

1. As contained in *The Special Theory of Reality* 2005 (extracts in blue)

One of my initial, prime considerations was coming up with a solution that would explain double slit experiments in particular, but the idea that a rotating, many particle photon might do that soon found an unusual form of confirmation and the possibility of other very significant answers:

Pages 21-22:

How is it that light always seems to go at the same speed? Is there any clue how this might be explained in a way that does not defy logic and the laws of physics? It occurred to me that the significance of rotation to ideas of time might provide a clue. Light is a matter of frequency and so is rotation. Could it be that the various frequencies of light (and all EMR) are dependent upon rotation, which we have shown must vary with speed? This implies perhaps that photons rotate, which I understand is believed to be the case. There are, however, two points to consider. The first is that the frequencies involved are very high; could photons spin that fast, and how would the eye detect such rotation? The second point is that the wave-like properties have to be explained including the way that photons seem to split and re-combine.

The most likely answer to both these points seemed to be that photons way well be comprised of a large number of smaller particles. If these were spinning fast enough they would tend to return to the group and if spin were in the same direction they would bounce off each other. This idea was given greater credibility when I happened to see a Discovery Science programme about special effects. The particular item dealt with the computer animation of a flock of birds.

My attention was aroused when each representation of a bird was given a tendency to return to the flock but to keep within a minimum distance of other "birds". Interest turned to excitement as the animated "flock", when faced with an obstacle, split into two groups and then re-combined to form one "flock" after the obstacle. So if tiny spinning particles behaved in the way I had hypothesised, the ability of photons to split and re-combine could be explained.

My conclusion about the structure of light photons, as a spiral of tiny particles containing two transverse rings at right angles of the same tiny particles, as shown diagrammatically on page 32, was arrived at early in 2004, just a few weeks after the revelations early in October 2003 of the true meaning of relativity. Other than knowing what is contained in the first paragraph below, this was without knowledge of de Broglie (at initial formulation), and some months before reading about twisted light.

Pages 69-72:

Let us just consider one of my ideas, electro-magnetic radiation (EMR which includes light). You need to know first that light has been very hard to fathom. Newton thought that it came in corpuscles, but it also behaved very much like a wave (which needs some sort of medium in which to move). To this day the dual nature of light has been a mystery hard to understand. At the start of the last Century Max Planck showed that it must be emitted in discreet amounts or "Quanta" and Einstein explained the photo-electric effect by particles called photons, but the wave like properties were still not explained by anything other than a vague notion of duality.

In 1923 Prince Louis de Broglie, a graduate student at the Sorbonne, suggested that photons could have an accompanying wave which was related in some way to an internal cyclic process in the photon. Einstein liked this idea, saying "I believe de Broglie's hypothesis is the first feeble ray of light on the worst of our physics enigmas" and "de Broglie has lifted the great veil." Various people since have modified this idea but nobody has been able to explain the how and why of duality.

The whole point of a wave is that it is a travelling disturbance in a medium. Nobody has ever been able to show that such a medium exists. It was assumed for some time that an "Ether" must exist in space, but experiments to demonstrate this have all failed. So how do we explain this mystery, which has defied attempts to explain it for centuries, including the last century, when efforts have been particularly intense by some obviously very clever people?

My answer, which I think was revealed by God, is that particles move in such a way as to perfectly mimic a real wave, even though it can travel in a complete vacuum. A rotating ring of particles generate a helix when moving face on and a helix produces the same effects as a wave. If this rotating ring were the outer ring containing other internal transverse rings which together comprise photons, the idea of quanta is retained and

the arrangement ties in exactly with de Broglie's accompanying wave, which he called a pilot wave guiding the particle in its motion. He showed that, as the wavelength of light is decreased (frequency increased) the momentum of the individual photons is increased. As I have shown that mass increases with rotation my idea of frequency being related to rotation agrees with de Broglie's conclusions. (On page 52, Fig. 2.14, of "The Universe in a Nutshell" Stephen Hawking confirms the same relationship of mass increasing with frequency).

