

Closer to natural perfection

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For each one of us there has surely been a time when we have simply savoured nature.. exemplified by "the bush". Looking out over the endless expanse of trees, grass, termite mounds, bushes... and antbear holes - imparts a sense of tranquillity and peace.

There is a strange paradox for whilst there is a veritable jumble of branches, spikes and leaves, there is somehow a perception that is all in balance. Many have queried the concept of Perfection in Nature ...how could such an apparently chaotic scatter nevertheless evoke such a reaction of appreciation in an observer? It would seem that the awe with which we view the complex arrangements arises mainly because of that very complexity! How could nature continue to survive if the complexities themselves are not perfect? Consider that it is estimated that there are some 8.7 million different species alive in our world ...and it is claimed that 1458 live in the human umbilicus!

There have been five catastrophic events over the aeons, each eliminating much of life on the planet... and yet there have been marvellous recoveries in each case, leading to the teeming life we observe today. Surely it is that complexity of life that produces the unexpected opportunities, the escape holes that allow for survival and reconstitution?

That does not mean however that complexity equates to perfection. There probably is at least some opportunism in a less than perfect system. And yet, and yet, ...there are amazing patterns definable in nature... the most striking being the adherence to the Fibonacci series... the petals on flowers are arranged in a Fibonacci series, ensuring that each has the opportunity to receive a fair amount of sunlight... the logarithmic curve of a sea shell is Fibonacci, the human face reflects the ratios... the double spiral of DNA molecules... these are not necessarily in themselves absolutely perfect but the pattern is unmistakable. Nature has indeed found a way that is in accord with balance... and in many instances may come close to perfection using that sequence.

Not always however... things can go wrong. This month draws attention to a tragic example... for this is recognised in the United States as Cleft Lip and Palate Awareness and Prevention Month.²

The website of the American Dental Association records: The defect may be genetic or the result of maternal environmental exposures during pregnancy.



This year, the Centre for Disease Control (CDC) is highlighting research on the association between smoking during early pregnancy and orofacial clefts.

The CDC said that although the causes of most lip and palate clefts are unknown, the 2014 Surgeon General's report confirmed that maternal smoking during early pregnancy can cause orofacial clefts in babies. In the U.S., about 7,000 babies are born with orofacial clefts each year. Women are encouraged who are thinking about becoming pregnant to quit smoking before pregnancy or as soon as they find out that they are pregnant.

The most recent surveys in South Africa report a prevalence of 0,3 per 1000 live births. It is a devastating experience for parents. There are currently eleven specialised academic centres for CLP treatment.³ The Wentworth Clinic, championed by Dr Singh in Durban, provides an impressive example of essentially private initiative in providing care for these patients. The South African Society of Orthodontists supports that initiative.

To these centres are accorded accolades for it is with their care that the CLP patients are brought closer to meeting the Fibonacci series... closer to natural perfection.

References

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3. Hlongwa P, Levin J, Rispel L. Epidemiology and clinical profile of individuals with cleft lip and palate utilising specialised academic treatment centres in South Africa. <https://doi.org/10.1371/journal.pone/0215931>