Science today is a wonderland of strange and exotic particles and substances. Dark matter and energy, Higgs bosons and black holes – the menagerie is bewildering, and sometimes reminiscent of a fantasy novel. Whether or not these peculiar creations of the mind do have any basis in material fact, there is one branch of physics that for a century has been posing conundrums which seem to go to the very heart of the relation between matter and consciousness, namely, quantum physics.

From the standpoint of what we might call a "New Age" approach to the latest revelations of science, perhaps the most commonly cited characteristic of quantum physics is the apparent interconnection between the observer and his observations. As with other aspects of quantum physics, it can be a challenge to interpret the true meaning of this. There is the ever-present danger of the psychological tendency known as "confirmation bias". This is the tendency to favour information that confirms your own beliefs or hypotheses. People display this bias when they gather or remember information selectively, or when they interpret it in a biased way. The effect is stronger for emotionally charged issues and for deeply entrenched beliefs. For example, in reading about current political issues, people usually prefer sources that affirm their existing attitudes. They also tend to interpret ambiguous evidence as supporting their existing position. It is certainly worth remembering that all of us are subject to this tendency to one degree or another. It could be regarded as one of the aspects of illusion.

Bearing this in mind, let's take a little time to consider one of the less discussed aspects of quantum physics, namely, quantum indeterminacy. This has implications for our understanding of human free will.

Quantum indeterminacy is the phenomenon which caused Einstein, in rebellion at the notion, to assert that God does not play dice. It is the idea that, for any quantum system, say, an electron, the sum total of its measurable properties - e.g. its electric charge, its momentum, its direction of movement etc. adds up to its physical state, but this state is not determinate - in other words, it can't be reduced to a single number. Instead of a single number, there is a probability distribution which expresses the likelihood of specific results if any of the electron's properties are measured. Putting it simply, rather than saying the electron's speed is x and its position is y, all that can be said is that if the electron's speed is x, then there is a certain percentage chance that its position is y, and another percentage chance that it is z. And curiously, the more accurately we measure the speed, the less certain we can be about the position. This fact is quite independent of how accurate our measuring equipment is.

This uncertainty spells the end for the vision of a "billiard ball universe" – one where all the actions and reactions can be calculated and predicted in advance by some all-powerful observer. In effect, it opens a door for the operation of that mysterious factor, chance, luck or fortune, names which attempt to capture the fact that any model we make of the universe always leaves something out, some further factor beyond the range of our current grasp. Who knows just how far up the scale this reaches? Perhaps chance is built in to the universe at every level of being, in order to prevent any danger of repetition? The Romans included the goddess Fortuna in their pantheon. Her father was said to be Jupiter, and, like him, she could be bountiful. Fortuna's identity as the personification of chance events was closely tied to *virtus* (strength of character). Public officials who lacked virtues invited ill-fortune on themselves and Rome. The most famous symbol associated with her is the Wheel of Fortune, which depicts the way in which fortune changes seemingly at random, as Fortuna spins her wheel. The symbol continued to be used into the Christian era, appearing in manuscripts and even in cathedral windows. The theme of sudden reversals of fortune is a ceaseless source of interest in literature, with Charles Dickens being one of its master exponents. And people have been fascinated by games of chance since time immemorial.

For esotericists, it is no great stretch to suggest that the physical world is actually influenced by factors beyond the reach of physical measurement, although they might have some other ideas for what to call these factors, instead of "fortune". One obvious starting place is "karma", which might be regarded as the esoteric analogue of the simple deterministic model of cause and effect in classical physics. When the individual begins on the path of discipleship, he is usually quite focused on the working out of his individual karma. As

consciousness expands, an inkling begins to emerge of the disciple's responsibility to actively bear (rather than unconsciously submit to) wider fields of karma – the karma of the family, of the group, of the nation, and on upwards to the karma of humanity itself. Before discipleship, the impacts of these different karmas would be borne as the blows of fate and the workings of chance. Now, the disciple can actively work with the forces which are presented to him, transmuting them and releasing the individual self, and then the selves of others, from their bonds.

