

MIND OVER MATTER

WORDS DAN STAPLETON ILLUSTRATIONS TANYA COOPER, THE ILLUSTRATION ROOM

Could Ryan Gosling and Grumpy Cat unlock the secrets of culture and human behaviour? And what does the MSG food scare reveal about the way knowledge spreads? We examine the burgeoning field of memetics and investigate the future of ideas in our increasingly globalised world. fter a long day spent campaigning for re-election in 2012, Barack Obama was reclining on a couch in one of his regional offices,

holding a classified document in one hand and his smartphone in the other. Meanwhile, Secretary of State Hillary Clinton was aboard a private jet somewhere over northern Africa, reviewing emails on her BlackBerry. It had been a dramatic week in global affairs, and Clinton wore dark glasses to hide her fatigue. Obama had not spoken to Clinton for almost 24 hours, so he fired off a quick text message. "Hey Hil, whatchu doing?"

Clinton's response was deadpan. "Running the world."

Of course, this amusing exchange between US leaders did not actually occur — it was dreamed up in April 2012 by two public relations employees who were inspired by a candid photograph of Clinton wearing sunglasses on a plane.



GRUMPY CAT

The concept: An image of an angry-looking pet cat accompanied by a bad-tempered caption, such as, "I had fun once. It was awful." How it spread: Like many memes, Grumpy Cat began life as an item on the user-generated-content site Reddit.
From there, it spread to Facebook and Twitter, encouraged by the pet's real-life owner, who created official Grumpy Cat accounts on both social networks.
Why it worked: It required no knowledge of pop culture or current affairs, and it tapped into a universal feeling: being in a bad mood.

But the joke spread so rapidly on the internet that it may as well have been true. Within a matter of hours, the image of Clinton and the accompanying text had been duplicated thousands of times on blogs, news websites and, most significantly, on social media channels such as Facebook and Twitter. In modern terms, the joke had become an 'internet meme' that had 'gone viral'.

The internet meme is a pop-culture phenomenon like none that has come before it: a bite-size thought or idea, often frivolous or witty, that spreads across the globe almost instantly, shedding light on our collective consciousness in the process. Internet memes are sometimes replicated accurately, but more often as was the case with the Clinton meme — they evolve, as members of the online community strive to improve upon or update them. This characteristic sets internet memes apart from other, more established forms of popular culture, such as the pop song or the advertising jingle.

The rise of the world wide web — and, in particular, social media — in the past decade has given these memes an environment in which to thrive. Indeed, memes as we think of them today would not exist without the internet. But the term 'meme' is not new. It was coined nearly 40 years ago by evolutionary biologist Richard Dawkins in his influential book *The Selfish Gene* a volume that spawned a new field of research called memetics, and which led to new ways of thinking about the very nature of ideas and how they spread through culture.

FROM DARWIN TO DAWKINS

Simply put, memetics compares the way that ideas spread through society with Darwin's theory of evolution. In the same way that biological entities are made up of genes, mental content is made up of units of information called 'memes'. According to Dawkins, these memes get copied from person to person, with the strongest or most useful memes surviving and the weaker or less useful ones fading away. In this way, it is possible to explain the success of any thought or idea (for example, a political belief): as it moves through a society, the process of natural selection causes it to thrive or fail. Complex thoughts or ideas (for example,

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AKA OVERLY ATTACHED GIRLFRIEND



The concept: An image of a wide-eyed young woman accompanied by a creepy/ possessive caption, such as, "I ran into vour ex... With my car." How it spread: Overly Attached Girlfriend is an example of a meme that changed formats. First, it was a moderately successful YouTube video in which a young woman mocked one of pop star Justin Bieber's love songs. As the clip gained popularity, people began taking screenshots and distributing them with 'Overly Attached' captions of their own. Why it worked: The young woman looked normal and wholesome, which provided a comical contrast with the text; and internet users the world over related to the theme of romance gone awry.

an entire political belief system) are made up of many memes, in the same way that genomes are made up of many genes.

"The fundamental idea of memetics is to treat habits, skills, words, stories — and indeed everything we copy from person to person — as information that evolves," says Dr Susan Blackmore, author of *The Meme Machine* and one of the world's foremost authorities on memetics. "Just as the competition between genes led to the evolution of the whole biological world, so the competition between memes led to the evolution of culture."

The analogy with genetics also extends to the idea of mutation. Just as genes are sometimes copied inaccurately, causing unexpected evolutionary steps, so too are memes. Blackmore refers to this as 'variation'. "Memetics is based on the idea that memes follow evolutionary [patterns] just as genes do," she says. "That is, they are information that is copied with [both] selection and variation."

Dawkins' *The Selfish Gene* was published in 1976, but thinking similar to his goes back even further. As early as 1966, American researcher Ted Cloak published papers comparing the spread of culture with evolution; while novelist William S Burroughs discussed the idea of language as a virus that jumps from host to host in several books and essays, including 1962's *The Ticket That Exploded*. However, it wasn't until the 1990s that memetics truly came into its own, thanks to the publication by Dawkins of a related paper, *Viruses of the Mind* (1991), as well as the appearance of important books by Blackmore and her peers.

