- A series of recent studies of the human brain using functional Magnetic Resonance Imaging (fMRI) and saliva samples have shown that complex "feel-good" brain-chemicals such as *serotonin, dopamine* and *oxytocin* (the latter is linked to feelings of trust and well-being) are released when listening to and/or participating in music. The release of such "feel-good" brain chemicals *also* has been shown to boost our immune systems. Furthermore, pleasurable listening or participating in music results in a *reduction* of the chemical *cortisol*, which is linked to *stress*, which is also obviously beneficial to us...
- Our ability to recall musical memories ranging from accurate recall of detailed, complex sounds/tones to whole songs/whole albums is also *amazingly* long-term "robust" significantly more so than that for "normal/everyday" memories, *e.g.* recalling the names of people you are introduced to at a party, or what you ate for breakfast last Thursday morning, *etc.* Neurological studies of the human brain have shown that musical memories are stored in more than one location in our brains, whereas this is *not* so for "normal/everyday" memories, thereby enabling/facilitating the much better recall of musical memories. Why is retention of musical memories so much more apparently important? How did this come to be?
- So why <u>is</u> music <u>so</u> important to us that we need to, and do remember music so much better than most everyday things in life? How did it come to be that music can have such a profound emotional impact on us? And so much so that "feel-good" brain chemicals are produced our own reward system...
- Apparently, at some time in the distant past to our ancestors music was (for some reason, or reason<u>s</u>) *extremely* important, important enough to us as a species at that time, and also for long enough that the importance of music has left its profound mark essentially a *genetic imprint* on the *functioning* of our brains!
- Clearly, humans <u>are</u> social animals and, it was precisely our sociability that enabled us, over the millennia, to collectively transform ourselves *homo sapiens* living in the stone age natural environment ~ 200,000 years ago to the artificially-elevated "highly technological" one that we live in today... If music was *so* important to us *then* as a species, did it also somehow play an important role in helping to get us from our humble beginnings to where we are today? If so, how?
- It is also important to note that amongst *all* of the billions of different species of living creatures on this planet, *no* other creatures on this planet even come close to us in terms of being curious/driven to comprehend/quantitatively understand the world (not to mention the universe) in which we live, at least to the extent/lengths/efforts our species has gone to. We, as a species are *unique* in this regard we're the *only* ones on *this* planet that have done so!
- If life exists elsewhere in the universe, what are the chances that any of *those* life forms are *also* sufficiently curious enough, driven to ultimately master *their* own planetary environment? What might *they* have learned, that *we* may have *missed* on our own journey from the stone age to the present day?