

## **THE BIOLOGICAL BASIS OF HUMOUR**

**By**

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A horse walked into a bar, sat on the bar stool and ordered a pint of stout. ‘Sure thing’ said the bartender, ‘But why the long face?’. What is the biological basis for humour and laughter? This is a large question, to which there is no definitive answer. In this article I will present some thoughts on the matter, many of them taken from, or inspired by, the book, *Laughing Matters: A Serious Look at Humour* (edited by John Durant and Jonathan Miller, co-published by Longman Scientific & Technical, and John Wiley & Sons, 1989).

Humour (and its handmaiden laughter) is an extremely important emotion. It is innate in humans and is very useful for easing communications between people of different backgrounds and cultures. Humour is a powerful social lubricant – and much cheaper than alcohol. Walk into the university common room and you would swear we all loved each other, such is the buzz of gay banter and the tinkle of merry laughter. And, in times of tribulation or great sadness, one of the few things that helps to keep you going is your sense of humour. Almost everyone loves humour and would view a good comedy show as a special treat. My current favourite TV programme is *Frasier*.

Laughter is an involuntary physiological response to a cognitive stimulus. Coughing and sneezing are also involuntary physiological responses but, unlike laughter, which works from the top down, they work from the bottom up. Sneezing is caused by direct stimulation of motor centres of the nervous system, as, for example, when you sniff pepper. Laughter results from indirect stimulation of the motor centres of the nervous system via higher cognitive centres, which in turn are stimulated by reading a joke or by watching *Fawlty Towers*.

Miller likens the pleasure we get from laughter to the pleasures associated with eating or with sexual intercourse. These pleasures encourage us to indulge them frequently, thereby ensuring that we benefit from the associated practices – e.g. nourishment from food. So, how does laughter benefit us and how did it give us an evolutionary advantage that ensured that the practice became wired into the human body?

Miller reckons, and he must be right, that the beneficial effects of laughter reside entirely in the initial cognitive stages of the process. The involuntary lung and vocalisation spasms confer no benefit in themselves. Miller cleverly proposes that, if these spasms and sounds were beneficial, evolution would also have programmed us to take great pleasure in being tickled - and we don't. The average adult loves to hear a good joke, but only the terminally weird would actively solicit a good tickling. Tickling will, of course, induce laughter, but otherwise it approximates more to torture than to pleasure.

As we go through life we learn to categorise things. Scientists, in particular, spend their working lives trying to categorise aspects of the natural world. This categorisation is very important in order to make sense of the world. However, if we allowed our process of categorisation to become too rigid we would become robot-like and incapable of changing our behaviour to accommodate changes in the external environment. Miller suggests that humour was selected by evolution in order to keep our facility for categorisation flexible. When we have a good laugh we are looking at the world in a topsy-turvy configuration,

which exercises our facility to flexibly redesign our relationships with one another and with reality.

Why do we find things funny? Sigmund Freud proposed in his book *Jokes and Their Relations to the Unconscious* that laughter releases repressed feelings. Ethologists, who study the evolution of animal behaviour, point to the primate baring his teeth, in a prefiguring of the human grin, as a show of dominance over the more inept of his kind. Miller analyses a cartoon from *The New Yorker*: Two African explorers in pith helmets stand up to their necks in a swamp: One mutters, 'Quicksand or no, Carruthers, say what you like, I have half a mind to struggle.'. The ethologist might say that we laugh at that cartoon simply because of the fact that they are in peril and we are not. But Miller is surely right in surmising that we laugh at the cartoon because of the clanging clash between the mortal peril of the situation and the frumpy colonial attitude, scarcely appropriate outside the confines of a gentleman's club.

Surprise and coherence are critical components of most jokes. A joke usually sets you up to expect a certain outcome and it then presents you with something unexpected, but nevertheless consistent with the opening premise of the joke. Consider the following two jokes:- *A neighbour approached Mr. Smith and enquired, 'Say Smith, are you using your lawnmower this afternoon?' 'Yes I am', Smyth replied warily. The neighbour then said 'Fine. Then you won't be wanting your golf clubs. I'll just borrow them.'* . And again:- *A naked man was walking through a forest when he suddenly came upon an elephant. They both eyed each other warily. Suddenly, the elephant burst out laughing. The man was taken aback and started to get annoyed after a while as the laughter continued. Finally he asked the elephant, 'What the hell are you laughing at?' The elephant replied, 'I'm trying to figure out how you feed your family with that thing.'*

Ethnic jokes are seldom expressions of hatred, and few are about national enemies. Most ethnic jokes seem funny to the joker because they are about people who are somewhat similar to the joker. Completely alien people are not funny because they are seen to be outside the range of familiar categories. Here, finally, is an Irish joke taken from the book. It is an instant solution to the puzzle of how to spread the use of spoken Irish:- *How to speak Irish in one easy lesson – say very quickly, whale-oil-beef-hooked. Slán libh.*

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