Science AMA Series: I’m Professor Chris French, Director of the Anomalistic Psychology Research Unit at Goldsmiths, University of London. I’m back on Halloween to talk about my research on the psychology of paranormal beliefs and experiences. AMA!

ProfChrisFrench1andr/ScienceAMAs

1Affiliation not available

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Is belief in the supernatural 'built-in' for humans (an evolutionary advantage, perhaps)?

Do you know of any isolated groups of people (a tribe or island community, etc.) who hold no supernatural beliefs at all?

aGoodbyeToGuns

To answer your first question, yes, I think that supernatural beliefs arise as a consequence of cognitive biases that have served us well in our evolutionary history. Following Daniel Kahneman and others, it is now generally accepted that we all have two modes of thought, often referred to as System 1 and System 2 thinking. System 1 is fast, effortless, parallel, non-conscious, based upon emotion, and driven by heuristics (quick and dirty rules of thumb that usually give the right answer). We can think of it as intuition. System 2 is slow, effortful, serial, conscious, emotionally neutral, and driven by rules. We can think of it as reasoning. We are (all of us) more driven by System 1 than we might realize. The big advantage that System 1 has over System 2 is speed – System 2 may deliver the right answer more often than System 1 but it is much slower.

A number of cognitive biases that characterize System 1 would have helped us to survive in the past by delivering fast conclusions that were usually correct – or at least did not cost us much if they were wrong. Everyone always gives the same example, so here we go…

The stone-age man who assumed that any rustling in the bushes was a predator would be much more likely to pass on his genes to the next generation than his System-2-reliant next-cave neighbor, standing their scratching his beard and thinking the matter through.

A number of cognitive biases would have served us well in our evolutionary history even though they might lead to the wrong conclusions when over-applied including our ability to see meaningful patterns and make meaningful connections – even when they aren't really there. We are also susceptible to what is sometimes called the "intentionality" bias – i.e., when things happen, we assume someone or something made it happen – even natural events. Most of us do inhibit such tendencies but they do
still operate below the surface. It is easy to see how such tendencies could lead to belief in supernatural beings.

Hello and thank you for this AMA. I'm not a believer in the paranormal, however, I do have problems with very vivid night terrors. I do not have positive dreams. I also experience sleep paralysis, 2-3 times every two months and usually sleep on my back. When I do wake up (at least once) my emotions are very real as if it happened and I'm usually crying, sweating or uncomfortable. It affects my daily life and I sincerely hope that your research will help shed light on cures for this. I'm mid-30s and I just want to have peace at night and it seems like it has only got worse in the past few years. I dread going to sleep.

My question for now: Is there anything I can do during the day to prevent this from happening? Are drugs the only solution?

Vardogr_Sound

You have my heartfelt sympathy – along with the thousands of other sufferers worldwide that are also affected by severe sleep paralysis (SP) episodes. The sad truth is that there is an almost total lack of good quality research assessing the best ways to cope with SP. There are two aspects to this. The first would be advice re. reducing the frequency of attacks. Generally, the best advice here is to try to adopt good “sleep hygiene”. That is to say, sleep and wake at regular times and avoid anything that might disrupt your sleep cycle, e.g., jet-lag, shift-work, clubbing, etc. Avoid sleeping on your back if you can (some people report some success with sowing walnuts into the back of their pyjamas to make it uncomfortable to sleep in that position).

People use various strategies to cope with an attack once it starts, the most common being to simply try to move even a little finger by a huge effort of will. This will “break the spell”. If you sleep with a partner, perhaps s/he could attempt to pick up on any tell-tale signs that you are experiencing an attack (e.g., quiet groaning) and wake you up when it happens? Some people report that they have learned to recognize when an attack is taking place and simply “relax into it” – they enjoy it the way they might enjoy a good horror film! Others report they have tried this and, even though they know it is not real, they still are absolutely terrified.

We are very keen to carry out proper research to systematically test the effectiveness of these various strategies but have so far been unable to obtain funding.

What is a common theme among the people who claim to have had alien contact?

DeathBehemoth

Based upon my own research and that of others, I believe that the majority of cases of alleged alien contact are based upon false memories. While we must avoid “one-size-fits-all” explanations for such a rich and complex phenomenon, many cases would fit with the idea that an initial bizarre experience (e.g., “missing time”, finding “unexplained” scars on the body, sleep paralysis) leads people to the belief that they may have been abducted by aliens but that the aliens have wiped their memories for the full details. They then use various techniques such as hypnotic regression to try to “recover” these memories. Contrary to the view offered in Hollywood movies, hypnotic regression does not provide a magical key to unlock hidden or repressed memories. Instead, it provides the perfect context for the formation of false memories based upon fragments of real memories (including those from books, films, etc.), imagination, expectation, and so on. With hypnotic regression, you tend to get what you expected to get. If you expect alien abduction memories, that’s what you get. If you expect past-life memories, that’s what you get. If you expect memories of ritual satanic abuse memories, that’s what
you get. These are all almost certainly false memories.

