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Humans usually attribute themselves the prerogative of being the pinnacle of evolution. They have large brains with many billion neurons and glial cells, trillions of synapses and besides all, a plastic hardware that may change either subtly or strongly in response to the external environment and internal, mental commands. With this hypercomplex apparatus, they are capable of very sophisticated inward computations and outward behaviors that include self-recognition, metacognition, different forms of language expression and reception, prediction of future events, planning and performing long streams of motor acts, subtle emotional feelings, and many other surprising, almost unbelievable properties. The main challenge for research is: how do we explain this gigantic achievement of evolution? Is it a direct consequence of having acquired a brain larger than our primate ancestors, with huge numbers of computational units? Would it be determined by a particular way these units came to relate to each other, building up logic circuits of powerful capacities? What along development has "made the difference" for the construction of such a complex brain machine? How much of this complexity is innate, how much is sculpted by influence of the external world, by social interaction with our human fellows, and by the history of our own mental trajectory along life? Many specific questions can be asked (albeit not necessarily answered so far) to this purpose: (1) which genomic characteristics make us unique among primates? (2) which of

developmental events during and beyond embryogenesis define our brain - prolonged neurogenesis? permanent circuit (re)formation? dynamic synaptogenesis? regressive sculpting of the hardware? all of them? (3) is there anything special about plasticity of the human brain that allows us to build the exquisite individual variability characteristic of our brains? Neuroscience is in need of a synthesis. Perhaps associating concepts derived from developmental neurobiology with evolutionary morphology and physiology, together with those that photograph the human brain in action under influence of the external world, would turn on a light at the end of the tunnel, and we would be able to understand what humans do have that is special - if anything - to explain our success in the Earth.