This explanation then provides a whole lot of answers. Light travels in straight lines (locally at least) because it consists of moving gyroscopes. Electro-magnetic field at right angles to motion is obviously produced by the particles in the outer ring. The retina is stimulated by particles in transverse inner rings cutting across it at various amounts of separation depending on the rate of rotation, so that colour (frequency) is perceived digitally. Polarisation is explained by transverse rings at right angles. Frequency dependent on rotation and speed suggests why the speed of light is always the same. Tiny spinning particles provide a possible explanation for photons splitting and re-combining (if I am right about orbit size). The spiral nature of gravitational waves I suggest would interact with the particles making up photons giving a real mechanism by which light is curved by gravitational fields; which would also explain red shift of light emerging from dense gravitational fields.

This is an impressive list of answers for one idea; and I have not yet mentioned that it provides the first ever description of a mechanism by which radiation is actually released, in suggesting that very high, contained rotational energy, when released reduces frequency and mass, permitting phenomenal acceleration. This mechanism contradicts one aspect of Special Relativity but agrees precisely with the nature of the mass/energy relationship as outlined in "Basic Relativity".

My theory also anticipates that photons and electrons are based on the same form of construction, which explains why they behave in a similar fashion. It is also entirely consistent with the view that electrons near the nucleus with higher energy are the source of higher energy emissions. As far as I am aware, with my limited knowledge of quantum physics, all of the above result in no significant conflict.

Also, very recently ideas have been suggested by others, or ideas have been "resurrected", which also suggest that the property of helicity can apply to photons. In New Scientist of 12th June 2004, in an article entitled "Twisted Light" on page 40, the author refers to the work of Les Allen in 1992 at the University of St. Andrews (UK), in showing that twisted light (which is not what I am saying exactly) carries angular momentum.

For singly twisted light, it works out at one quantum unit of angular momentum per photon, so Allen suggested that this "orbital angular momentum" is a property of the individual photons, which is exactly what I am saying about the outer ring. The Author then goes on to say that in 2001, Alois Mair, now at Harvard University, working with Anton Zeilinger's group at the University of Vienna was able to "prove" this (I prefer "verify"). The group created entangled pairs of twisted photons and showed that the twist resides in each photon (*Nature*, vol 412, p313).

A twisted photon apparently appears to travel along a helical path, subject to the fact that its position at any point can only be inferred as a matter of probability in quantum mechanics, giving a spread-out quantum wave function, which the author says is exactly the same as the corkscrew of classical twisted light.

There is then Roger Penrose's Twister theory, recently resurrected in serious consideration being given by some String theorists, as mentioned in his recent monumental work "The Road to Reality". I was greatly encouraged to find that this great mathematician and physicist has concluded, just like me, that he is not comfortable with the idea of extra dimensions. His article in New Scientist "Strings with a Twist", 31 July 2004, p26, mentions that twister theory does not require more than 4 dimensions, which I have explained is in no way mysterious but is the natural consequence of motion. This is not a property of empty space but the simple, logical way to consider the motion of matter in space. Unfortunately many theorists seem to have this wrong!

My encouragement was slightly deflated by finding that, just like everybody else these days it seems, Roger Penrose is not able to give an account of the way that he sees things to work in a way that can be clearly visualised. His theory does seem to involve light having helicity, but what the precise mechanism is to explain this is not clear to me. Perhaps it is more clear to those who are able to understand the highly complex maths on which it all seems to depend, but then why not include an attempt a conveying what is actually visualised if it is possible, so that it will be apparent to those whose maths is not on the same level. But then I think that being able to visualise gradually "disappeared" in the last century as quantum theory itself manifest as an on-going mystery.

Following further study of particle physics textbooks, I was able to refine a model of particle structure based

on rings (Fig. 2 page 26 and Fig. 5 page33), in which I visualised the gluon as a linking ring, the breaking of which appeared the likely source of the electron and anti-neutrino in the conversion of a neutron to a proton. So it appeared possible that the particles in the gluon ring, that were needed to form an electron, were all anti-neutrinos with one to spare. Further reading about neutrinos confirmed them as possible candidates for my tiny particles that comprise everything as follows:

Page 80:

Page 162 of “Nuclear and Particle Physics” by Burcham and Jobes states the following:-

“... it will be necessary to ascribe a new property of *helicity* to the neutrinos. This is a correlation between the spin direction of a particle with its linear momentum which makes it move like a screw.”

