

Joan C. Harthan. BSc(Hons), PhD

(Nottingham, UK)

[joan.harthan@nottingham.ac.uk](mailto:joan.harthan@nottingham.ac.uk) / [J.Harthan@ntlworld.com](mailto:J.Harthan@ntlworld.com)

(+44)01509 559177

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TITLE: Dream Precognition: a conundrum of Time or Mind?

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*"People like us, who believe in physics, know that the distinction between past, present and future is only a stubbornly persistent illusion." **Albert Einstein***

Mention that you sometimes dream about the future and many people, outside of IASD, will immediately change the subject. Those that don't may assume that you are academically-challenged and have not considered the scientific implications of the statement you just made. Dream precognition is not an acceptable topic of conversation in the lofty halls of academia, at least not in the UK, despite the fact that long term dream journalists, like myself, know that there is something very strange going on. We cannot ignore our dreams, and nor should science.

#### *Pioneering work by John Dunne*

The 1920's witnessed some interesting experiments in precognitive dreaming when an aeronautical engineer, working on military aircraft, decided to put it to the test. His name was John W. Dunne (1875-1949) and his precognitive dream about the 1902 eruption of Mount Pelée in Martinique, is well documented.<sup>1</sup> The dream so impressed him that he started to keep a regular Dream Journal and noticed that he frequently dreamed of events before they happened. Discounting mystical or supernatural explanations, he decided that it must be something to do with the nature of time and, being a true scholar, he devised an elaborate mathematical theory to support his speculations about the nature of time and space. He called his theory Serialism. The scientific community dismissed his ideas but the general public, who tried out his suggested experiments, were eager to provide anecdotal evidence that seemed to substantiate his claims.

Most people who keep a daily dream journal can provide similar anecdotal evidence of the future popping up on a regular basis. Of course, the rub is that these precognitive elements can usually only be identified after the real event has taken place. In addition, the dream premonitions often foresee insignificant minutia; things that don't matter and are not important on the grand scale of things. Some people may think this a good reason for paying little or no attention to this apparent phenomenon, but it's actually a very interesting observation that calls into question our current understanding of nature; whether that is in respect of cosmology or in the way the human brain processes information.

*Can the claims be proven?*

Of course, if the dream turns out to be a premonition of a national or global tragedy, the dreamer is understandably convinced of its authenticity. But this will not impress the scientific community, as evidenced by the experiences of those who claimed to have dreamt of major disasters like Aberfan and the destruction of the Twin Towers in September 2001. Even where dreams were recorded and independently verified before the real event took place, it can still be argued that it could all just have been coincidence. Of course, the longer the time lag between the dream and the real event, the greater the probability that it was indeed coincidence. But there are instances where predictions, based on a dream, have been made before the event. For instance, Chris Robinson uses his own personal symbolism as dream markers for adverse future events. He claims to have accurately predicted numerous IRA bomb explosions in the 1980s, even down to providing the police beforehand with the postcode of the area about to be bombed. Cases like this, however, are the exception rather than the rule. The majority of possibly precognitive elements are about everyday events and people going about their normal business. Our *dream-maker* will often distort and manipulate the event in such a way that it's almost impossible to recognise the dream as being

precognitive until after the “real” event has taken place. In such cases, the claim that they are predictive can never be adequately substantiated. The trouble is that for every event, and indeed non-event, there are an infinite number of possible outcomes. Many IASD members will have participated in the Dream Precognition contests held during the annual PsiberConferences. Whilst being very interesting and highly entertaining, they are impossible to statistically validate. Setting up controlled experiments is not impossible, however. It was done by Montague Ullman and Stanley Krippner at Maimonides in the 1960's but subsequent studies have been unable to repeat the success they reported.

*Is mainstream science making unreasonable demands?*

One feels that irrefutable “proof” of precognition would need to be an exact blow by blow account of the predicted event. Of course, this just doesn't happen. Dreams speak in symbols and metaphors and so it is extremely difficult to accurately interpret and predict a future event. However, I would suggest, in this case, that the idea of what constitutes scientific proof needs to be modified. No one would argue that elements from the past and the present occur in dreams and that these elements are rarely an exact replica of the actual event. This being the case, is it reasonable to expect precognitive elements to be an exact account of what will manifest in the future? Can we justify an expectation that resemblances to the future are more striking than those to the past? I think not and I wonder whether the connections we make in our dreams are the result of unconscious perceptions of events or situations in terms of the “energy” or emotion that is stirred. For instance; if we feel fear, we will spontaneously connect this emotion to other things that make us feel fearful and, inevitably, this will introduce highly subjective symbolism, drawn from our present and our past; and maybe our future. If this is the case, it's no wonder that it's difficult to tease out and identify precognitive elements.

