

Dear Mr. Dawkins,

Chapter XI of your book “The Selfish Gene” devoted to memes hits by its originality and unconventional thoughts, clear and convincing argument (As the whole book, though). My congratulations!

Nevertheless I have some questions and some notes to share with you. Probably they would interest you. Below are the citations in black from “The Selfish Gene”, then my questions and notes in red.

Are there any good reasons for supposing our own species to be unique ? I believe the answer is yes. So do I. The human being has one peculiarity to build virtual, which means described by the process, objects. It is the feature that none breather in the world has.

Most of what is unusual about man can be summed up in one word: ‘culture’. Probably, in this case the word “information” would be more convenient?

The new soup is the soup of human culture. So, does it mean “soup of information”?

Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. In other words it is technologies. It means processes described within process’ structure. By music, by thoughts, by speech, by technologies.

Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imitation. So why not take in this case the term “replication” once used by you? In addition, the brain is the unique information stock that man has in his disposition. His time-proved subprograms of body saving, or instincts, are encoded in its structure. Man’s medium-term and constantly changing “social subprograms” that care for people relationships within a society (in other words they care for society saving) are encoded in the structure of a closed energy stream. And, finally, one-use operating data are contained in the linear energy streams which make the subject of the exchanges between elements of human body, between people and society.

If a scientist hears, or reads about, a good idea, he passed it on to his colleagues and students. He mentions it in his articles and his lectures. If the idea catches on, it can be said to propagate itself, spreading from brain to brain. I would not quite agree. The information injected in the information soup is replicated (often with distortions) by information enclaves between people and societies too.

As my colleague N.K. Humphrey neatly summed up an earlier draft of this chapter: `... memes should be regarded as living structures, not just metaphorically but technically. It would not harm to explain what you mean by “living” in this context. I’d recommend to give a name of earthly living entity to the system including material and virtual components (described by the process structure), which change one another and the whole system as a whole, in such a way that it is preserved in changing environment.

When you plant a fertile meme in my mind you literally parasitize my brain, turning it into a vehicle for the meme's propagation in just the way that a virus may parasitize the genetic mechanism of a host cell. Perfect. Having injected in the information space an idea of the genes (which I truly admire), do you think you accommodated a parasite? Are we entitled to call your idea a parasite? Not of course. Indeed, this “parasite” emerged having used a series of well known and absolutely true (from his viewpoint) ideas. (Did it parasitize by absorbing them? No, it didn't. It gave them a new life.) The “parasite” didn't only devour its host, but it supported him, reinforced his positions in the information space (in the meme pool?). It accepted him as a team member. In this respect “parasite”-meme and “parasite”-gene are fundamentally different.

Consider the idea of God. Why does it have such high survival value? Because it meets the survival interests of its “gene”- a society with a low average IQ.

Remember that `survival value' here does not mean value for a gene in a gene pool, but value for a meme in a meme pool. Don't agree. Gene pool and meme pool are inseparably linked together. Survival value directly depends on survival value of tutor-meme as meme is a program of gene-saving. If there appears a gene with a bad meme, the latter will spoil its gene and the whole system; thus, both of them will disappear from gene-meme-pool.

As soon as the primeval soup provided conditions in which molecules could make copies of themselves, the replicators themselves took over. I'd say as soon as the primeval soup provided conditions in which molecules could make copies of themselves, the replicators came into being.

I have made no secret of my debt in the “book” to the ideas of R.L. Trivers. (And “the book” gave birth to new ideas.) Yet I have not repeated them in his own words. I have twisted them round for my own purposes, changing the emphasis, blending them with ideas of my own and of other people. There are two types of scientists. Those of the first type build their works from citations, those of the second type use citations as raw material for their own research. You fall under type 2. Hopefully, me too. When I was working on my Generalized conception of the universe (GCU), I regarded myself as a materialist and tried to examine impartially philosophical views of different schools. I was surprised to find out that religions indirectly reflect certain materialistic postulates, which are officially

rejected by them. Religious terminology allowed me to word my materialistic opinions in an accessible and comprehensible way.

If we extrapolate the ideas of replication to the level of societies, the human society could be considered a broth, where people as kinds of replicators – memes or genes, re being boiled, their aim being self-preservation. Here the ideology of the society corresponds acts as a chain of meme-people, analogous to chromosome. The rest goes along as you described for memes.

There is a problem here concerning the nature of competition. Where there is sexual reproduction (It means, in each place where the biological mutations are churned out and a revolution happens, the generation is replaced by a new one. It may be biological revolution and a cultural (information) one.), each gene is competing particularly with its own alleles - rivals for the same chromosomal slot.

A new question appears: what is allele and where it comes from. Let's take selfishness. It is a quality. That is why it cannot exist on its own, as an absolute and appears only through comparison of objects. Once there appears a new object qualitatively different from the old one, two mutual allele-systems come into existence. And they have their own allele-memes with the same "genes". In other words, once we declare the quality "selfishness", we immediately introduce a contrary notion - "altruism" as a quality of another object, which differs this object from the other one. Being qualities, neither selfishness nor altruism, exist as aq material or virtual object. Therefore, further parallels between meme and gene, which represents a real object, become pointless as the notions of object and quality have got confused.

Memes seem to have nothing equivalent to alleles. Why do you think so? Public morality is an analogue of the chromosome. It takes people with their allelic positions and chooses from these allele-people those most profitable for itself.

