite obviously – leads to survival successes. There remains much we still do not know.

In our capitalist society, we operate with an underlying presupposition that humans are competitive creatures. We go to great lengths to describe how it is we survive in spite of this apparent handicap. Although the truly conservatively ideologues will claim it is all determined by a god, most people are more scientific about these things. Even people who claim to understand Marxism, in particular from the New Left, will say the most amazing things trying to explain human behavior. Herbert Marcuse, for example, thought that Marxism could learn a great deal from Freudian theory. These days even psychology is not so sure that there is much to learn from Freud – but explanations for conflict, and the lack of a resolution of this conflict in history to date, does motivate much confusion and many deceptive rationalizations as well.

It is conflict among humans that is the real mystery. Why would we develop behavior patterns that are clearly maladaptive in evolutionary terms? Allowing the rich to run things only threatens the whole group. Clearly, we will learn history's lessons in history. However, since there is no objective shortage of food or shelter, only problems with its distribution in the world, this maladaptive conflict cannot go on. Nature just doesn't work like that.

The facts are that humans are social animals. Our biology, our history, and our psychology all reinforce this observation. Interestingly enough if one looks to class theory the mystery of conflict becomes trivial in the big picture – a temporary evolutionary aberration of the fairly plastic human condition being worked out over time. It is a painful process to be sure, but on the scale of history we have been in conflict for mere seconds, and it will be over soon. Meanwhile, how many must die in violent misery?