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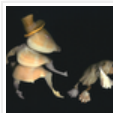


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# [epiphenom]

## the science of religion and non-belief

### The evolution of nice

By Tom Rees on [Wednesday, March 30, 2011](#)

Most people reading this blog will have heard of the "selfish gene" - the idea, formally defined by Hamilton and popularised by Dawkins, that what matters from the perspective of evolution is not organisms, but genes.

Those genes that maximise their chances of survival - regardless of what happens to individuals - will be the ones that come to predominate.

It comes in for a lot of flack, mostly from people who wrongly equate selfish genes with selfish people. To be fair, there is also a lot of confusion over terms, with old ideas being reinvented under new terms - like "group selection".



Stuart West, an evolutionary biologist at Oxford University in the UK, is here to put us straight. In a [recent paper](#) written specifically with social scientists in mind, he lays down the power of the selfish gene. It's a great paper that takes a look at why so many misconceptions have taken hold and lays out, in non-specialist language, the reasons why most criticisms of the 'selfish gene' are the a result of confusion rather than insight. Anybody who's interested in the evolution of human altruism should read it!

Most people with an interest in evolution understand why selfish genes do not mean selfish individuals. It's clear that selfish genes will benefit from co-operation (you scratch my back and I'll scratch yours, also known as reciprocity), and kin selection (as the biologist JBS Haldane famously put it, "I would lay down my life for two brothers or eight cousins").

What most people may not know (I certainly didn't before reading West's article) is that these, in fact, are the sole genetic basis for altruism (barring some esoteric mathematical possibilities of little practical significance). But if that's the case, how do you get from here to the apparently completely selfless altruism sometimes seen in humans? How come we are kind to strangers?

Well, it really is all to do with how humans work together in groups.

#### You scratch my back and I'll scratch Bob's

Reciprocity doesn't need to be direct to be effective. If, by sharing with you I help to set up a virtuous circle, that will likely result in some benefit to me down the line. This has been seen in practice, with virtuous deeds propagating out to at least [three degrees of separation](#).

In group life, the issue is even clearer. If my deeds help the group to survive and grow, then I will benefit. From a genetic perspective, it doesn't matter that most of the benefit goes to others - so long as I also get some overall survival benefit.

#### I would lay down my life for eight cousins... or the bloke who lives next door

Throughout most of human existence, we've lived in small groups and not travelled much. What that means is that, for our ancestors, pretty much everyone they met was a close genetic relative. Even if they were not related in any formal sense - not brothers, or cousins, for example - they would still be carrying similar genes.

And that means that your 'kin, from a genetic standpoint, is likely to be anyone who's in your group. Even people in neighbouring groups are going to be closely related.

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#### About Epiphenom

I want to know why some people believe in gods, and what the psychological and social consequences of those beliefs are. I read the research, and when I find something juicy I write it up and post it here! If you've found something interesting, or just want to say 'Hi!', then drop me an [email](#).

Who am I? Well, I'm a medical writer by profession, living and working on the south coast of England. I have a PhD in biotechnology, and an interest in what makes people tick.

My contribution to the sociology of religion, on the causes of international differences in religiosity, was published recently in the [Journal of Religion and Society](#) (see [related blog post](#)).

#### In the media:

- I'm an Op-Ed columnist for [Free Inquiry](#), the largest-circulation humanist magazine.
- Reasonable Doubts Episode 62 - [Religion and Society](#)
- [Who needs God?](#) - article in New Humanist January 2010.
- Appearance on [BBC Radio 4](#) in August 2009.



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So evolution would favour genes that promote altruism to anyone nearby - since they likely carry the same genes. It won't be perfect, but so long as migration is low, it's a good enough rule of thumb.

### What's this got to do with religion?

It's popular at the moment to talk about religion in terms of 'gene-culture co-evolution'. The idea behind this is that religion is a cultural adaptation that builds upon a bunch of otherwise unrelated psychological misfirings to promote pro-social behaviour. Since cultures that are pro-social are more successful, religion spreads.

All well and good, but the question then is, what kind of altruism does religion promote? If it promotes the kind of altruism that is directed towards neighbours, then it's working together with evolution, and so the two can co-evolve.

But religion that promotes more general altruism - 'universal love' - is not going to be favoured, at least from an evolutionary perspective.

Of course, in the modern world we see a lot of both kinds of religion. The challenge for anyone trying to explain religion in terms of evolutionary psychology is to explain this!

West, S., El Mouden, C., & Gardner, A. (2010). Sixteen common misconceptions about the evolution of cooperation in humans *Evolution and Human Behavior* DOI: [10.1016/j.evolhumbehav.2010.08.001](https://doi.org/10.1016/j.evolhumbehav.2010.08.001)



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## 4 Comments:

**Roy Sablosky** said...

*religion is a cultural adaptation that builds upon a bunch of otherwise unrelated psychological misfirings to promote pro-social behaviour.*

This is false. That religion promotes pro-social behavior is a myth promulgated by people who make their living from religion. See my recent post on [the "group selection" explanation and how it fails](#).

Wednesday, March 30, 2011 10:12:00 PM



**Sabio Lantz** said...

Some claim that by practicing the attitude of universal love/compassion it will lead to greater happiness of the practitioner. If the practitioner is happier, this may have some adaptive advantages: attracting mates, establishing that 'virtuous circle' you spoke of, health and more. So though the math of physical aid to strangers far from the practitioner's actual social circles may predict lack of survival advantage, it may not take into account the affect of the person themselves and the repercussions resulting.

Thursday, March 31, 2011 11:12:00 AM



**Chris in The Morning** said...

great post.

The problem of religion is that it promotes hate to other religions, and, as all that is made by humans and implies power, it's totally corrupted (besides of it's antinatural ideas (no sex and so on))...

Thursday, March 31, 2011 3:46:00 PM

**evodevo** said...

The problem is, you are thinking/comparing the modern concept of religion, i.e. priests, temples, organized tithing, etc. This is a product of the agricultural revolution and the rise of the city-state. You need to get back to basics. What were the religious practices of North American or African hunter/gatherers? Some anthropology studies might help clarify this. In any case, any of the related bands would have had the same approximate religious beliefs/superstitions/taboo and those were usually integrated thoroughly with everyday life, and served to tighten group

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» [Religious young adults become obese by middle age: Cause may be unhealthy food at religious activities](#)

More evidence on the peculiar link in the US between religion and obesity. Last year we learned that Methodist ministers are particularly susceptible.

» [Religion is irrational, but so is atheism - Jonathon Lanman in New Scientist](#)

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cohesiveness. Do some cultural anthropology field work in any small village in Eastern or Western Europe (or Appalachia) and you will be amazed.

Friday, April 01, 2011 1:05:00 AM

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## Websites

- [Humanists4Science forum \(Yahoo Groups\)](#)
- [British Humanist Association](#)
- [Humanist Universe by BHA \(Netvibes\)](#)
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