What culture have you studied that has the deepest roots in paranormal beliefs? Religion, war, social.

**dldocanal**

I took part in a fascinating documentary about reincarnation claims amongst the Druse back in 1998. The Druse are a religious sect, the members of which all believe in reincarnation. They believe that everyone is reincarnated (even sceptics!) but that you only remember your past life if it ended prematurely (e.g., violently). Their belief system beautifully illustrated the way in which beliefs can serve very positive functions even if they are not true. Thus the close-knit Druse community was tied together not only with biological family ties but also by links between families through the reincarnation of a family member into a different family. In common with reincarnation claims around the world, the past-life family is almost always of a higher social class than the biological family. If the reincarnation claim is accepted by the past-life family, they may well help the poorer family in various ways. Finally, the Druse have a history of being persecuted by other groups – but they also have a reputation as fearsome warriors which has no doubt helped them to survive such persecution. Their belief of instant reincarnation at the point of death no doubt contributes to this. Their battle-cry is, “Tonight in my mother’s womb!” – in other words, if they are slain, they will be instantly reborn.

How much of our belief in the paranormal is related to social psychology? Are some cultures/age groups/socio-economic statuses more susceptible to beliefs and experiences of the paranormal?

**DoomsDaisyXO**

Excellent question! Paranormal beliefs (and reports of ostensibly paranormal experiences) are found in all cultures, both geographically and historically, although the content of the beliefs may vary considerably. Within modern Western societies, it does appear that in general women express higher levels of belief than men – with some interesting exceptions. Men show higher levels of belief in alien abductions and such entities as the Loch Ness monster and Bigfoot. With respect to socioeconomic status (SES), higher levels of belief in “traditional” superstitions (walking under ladders, black cats, etc.) tend to be found in lower SES groups but others (e.g., belief in complementary and alternative medicines) are found in higher SES groups. The relationship with age and paranormal beliefs is complex but in general paranormal belief declines with age.

What’s the most bizarre thing you’ve experienced while you undertook your research? Do paranormal beliefs mainly exist to explain what cannot be explained or is there really something out there?

**notostarfish**

While I would not presume to claim that I can offer definitive non-paranormal explanations for every single paranormal claim that has been put before me, I have never come across anything during my research that has persuaded me that paranormal forces really do exist. Having said that, I have taken part in a couple of TV programs which dealt with claims that were certainly intriguing. Both were originally broadcast in the “Extraordinary People” documentary series. The first was called “The Man Who Paints the Future” and told the story of David Mandell, an artist who claimed to have precognitive dreams. He used to paint pictures of his dreams and then stories would appear in the news that he felt he had predicted. For example, he painted two pictures of the Twin Towers collapsing – one a couple of months before it happened and the other 5 years before it happened – to the day! Of course, there are possible non-paranormal explanations but it was, as I said, an intriguing case. The other program was called “The Boy who Lived Before” and featured the case of a little boy from Glasgow who claimed
to remember a past life. Some of his recollections seemed to correspond to real events, others did not.

Again, my role was to offer non-paranormal explanations, which I did, but again it was a fascinating case worthy taking seriously. In answer to your second question, yes, it often the case that paranormal beliefs appear to provide explanations for unexplained events but they serve other functions too, e.g., belief in life-after-death helps people to cope with the fear of mortality. IMHO, paranormal forces do not exist – but I could be wrong.

As an academic, what do you think of the work of the late John Mack - the Harvard professor who began writing on Alien Abduction as a psychological phenomena - but then became convinced by a growing body of evidence that "something was indeed going on that was not explainable by conventional science"?

In the same vein, what do you think of the work of Professor David M. Jacobs (retired from Temple University).

Thisishugh

I am afraid that I am not impressed with the evidence and the reasoning of either. Having said that, I think both had every right to present their views. Academic freedom should be protected even when we disagree with the views being expressed. I have given the reasons I have for the views I hold on alien abduction claims in numerous places including a chapter in a forthcoming book (out this week in the UK, later in the US) edited by Jim Al-Khalili (perfect stocking filler - the book, not Jim!).