*Is it just a question of possibilities?*

Could it be that the precognitive elements in our dreams are nothing more than possibilities?

Could it be that the subconscious is rehearsing different possible outcomes for current situations and that it's only those things that actually happen that seem to be precognitive?

The precognitive elements may simply be "what if" scenarios, stimulated by an actual waking event. For instance: an actual waking event could set off a chain of events that may lead to the events in the dream thus acting out the Law of Cause and Effect.

So, if **A** represents an event or decision or meeting, **B C D E** may represent crossroads or places where free will can operate and decisions can be taken. Then:

**A** → **B** → **C** → **D** may lead to the most probable end result **E**.

But, consciously you may choose:

**A** → **B** → **C1** → **D1** leading to a different end result **E1**

Or even,

**A** → **B** → **C1** → **D2** leading to an end result **E3** which may have seemed improbable at the outset.

Research in the area of past and future memory seems to support this idea.<sup>2</sup> Using functional magnetic resonance imaging (fMRI) it has been found that the areas of the brain that are active when we recall our personal past are almost identical to those that are activated when we think about the future. These areas of the brain have been traditionally referred to as the "autobiographical memory network", giving evidence that the brain uses memories as raw material for constructing possible futures.

*"Projecting the future may not be the major function of memory, but it certainly is one of its primary functions."* – Psychologist Daniel Schacter of Harvard University, quoted in New Scientist Issue 2596

Of course, this would make a lot of evolutionary sense. If you were attacked by a hostile and powerful tribe whilst drinking at a water hole, it would be very helpful to rehearse what might happen should you venture there again. It would also be very useful if you had “inner visions” that suggested where you might find an alternative supply.

So, if the precognitive elements in our dreams are possibilities based on a current situation, then you might expect to have dreams, (perhaps anxiety dreams), whenever you make a decision or take action that leads you away from the path that your subconscious was “expecting” you to take. Perhaps the subconscious path is the one that best serves your survival. In the example given above; you might experience nightmares about going back to the same water hole, whereas your dreams of finding a new watering hole will likely be positive and happy. If this is the case, it would make sense for your subconscious to continually update its predicted future in terms of the most likely outcome as new data is received. This hypothesis, of course, assumes a direct connection between cause and effect. Something happens that causes the subconscious to predict a possible outcome. Of course, this can’t satisfactorily explain the appearance of impersonal, random future events in our dreams.

### *The problem with Cause and Effect*

The idea of cause and effect operating along a linear time line has caused me a few sleepless nights over the years. Is this the reality of the Universe or is it just our own perception of an underlying reality that is beyond our understanding? The idea that every effect has a cause has been around for thousands of years. But what if it’s wrong? Haven’t we all debated the chicken and egg scenario at some point in our lives? It’s a thought experiment that takes us

round and round in ever decreasing circles. The same conundrum of course applies when we consider the origins of the Universe. Whether we subscribe to the view that a Divine entity created heaven and earth, or the Big Bang, or something in between, there's a problem if we apply the rule of cause and effect. There must have been something else that caused these things to come into existence in the first place. But could we be mistaken? Perhaps that isn't how the universe (or our brain) works at all.

*Consider reciprocal balance*

Have you ever considered that Life, the Universe and Everything may obey the rules of a well-known scientific principle known as reciprocal balance?<sup>3</sup> I stumbled on this idea by chance whilst Googling for something quite unrelated, (McNally 2007). It's a term intended to describe an equal and opposite reaction in dynamic equilibrium, meaning that two reversible processes are occurring at the same rate in opposite directions. Mathematics requires that the elements on opposite sides of the equation are equivalent, or equal. So for instance, consider the reaction  $AB \rightarrow A + B$ , which simply tells us that AB is able to fall apart (dissociate) and exist as two separate entities A and B. In scientific terms this could be described in terms of an increase in entropy.\* The way we have written the reaction implies that AB existed before A + B. But where did AB come from? What if we stop asking questions about the original source and look at the problem in the same way as we look at all chemical and biological reactions? If the equation was actually  $AB \leftrightarrow A + B$  then either side of the equation could be seen as having an existence before the other. Of course, our original question about the origin of A and B has not been answered but at least we now know how AB (the past), and A and B (the future) can all exist together without any paradox. This idea is no longer as far fetched as it may have once sounded. Leading researchers in Quantum

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\* Entropy is the measure of the amount of disorder (or chaos) in a system. The entropy of the Universe is constantly increasing but life somehow defies this universal Law by temporarily producing order out of chaos.

Physics have recently proposed that there are an infinite number of universes in which all possibilities exist simultaneously in a universal, timeless dimension, with each possibility being played out to its conclusion. In other words, everything exists simultaneously in the eternal present. Science fiction? We mustn't forget that most of our scientific "fact" of today was once an implausible (impossible) concept in someone's mind.