Of course, in order to do this, the disciple must freely choose to do so. Free will enters the picture. This is another area where indeterminism comes in, for if the universe were fully determined, there would be no space for the operation of free will – all that would be present would be the illusion, as every particle and composite body followed its pre-determined course from the beginning to the end of existence. A chilling picture, and one which, fortunately, we don't have to accept. A number of thinkers have proposed that quantum indeterminism is in fact the source from which free will originates. As esotericists, we might be more inclined to say that quantum indeterminism is a veil which conceals the operation of non-physical forces and energies. In that sense, scientists have already moved beyond the physical, but are not yet ready to admit it to themselves. It is therefore not surprising that the whole area of quantum mechanics throws up so many conflicting philosophical interpretations. The scientists and philosophers are all busy using the tools of materialism to try and paint a picture of something immaterial, so a muddle is inevitable.

Using this non-material free will, the disciple applies its energy to the fuel of karma, the material relations that have been built up over many incarnations, and can unravel them, freeing the indwelling life. Free will begets further freedom. This is a fact which the less free countries of the world are beginning to learn, for the first step towards a truly free will is the intense individualism which characterises more and more people as we transition from Pisces to Aquarius. This intense individualism can be linked to a lower manifestation of the energies of Leo, the polar opposite of Aquarius. As a person becomes more and more definite in his tastes and ideas, and thus separates himself from mass consciousness, then any obstacle to the free expression of those tastes and ideas becomes more and more irritating. A lack of political and economic freedom could be regarded as the chief such obstacle, which means that those who would restrain the freedom of their fellow human beings in the name of either their own selfish interests or an abstract theory can expect to face a slowly mounting tide of opposition. We have already seen this playing out in Eastern Europe, and another series of revolutions now appear to be under way in the Middle East, a series which has other influences complicating its outcomes. Meanwhile, the leaders of a number of countries in the Far East, including, most obviously, China, look on nervously, and wonder how to manage the transition from the age of the masses to the age of the individuals, without major upheavals. At the same time, those who recognise the signs of spiritual evolution are pondering how all these newly minted individuals can be shown the further step of evolution into the true Aquarian group consciousness.

What makes this picture even more complicated is that, along with the social, economic and cultural influences which are propelling events, and are all that *appear* to determine them – which we could liken to the observable forces operating on the electron – there are also the unacknowledged subtler influences. When we begin to enumerate these, it becomes apparent just how astonishingly complex the situation is. So even though the Great Lives who seek to benefit Humanity have a breadth and depth of vision which far surpass ours, it is not really surprising to learn from the Tibetan that, "not even the Christ Himself can predict exactly the time limit within which changes can eventuate, nor the reaction of humanity to any given point of revelation." (EP II p.143) Similarly, when discussing the unexpected results of the impact of the direct Shamballa impact on humanity, the Tibetan remarks, "...the Masters know not which way mankind will go, nor may They interfere by action or thinking in humanity's decision." (7V p.411)

Before we have a look at some of the many subtler influences which operate on the human psyche, let's pause briefly, and then say together the Affirmation of the Disciple:

I am a point of light within a greater Light.

I am a strand of loving energy within the stream of love divine.

I am a point of sacrificial Fire, focussed within the fiery Will of God.

And thus I stand.

I am a way by which men may achieve.
I am a source of strength, enabling them to stand.
I am a beam of light, shining upon their way.
And thus I stand.

And standing thus revolve
And tread this way the ways of men,
And know the ways of God.
And thus I stand.
OM

