

Toastmasters CTM-07

## **The freedom of a robot, the wisdom of Methuseleh**

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Permit me to start this presentation with a riddle. Its a riddle that I have posed often over the last 5 years, and I may have said it at Toastmasters already, so if you've already heard the answer, please sit back and watch the reactions of the others.

The riddle requires first that I state 3 assumptions.

Assumption #1 - Animals and humans are born with what I'll call "Mindcode", that is, substantially pre-programmed brains, with different capabilities being pre-programmed at many different levels of abstraction. So crying get food, breathing, and basic movement come more or less quickly and are available at a low level of abstraction. Language, though, would be passed on in the DNA at a highly abstract level. By and large we are missing details like the actual words, sounds and the attachment of semantics to specific words. Complex behaviours by Emperor penguins are another example, as the parents aren't around to teach their young when they first enter the ocean. Their behaviours are clearly pre-programmed at a whole range of levels of abstraction. The penguins are a great example of Mindcode, as there is no question about learning from the parents in this case.

Assumption #2 - Lamarckian heredity can occur with respect to the "Mindcode". In other words concepts or behaviours learned during an individual's lifetime can be passed onto offspring, but typically this would be rare and perhaps would normally occur at certain levels of abstraction for specific areas of the Mindcode only. This is currently considered to be a "no-no" biologically. (Michael Meany at McGillU, John Mattick's group in USQ)

Assumption #3 - Once in a while, errors occur in the Lamarckian-inherited "Mindcode". Here we are especially interested in a particular type of error - errors related to the level of abstraction and detail that is passed on. So perhaps where specific data should be passed on, only a general relation is inherited (for example,

Given those three assumptions, think of the situation where specific incidents in an individuals life are accidently passed on in a detailed manner in the "Mindcode". What would you call it if the details were "hidden or suppressed" for one or two generations, and reappeared in the Mindcode of a great-grand-daughter?

Pause - look for answers...

### **Wisdom of Methuseleh**

But now let's take this to the ridiculous extreme. Why be satisfied just with short-term "reincarnation"? We want more!

What I have been trying to find in my spare time recently is a more "clean and dramatic" indication of reincarnation that doesn't require Lamarckian heredity at all. I haven't found it yet, but let me tell you about the most recent failure. Several months ago reports started surfacing about the plight of polar bears in Canada's arctic. Global warming was reducing their hunting time on the ice, putting the bears at risk as seen in population declines. (Actually the reports were misleading - I'm getting so used to being misled as I now expect it! It turns out the 2 populations are declining, two are growing, and 10 or 12 are more or less stable, depending on the region.)

But it was apparently warmer ~1000 years ago during the medieval warm period, so one would expect that polar bears had to learn how to adapt to survive at that time. Is there evidence of an abrupt change in behaviour, back to a behaviour that hasn't been used for 1,000 years? Can the bears do as well as Methuseleh, tapping into solutions developed by their ancestors 1,000 years ago? Can we find behaviours that cannot be explained by "stumbling on a solution locally and temporarily"? I recently posed the question to an Environment Canada scientist who studies polar bears and their behaviour.

The response was an emphatic "no"! It turns out that semi-starved polar bears will actually walk across river laden with running char, and they apparently don't stop to fish for them!! Apparently, polar bears are traditionally "passive" on land, as they fill up on seals on the floating ice and more or less fast for the short summer season. (I'm misusing terms here). The bears might also be missing an opportunity to fish for char as they enter a semi-hibernation state when lacking food. Even when they walk around, they're not fully conscious. Apparently, many people are hoping to see signs of rapid adaptation of the polar bears to fit the changed environment. I'm not sure there's a lot looking for signs of reincarnation or ancient, long suppressed memories.

In spite of this failure, I am undaunted and still interested in looking for "reincarnated behaviours" from even the last glaciation period. It's not really a belief, its just the fun of pursuing zany ideas. Most of these will crash and burn. But some, like Lamarckian heredity and Mindcode, might be a "solitary" mind game for the better part of a decade, and then all of a sudden somebody finds supporting evidence and you can find others thinking the same crazy thoughts as you.