

HUMAN FREE WILL

James A. Putnam

© 2005-2007

Human free will is a property of the universe. However, the universe, from a theoretical physics point of view, evolved from simple mechanical properties to complex mechanical properties. I mean simple in the sense of individual isolated particles of matter. Complex properties result from assemblages of particles. Atoms are more complex than are individual particles. Molecules are more complex than atoms. Life is more complex than all else. In the theoretical physics sense, mechanical forces of attraction and repulsion worked together to cause diverse dumb particles to arrange themselves into complex assemblages with increased mechanical complexity. Yet, in contradiction to this mechanical viewpoint, empirical evidence makes clear the universe was directed toward life and intelligence. The thrust of this essay is: From the beginning, the goal of the universe was the realization of human life and intelligence culminating in human free will.

Theoretical physicists generally analyze the universe in a manner consistent with the presumption: There was one unexplainable miracle. That miracle was the origin of the universe. Physics treats everything after the beginning as if its evolution was caused by and is derivable from properties in existence at its origin. Its origin is unknown and remains a miracle for all observers including those who resist admitting it. We cannot scientifically comprehend a cause for the origin of everything. We cannot scientifically analyze the origin of everything. No equations can ever reveal the original cause. All equations are formed from something. Zero null points occurring in mathematical models are not representative of a universal beginning state. None begin with *nothing* as their premise.

Even so, there are efforts by theoretical physicists to model an origin of the universe. However, their work consists of mathematically based speculation. The equations are studied on the premise they may reveal hidden truths about the origin of the universe. Unfortunately for these efforts, this is not possible. Beyond viewing the empirical evidence, the theorist relies always upon their imagination. The equations can give back only those ideas the theorist initially put into them. It is the physicists' imaginings that are revealed in their theories.

The bases of these imaginings are empirically observed patterns of motion. The effects that physicists analyze are always changes of velocity. There are two parts to this analysis. One is to discern the unique patterns in changes of velocity. There is truth in empirical knowledge about patterns of motion. This is experimental physics. However, that is as far as truth can be verified. The other is to speculate about causes for the patterns. This is theoretical physics. It consists of inventing natures for unknowable causes.

In order to proceed in the face of the unknown, physicists imagine they are identifying causes. Physicists communicate, using theory, as if some causes have been made known. Despite the

apparent success of theoretical physics, we do not know the nature of cause. Knowledge of patterns in empirical data is very useful, but theory's usefulness is limited to helping us keep our imaginations orderly. Keeping the fruits of imagination orderly is not the same as proving our imaginings are true.

The standard analysis of patterns of motion has been guided by a philosophy of mechanistic evolutionism. Various interpretations of the universe are adopted based upon mechanical, no inkling of intelligence, causes. These interpretations are fitted to the patterns observed in empirical evidence of motion. That is what qualifies them as being scientific. Contrary to common belief, the interpretations are not dictated by empirical evidence. They are educated guesses. Physical natures are imagined to exist. Names and units of measurement are assigned. Nevertheless, these are all imaginings about the nature of cause.

Physicists imitate, by means of mathematical equations, the patterns observed in the movement of objects. They attach their theoretical guesses about the nature of cause onto terms in the equations. For example, some terms are given the names of force, mass and electric charge. No one knows the natures of force, mass or electric charge; but, the manner in which they are presented usually makes it appear that they are proven. There is no proven scientific understanding about the means by which the universe operates.

This lack of fundamental understanding does not prevent the advance of theoretical analysis. Theorists are unhampered by their lack of knowledge. They press forward in their pursuit of substituting theory for the unknown. *The unreal obscures the unknown*. This fatal flaw does not prevent theory from making a convincing case in favor of itself. The empirical evidence is orderly and much of this orderliness is carried over into the theories.

It is required that the universe be orderly for it to be comprehensible to us. It is required by virtue of the existence of order that all effects ultimately result from original properties. Physicists know that the original properties caused life and intelligence. Yet the controlling theories are only mechanistic. Physics is the study of motion and the prediction of future and past motion. The past general history of motion is analyzed backward very close to the origin of the universe. The quest is to determine the origin of order within the confines of mechanistic evolutionism. In other words, the search for the source of universal orderliness is artificially confined to the simplest lowest level of understanding.

The most important effects of the evolution of the universe are life and intelligence. Their analysis also relies upon the discernment of order. The ability to discern order is an intellectual property provided to us by the universe. The orderly operation of the human mind leads to understanding of the rest of the universe. Orderliness requires continuity of control. Control must be continuous or order will be lost. All orderliness existed potentially at the birth of universal orderliness. It is required that the full potential of life and intelligence must have existed from the beginning of the universe. Their full means for development had to have existed from the beginning. We cannot understand the development of life and intelligence unless we recognize that the universe has non-mechanical properties. These properties cause matter to develop into complex relationships that lead to macroscopic signs of life.

