

SOCI 360

**SOCIAL MOVEMENTS
AND
COMMUNITY CHANGE**

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Memetics – The Latest Contagion Science

Cultural ideas are a deliberative and potent means of reinforcing social norms, roles and institutions. Culture is determined by the ideas people share and act upon. Today, the science of “memetics” investigates the nature of ideas in the context of cultural life.

Nowhere better do “memes,” or units of information, inform culture than through the internet. The study of social contagion is the study of “memes”.

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- a. **A “meme” is simply an idea that can reside within the human brain.**

Its analogy is the “gene,” a code which resides in the DNA of every human. Whereas the “gene” is the unit of transmission in biological evolution, the “meme” is the unit of transmission in cultural evolution.

Gene:Cell
Meme:Neuron

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b. Language (code) as cultural evolution

Some scientists believe that culture and language evolve using the same patterns and principles as genetic evolution.

Genes are replicators that pass on DNA. Memes are replicators that pass on ideas. The best are all strong on:

- i. **Fecundity** – speed of transmission (and amount of transmitted material)
- ii. **Fidelity** – accuracy of transmission
- iii. **Longevity** – life-span of replicator

Blackmore , The Meme Machine, 1997

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c. What is a Meme?

“ a replicator that conveys the idea of a unit of cultural transmission, or a unit of imitation”

--Richard Dawkins

– *or* –

“an information pattern, held in an individual's memory, which is capable of being copied to another individual's memory.”

-- F. Heylighen

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d. A *meme* unit is the smallest ideas or (idea sets) that get copied completely.

Examples of memes or meme units:

- Technology (fire, paper clips, cars, etc.)
- The first four note of Beethoven's 5th Symphony ("ba-ba-ba-bummm")
- Proverbs, aphorisms and advertising slogans
- Songs one can't stop thinking of ("earworms")
- Internet jokes that are passed around
- Social norms, including mythology and religion

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e. Meme “vehicles” or “machines” are ways in which idea sets get copied from one brain to another.

Meme machines always rely on human transportation and communication technologies.

Examples of meme machines are:

- Human signals
- Human speech
- Traditional Media: printing press, newspaper, radio
- New media: TV, the Internet, email, etc.

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f. The Science of “Memetics”

Some scientists believe that culture and language evolve along the same patterns and principles as genetic evolution.

1. Principles of *Natural Selection* apply

(the “evolutionary algorithm”)

- Inheritance = Invention: creation of new forms of culture
- Variation = Innovation: altering existing forms of culture
- Selection = Diffusion: spread of culture

2. Memes are analogous to genes

Genes: instructions for making proteins

Memes: instructions for carrying out behavior

Etymology: “Meme” is a shortened version of the Greek word “mimeme”, which means “imitation” or “mimicry”.

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Gene in parent



Gene
Transmission

Related or unrelated
previous generation

Peer brains



Idea / skill
in brain



Unrelated next
generation
brains



Meme
Transmission



Offspring brain

Gene in parent



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g. Questions about the “memeplex”:

- ▶ “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 ... imitation.” (Dawkins).

How do memes “leap from brain to brain”?

- ▶ Memes “compete ... for space in our memories” (Blackmore, 1999) ... and form ‘co-adapted memeplexes’ that sometimes act like parasites ‘by propagating themselves at the expense of their hosts’ (Dawkins).

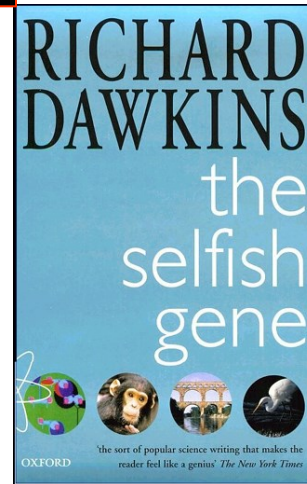
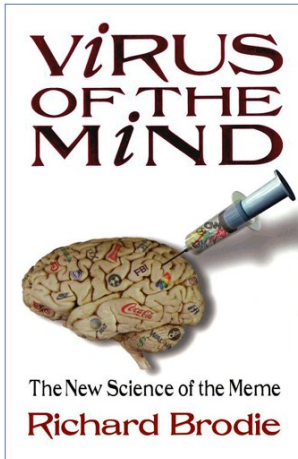
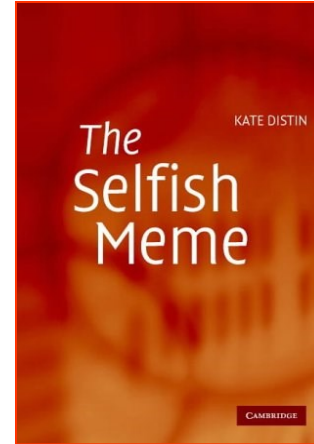
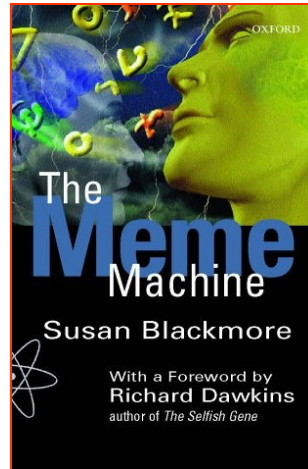
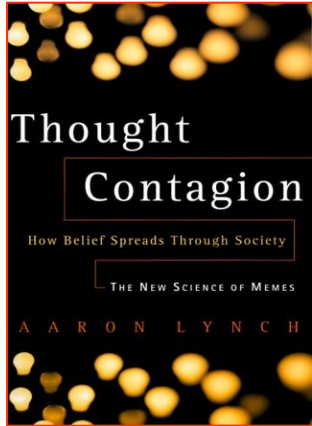
What is an example of a “self-destructive meme”?

- ▶ “Contagion” is another concept debated in this context (see A. Lynch).

Can you think of a meme you have been “contaminated” with, which you don’t want influencing you (but nonetheless does?) What are the implications?

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The burgeoning literature ...



[Journal of Memetics](#)
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And finally ... a
[comprehensive](#)
[website for ideas](#)
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