But in general memes resemble the early replicating molecules, floating chaotically free in the primeval soup, rather than modern genes in their neatly paired, chromosomal regiments. Dear Mr. Dawkins, please note a certain inconsistency in comparison between memes in the past and genes in the future. The pool of memes (primary bricks of information) might have existed or exists now. Like the pool of genes. Now as memes and gene are "in their neatly paired, chromosomal regiments", why some of them are considered as pools and others as a structure?

Meme has secondary nature. It could appear only following emergence of genes, to be more precise after genes had begun to interact, acquiring comparable qualities. For breathers including animals called "homo sapiens", body is a "gene"; "soul" (morality, conscience, customs, religions etc.) is a "meme". In human society people represent a gene, society's ideology – a meme. It's function, not the type of representation that matters.

The computers in which memes live are human brains. Or to be more exact, it is a neuro-system, and for the society it is the information space, which exists as a direct communication of people and media.

If a meme is to dominate the attention of a human brain, it must do so at the expense of `rival' memes. If an idea is to absorb the attention of a certain human being, it does so oppressing `rival' ideas. Thus, in the modern society, for example, where ego-persons prevail, the meme of religion has put the meme of science on the backburner through outnumbering.

“... commodities for which memes(-persons) compete are radio and television time, billboard space, newspaper column-inches, and library shelf-space.”

In the case of genes, we saw in Chapter 3 that co-adapted gene complexes may arise in the gene pool. On the level of human societies, co-adapted pools of their memes are the political parties.

Mutually suitable teeth, claws, guts, and sense organs evolved in carnivore gene pools, while a different stable set of characteristics emerged from herbivore gene pools. Has the god meme, say, become associated with any other particular memes, and does this association assist the survival of each of the participating memes? Yes, it does. A similar process takes place on the level of societies. By advocating violence, Bolsheviks collected a stable cluster of characteristics, like hatred and intolerance: “those who are not with us are against us”, “if the enemy doesn't surrender, the enemy will be destroyed”, then a strategy “two eyes for an eye”, “Marxism is the only one true doctrine”, “serf-order in the agriculture and its analogue in the industry as the basis of state government”. Christians, on the contrary, profess tolerance: “turn the left cheek...” and a strategy “an eye for an eye”. As you, along with R. Akserold, have shown that the truth proved to be in the middle, as the best strategy for a society is “an eye for one eye and a half”.

Perhaps we could regard an organized church, with its architecture, rituals, laws, music, art, and written tradition, as a co-adapted set of mutually-assisting memes. Yes, we could. At a certain level of development for a society (or its part at a certain level of development, for whom logic or intelligence do not exist) church precepts function as a society self-preservation program, based not on the knowledge, but on the Faith, in other words, stick and carrot.

I conjecture that co-adapted meme-complexes evolve in the same kind of way as co-adapted gene-complexes.

Dear Mr. Dawkins, the ingenious theory you developed shouldn't be mechanically extrapolated to memes, as gene and meme are totally different things. Gene is a unit of substantial material¹, meme is an information unit encoded in the structure of field material. Meme was born on the planet rotating on its axis and around its

¹ This question generates new ones, but it is a subject for another discussion.

sun. The birth took place in the physical body, which was on the surface of the planet and which was destroyed under force majeure circumstances: in the morning or in the evening, in spring or in autumn. The part of the sun ray - inner stream of energy, penetrating inside the physical body, proved to be structured in time by its power and direction, as due to the planet rotation the angle of the sun ray fall changed every instant. Inner stream of energy changed the elements of body and changed itself. That is how “the dual” system emerged, with substantial and field materials co-existing and affecting one another.

With a great number of dual systems, destroying under force majeure circumstances, there naturally were the ones that by the time of the critical instant (evening, autumn) had gone through significant modification, which made them resistant and sustainable for the future to come (night, winter). That is they “revived”, became breathers, or “self-preserving systems surviving in the changeable environment thanks to their own adequate modification”. “Reviving” became possible through combination of a certain physical body and energy stream, structured in a particular way. Physical body maintains its characteristics everywhere, and the structure of the energy stream in this case represented de facto the program of a concrete living entity preservation. And the structured energy stream itself did play a role of information carrier. Therefore, constantly changing power and direction of inner stream of energy within a living entity may be considered as a chain of energy impulses (a chain of elementary items of information, or memes.) Moving back from the difficult to the simple we can say that any energy impulse - any meme, while encountering any physical body changes it in a certain way. So meme reflects qualitative characteristics of the body.

In the course of living entities development, within one system there have been built two parallel pyramids, that of genes and that of memes. The base of the first one is gene, the base of the second one is meme. The upper part of the pyramids – the animal “homo sapiens” – demonstrates the gene chain – body, and the meme chain – soul.

“...as each generation passes, the contribution of your genes is halved. It does not take long to reach negligible proportions”. (In seven years it will represent less than 1 per cent. “Seven human lives”?) “...We should not seek immortality in reproduction. (But children will save a part during these seven generations! What can you have of a cat but her skin.)

One unique feature of man, which may or may not have evolved memically, is his capacity for conscious foresight. (construction of virtual models)

It is possible that yet another unique quality of man is a capacity for genuine, desinterested, “true altruism”.

I suppose that homo sapience professing competition doesn't have such a quality. “True altruism” will appear only provided the society changes its value system and

moves from the natural succession of events to the artificial one, from the competition to the cooperation. Today liberal democratic societies find themselves trapped and there is no natural way to get out. As a result we are heading for a fall, along a ramp, which has already led a great number of civilizations to non-existence.

31/10/2011 Andrey Yakup