



## The Selfish Meme Hypothesis: An Evolutionary Account of Culture and Cooperation

A Review of

*For Whose Benefit? The Biological and Cultural Evolution of Human Cooperation*

by Patrik Lindenfors

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Reviewed by

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*Cooperation* is a term like *motherhood* that tends to invoke an instant glow of warmth in our minds. This warm and fuzzy feeling may turn into a cooler reflection after you read *For Whose Benefit? The Biological and Cultural Evolution of Human Cooperation* by Patrik Lindenfors.

In nonhuman animals, cooperation is confined to the genetically related in-group to serve the purpose of the genes. With humans, when nature is overtaken by culture and genes by memes, cooperation is upgraded to super-cooperation in which millions of unrelated individuals cooperate to serve the purpose of abstract ideas such as state and market—with dire consequences, as evidenced by genocides and the massive extinction of many plants and animals (Harari, 2011). Selfish meme is a hypothesis that can explain all this. This is, however, only one possible reading of a grand narrative of the biological and cultural evolution of cooperation told by Lindenfors. It is a story worth listening to in full.

Lindenfors begins with the reminder that cooperation is not about cooperating individuals, so much as constituting one of the fundamental principles of life itself. This fundamental principle of life is what is referred to by Dawkins (1976) as the “selfish gene.” Basically, life is a matter of replication of the replicators, such as genes and memes. The agenda of the gene is to replicate itself, but replication requires cooperation to work. For instance, the cells that make up an organism are cooperating units that are working together in order for the gene to replicate itself. As Samuel Butler put it, “A hen is only an egg’s way of making another egg” (cited in Lindenfors, p. 20). The upshot of all this is that since we are a conglomeration of cooperating parts—genes, cells, organs, neurons, and memes/ideas—we don’t have a “self” any more than the hen does. Invoking the philosopher Daniel Dennett, Lindenfors devotes one whole chapter on the “scientific” truth that the self is an illusion (not to mention that the Buddha said this a long time ago).

Whether or not you agree with the “soulless existence” (p. 29) proposal of Lindenfors, his formulation of the selfish gene hypothesis is very helpful: The cost of cooperation is incurred at one level—the individual organism, say the hen—while the benefit is reaped by another, lower level unit, such as the egg. This formulation applies to the fact that our cells die so that our genes can replicate better, as well as to the fact that martyrs die so that their beliefs (memes) can spread better.

Memes are the cultural counterpart of genes. Dawkins (1976) coined the term *meme* to refer to “ideas and thoughts, or basically, that which is transferred when we learn something” (p. 124). Lindenfors compares memes to viruses that hijack another system, such as our brains, in order to replicate. Thus, memes are as selfish as the genes, except perhaps more potent—if the selfish gene manipulates organisms, culture/meme domesticates humans (see p. 151). The increased potency of memes lies in the human capacity for language, which has crossed the symbolic threshold and thereby no longer needs to anchor itself on external objects. For illustration, consider “exaggerated cooperation” in certain “advanced” cultures, where people even cooperate with unrelated strangers.

In the animal kingdom, cooperation is among generically related conspecifics, since this benefits the gene. Cooperation beyond genetic connection is made possible by memes—abstract ideas such as God, country, and so on—for the replication of which collective cooperation among totally unrelated strangers is needed. Large-scale cooperation beyond the kin is referred to by Lindenfors as “exaggerated cooperation” (p. 106) or “extreme cooperation” (p. 101). There is, however, a dark side to extreme cooperation, as it may have coevolved with the human impulse to wage war. Lindenfors cites research to show that in-group cooperation and intergroup aggression are two sides of the same coin.

## On the Evolutionary Scrapheap of Memes

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An evolutionary story is incomplete without winners and losers. As the book reaches its crescendo with natural selection of memes, Lindenfors contemplates on the trash heap of failed ideas and goes on to pose a bold question: “How do we outsmart our replicators by culling bad ideas from good? We may have been domesticated by our memes, but . . . we can cunningly reciprocate and apply the process back on them” (p. 167). But wait, where does this agency come from? Up until now, the protagonists on center stage are the selfish genes and memes, while their vehicles or hosts—the individuals—have submerged in “a soulless existence” (p. 29). If being summoned to agency and responsibility so abruptly makes us ill-prepared, Lindenfors comes to our rescue with some practical guidelines.

How do we tell good from bad memes? Lindenfors recommends the test of time and reality. While the test of time is self-evident, the test of reality needs some explanation. This is the scientific method he recommends: “What determines if a theory survives or ends up on the scrap-heap of history is the meeting with reality” (p. 167). Horoscopes, time travel, angels, and auras are some of the examples he gave as ideas that are just fantasies that die when meeting reality. He goes on to say that “the scientific method has led to an accumulation of a mass of knowledge that is a better description of the world around us than any earlier” (p. 167), such that we become smarter than our predecessors. Knowledge and smartness in turn can explain why certain cultures/memes end up on the evolutionary scrapheap: “We

know more now and with that knowledge, culture that was crucial, revelatory and of immense importance to previous generations disappears" (p. 156).