We have of course already alluded to two of the major subtle influences on human consciousness, namely, the astrological ones of Pisces and Aquarius, which, in this case, are operating over Ages or Eras of around 2000 years. Because they are in effect for such a long span of time, their impact is measurable not at the level of the individual, but of humanity itself. These are energies which condition the development of civilisations, broadly shaping their ways of thought and institutions. The Piscean era has roughly coincided with the rise of Christianity in the West, its gradual crystallisation and now, it would seem, its decline. We are all relatively familiar with the general tenor of the Piscean Age, simply because we are its mature fruit. What is less familiar are the epochal implications of the oncoming energies of Aquarius. These energies are going to produce a new civilisation – new institutions and new types of culture for which we currently do not have any names. What, for example, will take the place of organised religion? For something surely must – and yet it will not be able to be organised along the same lines, for the Piscean idea of priestly authority is now more or less shattered. The activity we are engaging in today is supposed to be one of the seeds for what the Tibetan calls "the new world religion" - but the very term "religion" seems almost irrevocably Piscean, and one can't help but wonder if we should really be thinking about the new world – what? Either the term doesn't yet exist, or, at least, it hasn't yet become sufficiently magnetic to bring that sense of immediate assent which "religion" previously could. The same might even be true of "God". A brief check of the CD-ROM of the 24 Books confirms that "god" is used over 2,600 times. Yet the picture regarding what this term signifies, which is only faintly hinted at in the Bailey corpus (as it can only ever be hinted at), has very little in common with what is written in most of the traditional scriptures of the world. If we project forward to the end of the Aquarian era, we might imagine that the majority of those who affirm a faith will be thinking of "God" in the broad terms presented in the Ageless Wisdom, however they have reached this point. What sorts of activity will they engage in to express this belief? And bear in mind, they will also have been witness to the new revelation which the Christ will bring as the Aquarian avatar.

Shifting the focus back to the here and now, every year, Aquarius brings its own influences to bear through its three ruling planets, Uranus, Jupiter and the Moon. However, apparently the Moon veils Uranus, so there is a double Uranian impact. Assessing the actual effect of these three influences becomes increasingly hard as we move from the exoteric rulership, largely affecting the forms into which consciousness pours itself; to the esoteric rulership, which has a more direct impact on the quality of consciousness; to the hierarchical rulership, which seems to be focused on the life energy. Thus, while we may be justified in associating the exoteric side of Uranus with the growing manifestation of various forms of electronic communication, what can we make of the indication that as a hierarchical ruler, Uranus, via the Moon, stimulates the seventh creative hierarchy of elemental lives? We know so little as yet about the energy of life, and how it manifests through the various hierarchies, evolutions and kingdoms, that it is probably wiser to leave this influence aside, another aspect of uncertainty which may become a little clearer as the ages pass. As the esoteric ruler, Jupiter is said to bring in the tendency to fusion, including the fusion of heart and mind, which is described as "the subjective purpose of manifestation" (Es. Astro. p.139). Let's just ponder the vast import of that idea for a moment – the fusion of heart and mind is the subjective purpose of manifestation. How well do we understand the key terms, "fusion", "heart", "mind", "subjective", "purpose", "manifestation"? And even given a relatively good understanding of the individual terms, how well do we understand this particular combination of them? As we move up the ladder of consciousness, new and deeper meanings for such significant phrases will no doubt reveal themselves, and events that we took for the operation of chance may begin to take on a new interpretation.

As well as the annual astrological influences, we should also bear in mind the various ray cycles. The ray cycles which receive the most attention in the Bailey books are those of the sixth and seventh rays, as there is a significant transition now taking place between them, and a whole section of *Destiny of the Nations* is devoted to discussing this. However, we should not forget that other rays are also impacting humanity. For example, the fifth ray was in effect from around 1880, and was withdrawn around 2000; and the fourth ray is due to come in around 2025. To give us another two phrases to ponder on, the Tibetan remarks that the fourth ray is, "the ray which teaches the art of living in order to produce a synthesis of beauty" and is, "the energy which brings about the beauty of those living forms which embody the ideas and the ideals which are seeking immediate expression". (*Destiny*, p.143) It is also said that humanity is under the influence of the fourth and fifth rays, so these two cycles will presumably be particularly potent.

With all of these influences, and others which may be too subtle for us to understand, acting in combination to impact human consciousness, it is perhaps no wonder that when extraordinary events like the fall of the Berlin Wall or the Arab Spring take place, historians and other thinkers are left scratching their heads and suggesting that chance plays a role in human affairs. Widening and deepening the scope of our vision can help us to lift the veil just a little, while recognising that there will always be further to go. Our seed thought for meditation is , "Water of life am I, poured forth for thirsty men."