At first I thought that this confirmed my conclusion that such elementary tiny particles move naturally in spirals, but later, further reading clarified that helicity in this sense is simply the particle having a natural tendency to move along the axis of its spin, which is simply in the opposite direction in neutrinos and anti-neutrinos. Nevertheless, I was encouraged because it would explain spirals if I was right in my interpretation of relativity, that spinning particles also have a natural tendency to follow a curved path in the plane of spin, if starting with, or given, momentum in that direction.

This brings me on to my second paper, which contains experimental evidence, unfortunately deliberately ignored by mainstream science, because it explains the reason why neutrinos move as they do (which they admit they do not understand), verifies the link between mass and spin, and strongly suggests the exchangeability of angular and linear momentum, on which my theory of radiation release depends.

2. Experimental evidence mentioned in my second paper

My theory of light postulated a mechanism of radiation release in which rings or groups of rings could be contained by transverse rings, thus allowing the release of the higher energy contained rings if the containing ring moved round to the same axis of spin. This depended on the polarity of mass dependent on my deduction (helped by Divine revelation) that mass depends on spin (simple rotation).

The experiments of the late Professor Eric Laithwaite with gyros, the late Bruce DePalma with gyros and spinning balls, and unnamed others with spinning balls mentioned by DePalma, demonstrated that, exactly as I had theorised, mass is generated in the plane of spin but reduced along the axis of spin. Laithwaite's suspended gyro that proceeded to orbit of its own volition, and changed orbit from large to small and (remarkably) back to large orbit again, can only be explained in my view if spin energy can be transformed into translational energy and vice versa (plus the implication that if mass is spin, then a spinning body will tend to stay put in relation to everything else in a rotating system (such as the Earth), and thus have curved motion as standard, relative to that system).

Thus my theory that the loss of mass (spin energy) to permit translation of the inner rings when outer rings change alignment is supported by these experiments.

And then, of course, we have a clear explanation for quanta.

3. Evidence mentioned in Chapter 17 of my Autobiography

I had concluded within a few weeks of the revelations in October 2003 that light and other radiations (based on spirals of large numbers of tiny particles with slight variations of spin and thus orbit) could encode very large amounts of information. When I read in the Christmas 2003 that blobs of plasma gas had been observed to apparently “communicate, replicate and grow”, I immediately suggested that this would be via the exchange of spirals.

This is what I was able to add to my autobiography in 2007:

“I had been invited to subscribe to a new, on-line magazine called World Science. One of the first articles was about computer simulation of plasma. Readers may remember that I said in Chapter 12, p. 134: “I had read in New Scientist that it had been discovered that blobs of plasma gas appear to be able to “communicate, replicate and grow”. Of course they can! It is clearly possible by the interchange of encoded helices.”

Guess what the computer simulation showed? Right, exactly what I had suggested almost four years ago. There were helical structures that not only seemed to be communicating information, they were interacting in the way I had suggested to explain forces.” (Pages 55-56 of chapter 17 on my website)

But the most dramatic confirmation had been mentioned on pages 52-53 as follows:

“If you have seen the excellent science fiction film, K-PAX you will know that the human looking alien character, Prot, claimed to have travelled in a beam of light, and said, “You would be surprised just how much energy there is in a beam of light.” Suspecting that this may have been something very insightful on the part of the author, I emailed Gene Brewer (on 2/2/06), saying just how insightful this was, and that my theory suggested that, “much more information can be encoded in light and similar unknown emissions than even twisted light suggests.”

What the experiments demonstrated was that frog DNA could be changed to salamander DNA simply by passing modulated laser light through the latter and on to the former. Those who know just how much information is involved should be even more staggered than I was. And yet I was not surprised, because Wilcock also said that the light itself took on a spiral form (phantom DNA), which I knew from other experiments I had cited in support of my own theory of light was the same as the “twisted light” I had mentioned to Gene Brewer. Twisted light, where the photon itself follows a spiral path, had been shown to depend on orbital angular momentum within the photon, which is a scientific way of confirming that something within the photon moves in a spiral, as I had said.”