What's the most interesting case you know of a debunked paranormal experience?

flailing_uterus

I have lots of personal favourites but certainly one that would be very near the top of the list would be Melvin Harris’s masterful debunking of the so-called "Bloxham Tapes". Arnall Bloxham was a Cardiff-based hypnotherapist who used to hypnotically regress people back into past lives and record the accounts given. In contrast to most such cases, the accounts were often detailed and largely accurate. It turned out though that the accounts of one of Bloxham’s star cases, that of Welsh housewife “Jane Evans”, were based upon historical novels based upon real historical figures. For example, Jane’s narratives included not only accounts of her interactions with historical characters who had really existed but also with the fictional characters that the author had made up just to help the plot along.

What's the best explanation for so many twins/siblings describing simultaneous thoughts/ideas or feeling each other's pain without actually sensing it?

Nihilisticky

One possibility is, of course, that telepathy really does exist and that twins have it more strongly than others but there are other possibilities. It may be, for example, that being of identical genetic make-up and thus having similar preferences and even attitudes, twins simply “think along the same lines” more than others (as do some close friends and lovers). Susan Blackmore did a nice little experiment on this years ago. It was a telepathy experiment in which one twin acted as "sender" and one as "receiver". When the first twin was allowed to pick the target, the twins appeared to score higher than chance - but not when the target was selected at random. The explanation was obviously that the twins shared the same preferences.

This would not explain the "shared pain" experiences, of course. Although they are mainly anecdotal
(and thus hard to properly assess), there is the possibility here of doing properly controlled studies. This is an area worthy of further study.

I worked in a Norwegian psychiatric treatment facility for elders, where we had a patient with firm beliefs he/she was of an alien species and had contact with angels and aliens. We were bound by legality to treat these beliefs as religious/lifestyle and thereby "non-psychotic". How do you view such beliefs? Religious/lifestyle or psychotic?

aksel9000

It can be hard to make the distinction. I'm told that many millions of people worldwide believe that a consumed wafer literally turns into the flesh of Jesus Christ and that wine literally turns into his blood...

Seriously, there is an increasing amount of evidence that the main distinction between those who end up being labelled as "psychotic" and those who don't is how they themselves interpret their anomalous experiences. If a person is distressed by the voices in their head, they may need psychiatric help. If they believe it is the voice of God, they may end up as a saint (or not). If they believe it is spirits, they might end up making a good living as a medium.

The idea of the "happy schizotype" is well-supported by evidence - people who have quite a lot of very weird experiences but are not distressed by them.

What is your opinion on dealing with "spiritual advisers" and those who earn money by teaching the "Law of Attraction"?

I have a friend who's partner works in this role, despite never having challenged her on this she avoids me like the plague. (I'm a neuroscientist and a few friends have asked me to confirm or dis-confirm some neuro-bollocks she's come out with.) I've asked colleagues in psychology and opinions range from "mostly harmless" to "utterly contemptible".

stoter1

These ideas are complete nonsense - and not always harmless. If people try to employ such silly ideas to deal with real problems - such as health issues - the results can be disastrous.

What paranormal event has been the hardest to explain?

Beerandmeat

I've given a couple of examples of cases I found intriguing already but in general, of the cases that I have personally been involved in, very few have ever seriously challenged my skepticism. Having said that, I do believe that some paranormal claims offer a stronger challenge to sceptics than others, e.g., dream telepathy studies, (some) spontaneous past-life memory cases, Ganzfeld studies.

What are your thoughts on altered states like the ones described here

It seems that such experiences are often interpreted as having paranormal causes or appear to the experiencer as being divinely caused. Seemingly, this is an extension of psychedelic experience wherein experiencers may 'encounter' extra-dimensional beings, especially while on substances like DMT.
Does your work overlap at all with people's experiences on psychedelics and supernatural explanations for psychedelic phenomena?

It does but I would not claim to be a real expert in that area. Others, such as Dr David Luke (Greenwich University) has more expertise on this topic than me.

What made you stop being a believer in the paranormal, and what are effective strategies for getting others to stop?

In my own case, it was reading a book called “Parapsychology: Science or Magic?” by psychologist James Alcock. I read the book when I was doing my PhD (in a completely unrelated area) and found it very convincing. It provided plausible non-paranormal explanations for ostensibly paranormal experiences and a strong critique of parapsychology. That opened up the whole world of skepticism for me – including the works of Martin Gardner, James Randi, Carl Sagan, Ray Hyman, Susan Blackmore, and so on. As a humanist, I do not really mind what other people believe so long as (a) it does not harm other and (b) they get neither special treatment nor discrimination as a result. As a scientist, however, I am interested in what is true (not just what beliefs might make us feel good). I think it is important to encourage critical thinking in society to avoid the real dangers of some superstitious beliefs. It is about teaching people how to think, not what to think.

Hey Chris, I'm a big fan!