*It all depends on the nature of existence*

So, if the universe is governed by a process of natural balance in the eternal now, then the source of that equilibrium must reside within the very architecture of existence itself. If things act and react in accordance with their nature, and their nature is dependent on the composition of the qualities they possess, i.e. an inherent property of their being, then this might explain our observation that sometimes what we interpret as the effect comes before what we see as the cause.

Two famous 21<sup>st</sup> century cosmologists, Stephen Hawking and Thomas Hertog have proposed an interesting theory along these lines. They have rejected the notion of a unique, observer-independent universe that we have all taken for granted for so long, and thrown the sacred laws of cause and effect into question by suggesting that the universe we observe is affected by our observation of it – of course this is an idea borne out of quantum mechanics many years ago. They believe that cause and effect, or the perception of cause and effect, is affected by perspective.

*"If we could stand outside the world, we would be able to see the present affecting the past, as when an observer affects a photon's path through the universe (here Hawkins is referring to the double slit experiments). From inside the universe, though - from the only place we can*

*possibly be - no observer sees causality violated. What we observe in the present, the "final" state, is one entire, causally consistent history or another: from within any given history, cause and effect proceed in the usual manner.*"<sup>4</sup>

Using the analogy of a car travelling along the highway from point A to point B, what Hawkins is implying is that if he's standing at Point B and has no view of the road, the car will suddenly appear in his present and will then disappear into his past. However, he could, in theory, re-route the car to point C simply by the act of observing it at point A.

*When we dream, do we stand outside reality?*

Is Hawkins right to say "*from the only place we could possibly be*"? Could it perhaps be that, whilst we sleep, we do indeed "*stand outside the world*", that is, at point A in our analogy? Wouldn't this give us the power to create our very own quantum Universe? Using the analogy of the car; if our consciousness normally perceives the Universe from point B, then a view from point A would put point B into our "future". We may, therefore, predict that at some point the car will arrive in our conscious "present". From the perspective of point A, a reciprocal relationship becomes apparent, with events or perceptions at A affecting B (or C or D etc...) as already described. But a perception of B from point A may cause us to change the way in which we perceive events at A, "*the present affecting the past*", resulting in a different outcome. This is an interesting theory, not dissimilar to John Dunne's Serialism.

But can it really explain those instances of precognition that involve non-personal or random events like Aberfan and 9/11? I think it can. If the entire Universe is composed of fundamental particles that are responsive to being observed and, in addition, "talk to each other" as the Physicists claim, then it seems plausible that highly charged events cause

quantum ripples that are capable of being detected when one is “*standing outside the world* (of physical matter).” That is, in the context of this article, when we are dreaming.

Possible corroboration for this may come from the work of Professor Dick Bierman, a psychologist at the University of Amsterdam<sup>5</sup>. He has accumulated empirical evidence over many years that appear to show an anomaly that he terms *presentiment*; that is anticipating a random event before it happens. In response to this work, Professor Brian Josephson, a Nobel Prize-winning physicist from Cambridge University, is reported<sup>6</sup> to have said, “*So far, the evidence seems compelling. What seems to be happening is that information is coming from the future*”.

*What might the future hold for precognitive research?*

Explaining apparent precognition is not on the agenda of either mainstream psychology or neuroscience. We are told that human beings are just highly ordered biochemical machines whose cortex, awash with neurotransmitters, can somehow give rise to beliefs of a spiritual or mystical nature. If we refuse to accept that this is sufficient explanation for our experiences, we run the risk of being branded “New Age”. I for one find it an exciting prospect to think that one day Cosmologists and Physicists might come to our rescue and explain the strange phenomenon of dream precognition in terms that science can accept and understand. It has lain too long in the wastelands of scientific incredulity and been brushed aside by those branches of science that are less inclined to think outside the box of scientific respectability.

END

<sup>1</sup> Dunne John W (1927) *An Experiment With Time*. A & C Black Ltd.

<sup>2</sup> Marshall Jessica “Future recall: your mind can slip through time”. *New Scientist* No. 2596 p36-40 24 March 2007

<sup>3</sup> McNally, John P. Jr “Theory of Reciprocity” <http://www.theory-of-reciprocity.com> Accessed April 2007

<sup>4</sup> Geffer, Amanda “Exploring Stephen Hawking's Flexiverse” *New Scientist* No.2548 22 April 2006

<sup>5</sup> Bierman & Scholte (2002) “Anomalous Anticipatory Brain Activation Preceding Exposure of Emotional and Neutral Pictures”. University of Amsterdam.

<http://m0134.fmg.uva.nl/publications/2002/fmri.presentiment.pa2002.pdf> Accessed May2007

<sup>6</sup> The Daily Mail (UK) “Is this really proof that man can see into the future?” 4 May 2007