



Critical review of the Book the Selfish Gene by Richard Dawkins

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Book Review

The Selfish Gene by Richard Dawkins, New York, Oxford University Press, First published 1976
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Richard Dawkins' "The Selfish Gene" is a science book in which Dawkins presents a gene-centered view of evolution. It is an easy and presentable book in the field of biology that discusses the early formation of life on Earth. How life was formed and how it is going with time Dawkins presents the idea of evolution from a genetic perspective, as opposed to the view offered by WD Hamilton and other scholars in the form of organisms and groups in the early 1960s. The books present different aspects of organisms. Dawkins explains that if two organisms are genetically related, it makes sense for them to behave cooperatively. It is an enjoyable book with a clear view of how organisms in the race to survive behave selfishly. The most important contribution that Dawkins made and introduced among the scholars was the concept of meme, which Dawkins defines as a unit of human cultural evolution, as in the case of genes.

Dawkins explained the concept of memes as a new replicator that is responsible for cultural evolution. Meme is the fundamental unit of cultural information transfer, and this cultural information transfer is what we call an "idea." The basic idea Dawkins gives in this book is that memes work or behave

similarly to genes; an idea can replicate itself like biological replicators such as genes, but the idea needs a vehicle to replicate, which is our mind, so this replication is the same as gene replication, which I have done with the idea. Dawkins states that memes, such as the idea that has emerged in the brain, replicate faster than genes when transferred to another person through any medium. This replication is possible due to technology today.

The book clearly explains the origin of life by introducing the term "replicator." According to Dawkins, replicators are the first molecules born on this Earth. According to Dawkins, replicators are molecules that can copy themselves. Dawkins introduced the concept of vehicles, which he describes as the medium for the replicators to work and imitate. Dawkins talks about one type of biological replicator, which is a gene. Our gene is a replicator that makes a copy of itself but needs a vehicle to make a copy of itself, provided by our cells. Dawkins argues that our cells, the human body, and all biological living organisms are the vehicles for our genes to make copies of themselves.

Furthermore, Dawkins considers that DNA plays a vital role in the evolution of life, and it behaves selfishly. He explains that raising children by their parents is an evolutionary strategy. Here, he opposes the idea of group selection and explains that each parent behaves selfishly during the reproduction process and in the transfer of genes. Dawkins gives the biological definition of memes and how they transfer from person to person through imitation. The book nicely debunked the idea of memes, and its introduction brought about a biological revolution among scientists and social science scholars. Though memes were present earlier in the world, the actual credit for giving shape and style to this concept goes to Dawkins. He does everything to dispel the myth of memes.

Furthermore, he discusses concepts like replicators, memes, and altruism. He further explains that the concept of altruism can be explained by genetic selfishness. Dawkins defines selfishness as compared to genes. It is not selfish but defines it as a critical quality that does not have any good words in English apart from this. Here, he further explains that what parents' genes do for their children may not do the same for their children individually.

Dawkins argues that during the reproduction process and transfer of genes, there is a conflict of interest between males and females. However, he agrees with R. A. Fisher's theory that the optimal sex ratio is 50:50. Dawkins considered the molecule the original replicator, which somehow managed to reproduce it and thus gained an advantage over other molecules within the primordial soup. He added that

replicating molecules become more complex and become genes; they become survival machines within the organisms. Dawkins suggested that there is a power struggle between genes and their interactions with organisms for survival. The struggle, as claimed by Dawkin, is not true at all. Dawkins gives the perfect picture of genes: how they behave, form, and survive in living organisms.

Richard Dawkins claims that his main intention in writing *The Selfish Gene* was to examine the biology of selfishness and altruism. Dawkins was sure that genes are immortal; they do not die; only organisms die. In the same way, Dawkins explained the meme concept in the 11th chapter of the book and claimed memes are also similar to guns in this respect. He explained this by giving examples of different scientists, philosophers, and scholars worldwide who have given the world one idea or another. For example, Albert Einstein gave the theory of relativity, Thomas Edison gave the electric lamp, Archimedes gave the concept of the solar system, and Copernicus gave the concept of the solar system. All these hoes spread with time and are now spreading from younger to older generations. He called these ideas "memes" and argued that these are ideas that are imitated by different people and pass through cultural transfer. Though Dawkins could describe the concepts of genes, memes, replicators, and molecules in his book and explain their biological aspects, he could not clearly define what should be considered a meme in terms of political, social, and technological aspects.

Richard Dawkins introduced the concept of memetics well in his book and defines memetics as the science that studies memes' origin, formation, and evolution. Dawkins left the memetic field after he wrote this book. He left this field with a broader gap, which paved the way for future scholars. The introduction of this field of memetics led to the further evolution of memes. Moreover, Dawkins introduced the theory of memetics in his book, which he explains as the ideas, behaviours, or styles that transfer from one person to another through imitation. According to his theory, spreading an idea can produce harmful or positive effects. For example, the # meetoo moment and how this moment spread on social media within no time. This moment, which digs out the harassment that female actors suffer from worldwide while working in the film industry and other workplaces, has gained popularity on social media. Social media acted like a meme pool for spreading those ideas worldwide.

The Selfish Gene is an easily readable book consisting of 13 chapters with concepts explained by Dawkins theoretically and practical examples in daily life. The first chapter, "Why are People?" explains that the theory of evolution is essential for us as it extends love, hate, fear, cooperation, giving and stealing, greed, and generosity. Dawkins argues that if we were told that a man lived a long, prosperous

life in the world of Chicago gangsters, we could make assumptions about the sort of man he was. He might have toughness, quick-trigger fingers, and the ability to attract loyal friends. Similarly, Dawkins assumes that we are machines created by our genes. We can make assumptions about the quality of genes, what kind of genes they are, or how they look. Dawkins rejected the group selection theory and said that if we want to know about evolution, we should start with genes. Anything that evolves through natural selection is selfish by nature.

Dawkins explains that genes are the primary replicators beyond cultural evolution rather than individuals' genes or organisms. He then rejected the individual theory of natural selection. This perspective shifts the focus from individual organisms to genes for information transfer from person to person.

The title refers to the idea that genes are self-evident in their character and behaviour. According to Dawkins, the first replicators were genes, and the second replicators were memes, and then the process was going on. They are selfish due to their replication property, according to Dawkins. Dawkins further says in his book that organisms are survival machines carrying replications from one person to another.

Dawkins introduces one more concept in his book as an "extended prototype," which refers to the idea that genes affect not only the physical traits of the organism but also its effects on its surrounding environment. An organism's altruism (selfless behaviour) can be explained by genes, even if the individual has to sacrifice their own life. Furthermore, Dawkins explains that egoism and cooperation can affect the survival and reproduction of organisms that share common genes.

The Selfish Book is evolutionary in the field of biology. It has sparked debates and discussions not only in biology but also in other fields of research. It has significance in understanding the fields of genetics and cultural evolution.