

THIRD TIME'S A CHARM? UNIVERSAL DARWINISM AND ITS FASCINATING REACH

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Abstract

Why do we like a certain advertisement over another? Is there a fundamental design in the universe that dictates our lives - the way we talk and walk? The answer is YES. The biological evolution has designed us humans over a period of millions of years through a simple design element called 'gene'. Similarly, our thoughts, ideas and stories – cultural evolution – explains how we think the way we do – through a simple design element 'meme'. Universal Darwinism explains how evolutionary processes are constantly working, fighting and competing against one another to make us who we are today. To add to the surprise, all of this works on a simple algorithm. Are we designed by super-intelligence or are we just the products of a mindless evolutionary process that runs on a simple algorithm? Is there a third replicator? All of this can be understood if one can understand a simple algorithm – The Evolutionary Algorithm of Universal Darwinism.

Now that the title has drawn some attention, let me explain you what, why and how. What is wonderful about our thoughts and ideas is that they are evolving all the time. We imitate stories, clothing styles, accents, songs, arch and tool designs, software UIs and so on which change over time. What lies beneath this layer is something very fundamental, very amazing and very elegant. Can you guess what?

Let us work towards it for which we'll travel back to 1800s when Charles Darwin produced his famous work titled *On the Origin of Species*. This contribution was far more than humans evolving from apes. In fact, Darwin, in his book also spoke of languages evolving and becoming extinct. Languages aren't animals, eh? No! And this is why his contribution is so significant. This is because he gave us a principle called as Universal Darwinism which is so simple and yet explains all the design of the universe. The principle of Universal Darwinism propounds that if a process has entities that exhibits three characteristics of variation, selection and heredity then the process is evolutionary in nature and there must exist an underlying design element. Let us apply this principle to biological evolution. Through a process spanning over billions of years, species have evolved through a process of variation, selection and heredity explained by a design element which we call gene. Is there another such process? Well yes – the process of cultural evolution in which our constantly evolving thoughts are explained by a design unit – memes.

Memes, the word was first coined by Richard Dawkins^[1] in his international bestseller *The Selfish Gene*. In simple yet powerful terms, Susan Blackmore^[2] defines a meme as anything that is passed on by imitation. Memes are like viruses of the mind that use human brains to survive and spread. Of course they are non-living entities but represent the fundamental principle of Universal Darwinism – Selfishness and Survival of the Fittest. No wonder the advertisements of competing brands struggle to occupy that coveted place in our minds. Consider this analogy – Our memory is a jungle of memes with each meme of a particular type, lifecycle and characteristics. As propounded by DarwinSF (now Culture2 Inc.), memes can be symbiotic, parasitic and so on just like animal species. But, I must stress that the relationship between Memetics – the study of memes – and Genetics is not a mere analogy – they derive from a common principle. This is what makes Memetics so interesting and beautiful!

How do memes spread? Through communication of any kind. Advertisements, TV Shows, books etc. This article itself is a meme trying to occupy a certain space in your mind for a certain period of time! You might be wondering how Memetics is related to various fields. Memetics is related and is applicable to any field that involves the study of human brain, behaviour and cultural. In other sense, cognitive, behavioural and connative studies which includes Market Research, Language Studies, Marketing Science, Neuroscience etc.

Why should memetics be pursued? Because it is the science that helps us understand the origins of what resides in our brains and dictates our decisions, behaviour, culture and beliefs. Because it gives a fantastic way of bridging the gap between quantitative and qualitative research by using tools such as Social Network Analysis and Big Data. Because it explains why we think the way we do.

But, hold on. All that glitters is not gold. We cannot be entirely happy about the memetic revolution. Memes are selfish replicating entities that try to occupy more and more space in human brain and this over many years of evolution have driven our brains to be bigger. A brain is an expensive organ for our bodies – with only 5% of the body weight it consumes about 20% of the body's energy. Bigger brains mean more energy for brains and lesser for other organs. This too can be accepted but at what cost? Harmful memes such as religion, wasteful

cultures, terrorism, technology and so others are so tricky and if misunderstood and misinterpreted can and like they historically have, proved disastrous for the world that we live in.

On a different note, Susan Blackmore^[2] interestingly modified the Clarke's equation to say that the third replicator will enable us to contact other species across the universe. I believe it is frequencies. Others believe it is technology. Whatever it be, it will have its consequences. Will we survive? Maybe we will, maybe we won't. We have no idea.

REFERENCES

1. Dawkins, Richard (1989). *The Selfish Gene* (2 ed.), Oxford University Press, p. 192, ISBN 0-19-286092-5
2. Blackmore, Susan, *Susan Blackmore: Memes and "temes"*, https://www.youtube.com/watch?v=fQ_9-Qx5Hz4, last viewed on November 23, 2012.