Today, the principles of memetics are being applied to a broad range of disciplines, such as public relations (which uses a technique called 'viral marketing' to promote ideas) and political science. Meanwhile, researchers are using the internet and social media to conduct studies into memetics. One question being asked by these researchers is why some memes are more effective at spreading than others. For example, a recent study by climatememe.org showed that the concept of 'global warming' is not an effective meme because it creates negative emotions in the minds of those who learn about it. Which brings us back to 'internet memes', and the future of memetics in an increasingly connected world.

COGNITIVE CONNECTIONS

The rise of internet memes has focused public attention on memetics and renewed academic interest in the work of Dawkins, Blackmore and others. But the hijacking of the term 'meme' to describe a specific type of online content has ruffled the feathers of some in the field.

"It can be annoying that many people speak as though the word 'meme' refers only to internet memes that go viral," ►

GETTING THE WRONG IDEA

emetics makes no distinction between ideas that are true and those that are false. The historical statement 'The world is flat' can be viewed as a successful meme because it spread widely through society and became an accepted scientific truth. Similarly, some of the most effective memes of recent decades have been 'facts' that are actually incorrect.

Take, for example, the perceived health effects of monosodium glutamate, more commonly known as MSG. Decades of research have shown that the molecule — which is used to enhance the flavour of savoury food — has no adverse health effects when consumed in moderate doses. Yet the belief that MSG is harmful remains widespread in western society.

How did this happen? The 'MSG is bad' meme's origin can be traced to a single letter published by *The New England Journal of Medicine* in 1968, in which a doctor described a number of symptoms (numbness at the back of the neck, general weakness and palpitation) that affected him when he visited a local Chinese restaurant. The journal titled the doctor's letter 'Chinese Restaurant Syndrome', presumably as a joke, but the idea stuck that something in Asian cooking was harmful, and it was soon being reported by other news outlets.

During the 1950s and 1960s, MSG had become one of the most common ingredients in western processed food, because it was naturally occurring and, put simply, made many things taste better. But, says John Mahoney in an article for buzzfeed.com, "In America in 1968, conditions could not have been better for the meme to take root, thrive and replicate. At that time, there was not much research proving MSG was safe... There was a rising realisation that many [American corporations] were putting profits before the safety of their consumers... And, to many Americans, Asia was still a deeply foreign place."

These conditions allowed the 'MSG is bad' meme to spread rapidly, evolving as it was copied (sometimes inaccurately) from source to source. Before long, one doctor's report of an isolated set of symptoms had become accepted by the mainstream as an indication that Asian food was bad for you.

NAVIGATE {*memetics*}

Blackmore says, "when really it refers to all information copied by people, books, computers and phones."

Dawkins agrees that the original definition of the word 'meme' has become obscured, but argues that the spirit of his original argument remains intact. In a 2013 interview with wired. co.uk. he described a successful meme as "Anything that goes viral. In the original introduction to the word 'meme' in the last chapter of The Selfish Gene, I did actually use the metaphor of a virus. So when anybody talks about something going viral on the internet, that is exactly what a meme is." The word 'meme', he adds, has simply been appropriated by the online community to describe a particular type of content that 'goes viral' (usually a captioned image).

Scholars at several universities are currently researching how internet memes can illuminate the work of traditional psychologists. For example, Carl Jung's theory of archetypes states that a number of identical characters such as 'the wise old man' and 'the mother' — exist in everybody's subconscious from birth, and form recurring motifs in all human cultures. Researchers are now examining whether memes can back up Jung's theory. "The construction of internet memes could serve as a tool to study whether archetypal ideas do, in fact, exist," cognitive scientist Shaikat Hossain wrote in 2012 in Jung Journal. "The field of memetics provides an impetus for social scientists to explore exactly which ideas have the tendency to go viral."



RYAN GOSLING: 'HEY GIRL'

The concept: An image of Hollywood heart-throb Ryan Gosling accompanied by the words "Hey girl..." and a romantic phrase, such as, "You complete me." How it spread: The meme was born on a Ryan Gosling fansite and soon inspired the creation of a number of single-topic blogs, such as Feminist Ryan Gosling ("Hey girl... If I had a hammer I'd smash the patriarchy") and Shakespearean Ryan Gosling ("Hey girl... To thine own self, be true").
 Why it worked: Unlike many memes, Hey Girl didn't rely on sarcasm or negativity, making it a refreshing alternative. Plus, Gosling is very attractive.

Blackmore, too, says that the internet is a useful research tool for those who are interested in memetics. In fact, she says, it shows us with previously unattainable clarity how ideas spread. "The internet reveals what has long been going on in human culture: the fierce competition between memes to get picked up, stored, and then passed on again," she says. "The winners spread through the world and the losers fizzle out.

"We can learn a lot from studying how and why some [internet] memes succeed while others fail."



THE FUTURE OF MEMETICS

Richard Dawkins speaks to Voyeur about where memes go next.

"Meme theory is in its infancy, and memes are too. They resemble the earliest 'primeval soup' replicators, fumbling their way billions of years ago towards becoming true genes collaborating to make cells and multicellular bodies. There is no doubt that memes exist as self-replicating entities. The interesting question is whether the Darwinian selection to which they are subjected can lead them on to the next stage — mutually reinforcing cooperatives or 'memeplexes', constructing elaborate survival machines for themselves. Will there be a memetic equivalent of a 'body' and what role will the internet play in its genesis?"