

Re: Mutated brain gene: part of what makes us human

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- *From:* Peter Pan <peterpan55555@xxxxxxxxxx>
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On May 11, 1:34 pm, d...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx (DK) wrote:

In article <f20bkd\$186...@xxxxxxxxxxxxxxxxxxxxxxxx>, d...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx (DK) wrote:

In article <f1t1qn\$2cn...@xxxxxxxxxxxxxxxxxxxxxxxx>, Tim Tyler <seemy...@xxxxxxxxxxxxxxxx> wrote:

"Gene mutation linked to cognition is found only in humans"

[-http://www.physorg.com/news97825267.html](http://www.physorg.com/news97825267.html)

OK, so humans have an additional splice isoform. Big deal. Unless I missed something, there are many such examples. Certainly a far cry from "part of what makes us human" (unless you wanted to say "one part out of few thousands").

That "human and chimpanzee genomes vary by just 1.2 percent" thing is getting old and overused anyway. Truth is, when one looks at identity at protein/ORF level, humans and chimps only have 80% identity. Or, to put it the other way, one out of five proteins is different.

Actually, I was writing it from memory and my memory got it all backwards. In fact, chimps and humans share only 20% of *identical* proteins. The rest 80% are ever slightly but different. Not to imply that every one contributes to phenotypic differences but, clearly, possibilities are endless. Here is the original paper:

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubme...>

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Eighty percent of proteins are different between humans and chimpanzees
Galina Glazko, Vamsi Veeramachaneni, Masatoshi Nei, and Wojciech Makayowski

So, to edit it correctly:

Considering that a single mutation in a single protein can drastically alter the way an entire cell or a whole organism behave, the 80% difference looks appropriately very significant and that "humans and chimps are 99% identical" – quite stupid.

DK

So we can't get organ transplants from chimps?

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