THE INTELLIGENT, COMMUNICATING CELL QUESTIONS

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In the evolutionary process one has to wonder, at some point, how simple genes are able to decide that a minute change would benefit the next generation of that animal and then communicate that idea to the whole range of animals that make up this general family of animals. So, when we begin to study this set of questions, we enter into what is a very theoretical enquiry around the one central question of "how do cells decide?". Yet it is a very big question and an even bigger problem for the theorists.

Now, this is going to be very theoretical, and it will be very confusing, language wise. This will be complicated by the simple fact that at times with the authorities do not even begin to agree on an answer, yet it is, fundamentally, a question that must be answered in the general study of all biology and evolution at some point. Genes seen on one isolated slide plate just do not have any telephones, faxes, or e-mail capabilities to inform all of the other cells in any single organism, or even in the large family of such creatures. These cells, as all good old farm boys know, do not even have voices. They may have some sensations of feelings, but they do not have 'information high-way voices' by which they communicate outside of their own particular organic host. So, how do all the associated cells in a singular organism know and communicate their proposed changes to other to other examples of the same animal?

If a mouse were to come up with a program to develop a trunk, like an elephant, how would that single cell communicate his very complicated plan / idea to the whole community of cells in like vast number of examples of that original animal? This is the first great question in the advancement of the evolution hypothesis: "Are all of these animals to be left to discovery this new and remarkable development on their own?" A second question then arises, "Then how in the general process of natural selection would all of this work itself out?

Why would some examples of the original mouse choose to stay mice, while others would choose to evolve down the evolutionary chain into elephants?" "Why would some of these evolving elephants vote to forego the development of the trunk and just go for a longer nose?" When one gets one question answered, a new question comes into focus and causes further refinements and even more questions for latter discussion. It is a never ending stream of questions, that all comes back to one central point: "How did that first mouse get the idea of a beneficial "trunk", in the first place? This first mouse will eventually be seen as the ultimate designer behind the design. Some people would call him 'a god', not because he stood there monitoring the whole development circle, but because he had the necessary voice to begin the very complicated process of radial evolution. Spiral evolution will succumb to problem of both general and complex communication between cells every time.

I do believe in radial evolution, where different breeds are put together by a husbandman to produce a new line, but one that is still in the same general bailiwick as the original. Am example of this is the Doberman Pincer dog which did not exist before the Franco-Pruissian war when they were bred for their strength, intelligence, short-hair, to be used by the occupying troops of the Prussian army in its war with France. It started with a German postal man named Dobermann who used a German pincer dog, a Rottweiler, and a Black and Tan-terrier to protect him on his postal routes around the borders between the two countries. It was soon adopted into the German army as a guard dog.

Another example is the development of Brangus cattle in west Texas. This new breed is a cross between a Black Angus bull and Braham cow, near Sweet Water, Texas to combat buffalo fly infections in the cattle of that area. It has a high degree of resistance to the infections that these flies carry.

This is simple and basic husbandry in action. All of the dogs are still just dogs and all of the cattle are still just cattle. They both have a genetic design that helps the owners and handlers do a particular job, instinctively. They are design adaptations to meet certain specialized situations. They reproduce after their own kind, and do so rather well. The gene pool, did not send a letter to a husbandman suggestion that these crosses be made, however........because they have no 'cell phones'.

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The whole communication, adoption and rejection sequence in the long chain of evolution, brings up the next major question and that is the need for a need for a cellular memory system in our communications. "How does the sequence of cells deal with all the suggestions made and all the suggestions rejected?" "How does cellular memory, -maybe on a muscle type memory level, carry on past the initial development stage?" "How do subsequent generations remember what has, and what has not been conclude by earlier generations?" is there some sort of cellular congress or parliament involved, to keep the agenda and the orderliness moving along?

Just like in any development plan there also has to be an official of the general treasury of the 'cells-united party' to fund the enormous expense of the energy expended, just to see the process through to its initial conclusion. We find that we still struggle with all of the fundamental politics of genetic change. We keep on running headlong into the problems of "Who is captaining this change and evolutionary process" and "How do we get the energy to see it happen?". We have never been able to do this in modern life, so why would we tend to ignore procedural development in the process of biological development? Would it not be harder in the cellular world, without those intra-cellular phones, faxes, and e-mails that we love today?

The final conclusion to these problems is to say, due to the extreme amount of intricacies involved in going from mouse to elephant, is to say that "design demands a designer." We have all, already concluded the existence of design, by the way. The great argument then is all about who, or what, is the designer. If mankind , at large, still has problems in political evolution, where do they turn? They turn to their form of 'higher intelligence', in some way. We have evolved to that common response, if we may use the term 'evolve' here correctly and with all good intentions. It can be seen as quite simplistic to say, but at the end of the day, all societies have a 'god' to which they turn for answers. We may call those higher forms of being, scientist, or we may just use the term 'god' itself. Some would call this the 'Office of Universal Design Control', or 'The Great Cloud Switch Board', others would call it 'Mother Nature', and others would call it simply 'The Genesis Protocol'.

The second side to this now comes into play. It is the long process of research and development because no idea is ever born perfect and complete, nor does it proceed in a perfect-complete manner. There will be bobbles that occur, just as happened with Doberman's dogs, the first litter of pups were not the new breed, full extant and perfect in every way. They were pups, and they needed to be breed to brothers and sisters of the liters latter cycles. He, Doberman may have got it started, but it was a very long way from first litter to a new breed. Time and many attempts were still needed to get the exact requirements in place to even begin thinking of 'new breed', 'new guard dogs', with 'new troops trained in the manners and temperaments into which these dogs would be asked to work'. [One of the problems that the breeders of these dogs still have to deal with is the tail: should it be docked or should it be left long?] It is obviously complicated, but it is still driven along by a single design philosophy and one dedicated, thinking guiding mind, intent on one purpose.

If we follow on with our comparison of the development of 'mice into elephants' we face a little problem in that African elephants have a different number of toes to Asian elephants and both have very different toe structures to mice. How does this get sorted out and to whom was the original patent allocated? Who regulates it .... Or what regulates its continued shape, number and uses?

"Design and the designer does answer so very much, but if not then are we at an end of the evolutionary process, and who should really care about the loss of species and the significance there of? Does it matter that the tree kangaroo is declining in many parts of its range? What does the tree kangaroo give to our current perceptions of Australian life, today? What will be coming down from the "R and D" guys, next? Isn't extinction something to be looked forward to if evolutionary process rules th day?

By the way, …. Why does no one ever really mention "devolution" where things go from very good and highly complex to useless and gradually thrown away? Well they do, but they tend to be lumped into a list of 'vestigial organs', like the appendix and the coccyx (tail bone). That is the subject of the next article, and the following list:

- Palmar Grasp Reflex. inherited reflex Palmar grasp reflex in a newborn...
- Tails. In the sixth week of gestation, the human embryo possesses a tail, complete with several vertebrae ...
- Wisdom Teeth. teeth ...
- Nictitating Membrane ...
- Auricular Muscles ...
- Palmaris Longus Muscle ...
- Pyramidalis Muscle ...

This list used to be much longer, but just as time marches forward, so does our knowledge and understanding. In 1900, there were 167 organs in the human body that were classified as vestigial. Today that number is much reduced in number with distinctions being made as to the organs adaptivity in the full life cycle. The number of organ still remains constant from that number in 1900, but now we know now that these organs do have uses in the various stages of our lives and can even be called today 'required for the full life cycle'. Where does this leave vestigiality?