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Cultural attractors

In 1967, Richard Dawkins introduced the idea of a meme: a unit of cultural transmission capable of replicating itself and of undergoing Darwinian selection. "Meme" has become a remarkably successful addition to everybody's cognitive toolkit. I want to suggest that the concept of a meme should be, if not replaced, at least supplemented with that of a **cultural attractor**.

The very success of the word "meme" is, or so it seems, an illustration of the idea of a meme: the word has now been used billions of time. But is the idea of a meme being replicated whenever the word is being used? Well, no. Not only do "memeticists" have many quite different definition of a meme, but also and more importantly most users of the term have no clear idea of what a meme might be. Each time, the term is being used with a vague meaning relevant in the circumstances. All these meanings overlap but they are not replications of one another. The idea of a meme, as opposed to the word "meme", may not be such a good example of a meme after all!

The case of the meme idea illustrates a general puzzle. Cultures do contain items—ideas, norms, tales, recipes, dances, rituals, tools, practices, and so on — that are produced again and again. These items remain self-similar over social space and time: in spite of variations, an Irish stew is an Irish stew, Little Red Riding Hood is Little Red Riding Hood and a samba is a samba. The obvious way to explain this stability at the macro level of the culture is, or so it seems, to assume fidelity at the micro level of interindividual transmission. Little Red Riding Hood must have been replicated faithfully enough most of the time for the tale to have remained self-similar over centuries of oral transmission or else the story would have drifted in all kinds of ways and the tale itself would have vanished like water in the sand. Macro stability implies micro fidelity. Right? Well, no. When we study micro processes of transmission—leaving aside those that use techniques of strict replication such as printing or internet forwarding—what we observe is a mix of *preservation* of the model and of *construction* of a version that suits the capacities and interests of the transmitter. From one version to the next, the changes may be small, but when they occur at the population scale, their cumulative effect should compromise the stability of cultural items. But—and here lies the puzzle—they don't. What, if not fidelity, explains stability?

Well, bits of culture—memes if you want to dilute the notion and call them that—remain self-similar not because they are replicated again and again but because variations that occur at almost every turn in their repeated transmission, rather than resulting in "random

walks" drifting away in all directions from an initial model, tend to gravitate around cultural attractors. Ending Little Red Riding Hood when the wolf eats the child would make for a simpler story to remember, but a Happy Ending is too powerful a cultural attractor. If a person had only heard the story ending with the wolf's meal, my guess is that either she would not have retold it at all—and that is selection—, or she would have modified by reconstructing a happy ending—and this is attraction. Little Red Riding Hood has remained culturally stable not because it has been faithfully replicated all along, but because the variations present in all its versions have tended to cancel one another out.

Why should there be cultural attractors at all? Because there are in our minds, our bodies, and our environment biasing factors that affect the way we interpret and re-produce ideas and behaviors. (I write "re-produce" with a hyphen because, more often than not, we produce a new token of the same type without reproducing in the usual sense of copying some previous tokens.) When these biasing factors are shared in a population, cultural attractors emerge.

Here are a few rudimentary examples.

Rounded numbers are cultural attractors: they are easier to remember and provide better symbols for magnitudes. So, we celebrate twentieth wedding anniversaries, hundredth issue of journals, millionth copy sold of a record, and so on. This, in turn, creates a special cultural attractor for prices, just below rounded numbers—$9.99 or $9,990 are likely price tags—, so as to avoid the evocation of a higher magnitude.

In the diffusion of techniques and artifacts, efficiency is a powerful cultural attractor. Paleolithic hunters learning from their elders how to manufacture and use bows and arrows were aiming not so much at copying the elders than at becoming themselves as good as possible at shooting arrows. Much more than faithful replication, this attraction of efficiency when there aren't that many ways of being efficient, explains the cultural stability (and also the historical transformations) of various technical traditions.

In principle there should be no limit to the diversity of supernatural beings humans can imagine. However, as Pascal Boyer has argued, only a limited repertoire of such beings is exploited in human religions. Its members—ghosts, gods, ancestor spirits, dragons, and so on—have all in common two features. On the one hand, they each violate some major intuitive expectations about living beings: expectation of mortality, of belonging to one and only one species, of being limited in one's access to information, and so on. On the other hand, they satisfy all other intuitive expectations and are therefore, in spite of their supernaturalness, rather predictable. Why should this be so? Because being "minimally counterintuitive" (Boyer's phrase) makes for "relevant mysteries" (my phrase) and is a cultural attractor. Imaginary beings that are either less or more counterintuitive than that are forgotten or are transformed in the direction of this attractor.

And what is the attractor around which the "meme" meme gravitate? The meme idea—or rather a constellation of trivialized versions of it—has become an extraordinarily successful bit of contemporary culture not because it has been faithfully replicated again and again, but because our conversation often does revolve—and here is the cultural attractor—around remarkably successful bits of culture that, in the time of mass media and the internet, pop up more and more frequently and are indeed quite relevant to our understanding of the world we live in. They attract our attention even when—or, possibly, especially when— we don't understand that well what they are and how they come about. The meaning of "meme" has drifted from Dawkins precise scientific idea to a means to refer to these striking and puzzling objects.

This was my answer. Let me end by sharing a question (which time will answer): is the idea of a cultural attractor itself close enough to a cultural attractor for a version of it to become in turn a "meme"?