You say that up until early adulthood you believed in paranormal phenomena, until you started learning about how our cognitive processes can fool us.

I'm curious, given all your research and knowledge, do you ever 'catch' yourself still being afraid of something statistically improbable? For example, you hear a bump in the the night, does your mind first jump to "it's a ghost / serial killer", or do you first think "the cat knocked something off the table"?

Do you think that, if you spent an evening priming yourself to attribute something that would trigger a fear response to the paranormal, you would be more likely to jump to that conclusion before rational thinking kicked in (you spend the night watching scary movies / reading spooky books, are YOU more likely to attribute something going bump in the night to a dangerous situation than if you had spent the night watching comedies)?

I guess what I'm saying is, does your specialization in this area of psychology tend to negate your fear of the unknown, or does spending so much time researching weird phenomena actually prime you to think about that first given an unknown stimulus?

Thanks again for doing this AMA!

When taking part in TV programs, I sometimes find myself sitting in the dark in supposedly haunted locations filming myself with a night camera. I find it about as scary as watching paint dry. I think to myself, "Why am I doing this?" Then I remember - they pay me!

Seriously though, for all my scepticism, I still, on rare occasions, can get freaked out by weird noises if I'm home alone. It's very hard to overcome millions of years of evolution!
I am a religious person, but I am not very superstitious outside of my beliefs. I have met other people of my faith who are extremely superstitious, and I have also met non-religious people who are very superstitious. Is there a connection or correlation between religion and superstition or paranormal beliefs? Are certain groups likely to be effected by fear of the paranormal more than others?

BigStupidJelly-Fish

I am an atheist but I try not to let that influence my interpretation of the evidence. Without wishing to cause offence, I tend to think of all of the following as different manifestations of magical thinking: superstitions, paranormal beliefs, religiosity, New Age beliefs, belief in alternative therapies, even conspiracism. It is certainly the case that the underlying psychological factors seem to be similar across all of these domains - and all tend to increase in times of uncertainty (both at the personal level and at the societal level).

JesseGrave

I know of a friend who's entire family has experienced the same paranormal event together as well as on separate occasions. A woman spoke to them and appeared from nowhere. He also has accidental photos. How can things like this be explained?

JesseGrave

I could not even begin to offer a definitive explanation without knowing all the details - and quite possibly not even then.

One possibly relevant factor though is the phenomenon of "memory conformity". When multiple witnesses all provide very similar accounts of an unusual event, it is not unreasonable to give that more evidential weight than a single uncorroborated account. However, it should be borne in mind that when when multiple witnesses see an unusual event - such as a crime or a possible sighting of a ghost or a UFO - they will discuss it with each other. It is then possible that one person's account (accurate or not) can directly influence another witnesses memory. Krissy Wilson and I recently reported an experimental study that directly demonstrates this effect:

So I'm having the strangest date of my life November 11th at the Capital Center for the Arts in Concord, NH. I'm taking my girlfriend to see Maureen Hancock, internationally renowned "spirit medium." VIP tickets and everything.

To be clear, my girlfriend is into this stuff and I don't believe a smidge of it. However, she's attended these types of things before and swears up and down that she and others like her are able to know things there's no way they could know.

I'm really not sure what to expect, but can you give any insight on what the believer is experiencing? If this is a con, how does the con work? I'm not going to do anything to ruin my girlfriend's experience, but I personally want to have a better understanding of what's really happening.

samx3i

French's Law: The higher the profile of the psychic, the more likely it is that they resort to deliberate fraud.

Some (maybe most?) people who claim to have psychic abilities are IMHO sincere. I think they are fooling themselves as much as they are fooling others. These people are known as "shut eyes" in the trade.
"Open eyes" are those who use deliberate tricks. You can convince complete strangers that you know all about them by using a technique known as cold reading:

http://skepdic.com/coldread.html

Alternatively, you can do all of background on your client before they even arrive. This is known as hot reading:

http://skepdic.com/hotreading.html

Enjoy the show!

Is sleep paralysis hereditary? As a long time sufferer I fear my daughter will have the same issue. Having suffered as long as I can remember (far more rare as an adult than what I experienced as a child) I have an audible trigger than I utilise consciously which (eventually) wakes me (in my head it's screaming, my wife says it sounds like long "wooh" sound), if I see it affecting my daughter, what is the best method to deal with it? I have heard that physically waking the person is a bad idea. Why?

angrylibear

There is a genetic component to susceptibility to SP:


It is OK to wake someone suffering from SP - it will not do any harm at all.

Is it taboo to consider religion in your research?

PhysicsNovice

Increasingly, no. It used to be but I don't think you can really separate religion from the paranormal.