While it is debatable whether traditions that still believe in horoscopes, angels, and auras have "disappeared" as predicted by his reality test, Lindenfors did give us an account of the real disappearance of a small-scale society that kept losing knowledge and technology due to geographical isolation and small population size: The Tasmanian aborigines were an isolated group between two and eight thousand in 1803, when the British came. Before they were killed off by the British, they had already forgotten how to make fire or clothes to protect themselves from cold. Having forgotten how to make fishing tools, they simply stopped eating fish— something strange for an island population, noted Lindenfors. However, I was struck by something even stranger than the impoverished knowledge of this population—their complete disappearance within 70 years of colonization. According to Jared Diamond,

Tactics for hunting down Tasmanians included riding out on horseback to shoot them, setting out steel traps to catch them, and putting out poison flour where they might find and eat it. Shepherds cut off the penis and testicles of aboriginal men, to watch the men run a few yards before dying. At a hill christened Mount Victory, settlers slaughtered 30 Tasmanians and threw their bodies over a cliff. One party of police killed 70 Tasmanians and dashed out the children's brains. (Rashidi, 1998)

If our "advanced" knowledge and smartness did not deter but instead facilitated and justified our inhumane treatment of the culturally different other, we need a better set of selection criteria for good memes. Lindenfors later added a third criterion—individual happiness: "the total impact the ideas have on the well-being of the nodes that are spreading them—our individual happiness" (p. 168). Colonialism would pass this test in flying colors—the settlers built happiness at the expense of the Tasmanians. Lindenfors further offered a more stringent version of the happiness test: "Long-term, sustainable well-being for as large part of the human population as possible, for us and our descendants" (p. 168). Colonialism can pass this one also, since extermination of a few thousands does not violate the rule of benefits for the greater majority.

Selfish memes can indeed outsmart us. In Lindenfors's case, this looks like an infection by a hegemonic meme that may be called "science supremacy." I am almost sure that it is a case of meme infection, since Lindenfors himself is actually subscribing to a completely opposite meme, attributed to Voltaire, who was willing "to die for *someone else's* possibility to spread their ideas" (p. 167).

## Beware of Hegemonic Memes

The memes that are eager to send other memes to the scrapheap of failed ideas pose a threat to the biodiversity of our meme pool. If you think that this hegemonic takeover is an isolated incident of the colonial past, think again. In today's global economy, the competition of winners and losers in knowledge and smartness is even more intense, resulting in an increasing number of "economic misfits" (Bourdieu, 2000, p. 28) slated as it were for the evolutionary trashheap. How do we prevent the hegemonic takeover of the selfish memes before it is too late? I can think of two measures—a better definition of good memes and a more stringent reality test to screen out bad ones.

Good memes may be defined as ideas that can nourish and enrich the mental life beyond knowledge acquisition—for instance, the memes that can open up new horizons of being and knowing, as envisioned by Csikszentmihalyi (1991):

Spiritual values, spiritual ideas, symbols, beliefs and instructions for action. . .point to possibilities to which our biological inheritance is not yet sensitive. The sensate deals with what is, the spiritual deals with what could be. (pp. 17–18)

At the culture level, one important reservoir of good memes is what Edward Sapir (1956) refers to as “genuine culture,” which is reflected in the energy set free for the pursuit of the remoter (noneconomic, nonutilitarian) ends, such as rituals, arts, and literature.

In addition to keeping a healthy supply of good memes, we also need to have a more stringent reality test. As we have seen, it is not easy to outsmart the selfish memes, because humans are prone to illusions, partly due to the fact that, as Lindenfors points out, human language has crossed the symbolic threshold, thereby no longer tethered to external reality. One test that holds promise in protecting us from the illusions spun by selfish memes is the test of suffering, as suggested by Harari. In an online interview, Harari points out that it is not our own happiness so much as the suffering of our fellow beings that can anchor us in reality:

The best test to know whether an entity is real or fictional is the test of *suffering*. A nation cannot suffer, it cannot feel pain, it cannot feel fear, it has no consciousness. Even if it loses a war, the soldier suffers, the civilians suffer, but the nation cannot suffer. Similarly, a corporation cannot suffer, the pound sterling, when it loses its value, it doesn't suffer. All these things, they're fictions. If people bear in mind this distinction, it could improve the way we treat one another and the other animals. It's not such a good idea to cause suffering to real entities in the service of fictional stories. (Harari, 2017, emphasis added)

## Summary and Conclusion

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Lindenfors has written a thought-provoking story about human cooperation, in which the selfish gene hypothesis is extended to selfish meme in an engaging, lucid, and coherent account of cultural evolution. The writing is highly accessible, and the coverage of topics is suitable for courses in psychology at all levels—from undergraduate to postdoctoral. Those who subscribe to evolutionary psychology will find in this book an invaluable source of information; those who disagree with the evolutionary framework will find in Lindenfors a worthy opponent. What more can one expect of a book?

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