We can endeavor to learn the development of life and intelligence by freeing our minds from the artificial restrictions theoretical physicists have introduced into scientific learning. Our thinking has long been shackled by the ascent of mechanical theory. We will not progress beyond mechanical modeling of the universe so long as physicists insist that the fundamental properties of the universe are mechanical. The cause of life and intelligence is definitely not mechanical.

This is evidenced on every level by the inability of mechanics to predict or explain life and intelligence.

Particles of matter participate in generating complex life and intelligence. They do this while changing their velocities. These changes of velocity are far more complex in their effects than mechanical theories allow. In other words, changes of velocity involve far more mysterious and wondrous causes and effects than are recognized by physics mechanics. We can't begin with mechanical properties and work our way up to life and intelligence. The development of life and intelligence should be investigated by tracing them backward through their evolutionary process.

This effort must no longer be derailed by mechanical ideas such as electromagnetic theory. The real natural properties are not yet analyzed. Physicists do not acknowledge they exist. The fundamental properties of life and intelligence have been obscured from our vision by the facade of imaginary theoretical mechanical forces. We need to look beyond this facade to analyze life and intelligence. We should expand our search and look anew, advancing down to the fundamental level. That is where everything begins. That is where life and intelligence begin. However, we can initiate our investigation by starting with life and intelligence at their highest level.

We should start where intelligence is most clearly revealed. That is where our search for the origin of life and intelligence can begin. We can focus this initial effort by analyzing the greatest effect accomplished by intelligent life. Human free will is the greatest effect of the original cause of life, intelligence and the rest of the universe. Just as patterns of motion are expected to be traceable into the past, human free will must also be traceable. It must be the case that human free will is the result of the earliest fundamental properties. The true natural properties belong as much to complex life and intelligence as they do to simple motion. Tracing the evolutionary path of human free will involves the union of macroscopically recognized intelligent traits with the true natural properties of the universe.

There are generalities about the nature of the universe that are useful for an introductory understanding of human free will. The primary generality is that the universe is orderly. In other words, it is controlled. The appearance of order demonstrates that order always existed. Even if some of the order of the universe goes unrecognized by our standards, it certainly exists by the universe's standards. The fundamental properties must be orderly because the macroscopic properties are orderly. Disorder cannot create order. Full understanding may always be beyond our ability. We may not be able to comprehend the operation of the universe in detail, but we can know for certain that order always existed simply because it exists now.

The realized forms of this order, its physical effects, do change; however, they always had a constant presence in another form. This completeness consists of combined potential complexity and realized complexity. In other words, order of any kind always follows from order of another kind. The universe is always under control. It is controlled, and yet is so diverse that at times it can appear chaotic. At the fundamental level, physicists resort to terms of description such as *weirdness* and *fuzziness*. They analyze much of it by approximation techniques such as probability analysis. This is an outsider's point of view.

Our macroscopic perspective gives us a limited perspective. As we look closer and closer to the basics of existence we lose our way. We cannot find the unity that must be there. The activity begins to look more and more like chaos. We observe that, from this apparent chaos and disorder, order arises. The fact that order exists at all is proof that order exists at every point in space and time during the whole existence of the universe. The point is that while it can appear

to us that order arises out of disorder, it is not truly possible for order to arise from chaos and disorder. True disorder has never been a part of the operation of the universe. Rather, lack of comprehension is involved in our analysis.

The universe does evolve, but not because simplicity can generate complexity. Within the universe, complexity comes only from equivalent or greater complexity. The greatest possible effects of complexity in the universe exist right from the start in a potential state. The nature of the universe has never been simple. It evolves from one mix of complexity, both realized and potential, to another. The successive forms of evolution of complexity are different in their realized effects. Yet, they are the same in terms of combined remaining potential and existing realized complexity. The full capacity to bring forth all forms of realized complexity for all time is constantly present. In other words, the evolution of the universe follows from its original fundamental properties.

Full intelligence existed at the beginning of the universe as potential complexity and evolved toward realized individual complexity. The evolutionary progression toward realized complexity coexisted with potential complexity. Realized complexity increases while potential complexity decreases. Evolution is a process that moves from potential complexity to realized complexity. Dispersed particles fill much of the universe coexisting with complex structures such as galaxies, planets and life. Human life, the greatest example of realized complexity, exists within a universe of much unrealized complexity.

The life producing action of the universe advanced from potential generalized complexity to realized individual complexity. We witness this process. We witness the organization of matter taken from the earth and formed into living things. We see, in reverse, that same matter become dispersed again returning back to the earth. The orderliness by which life is formed is not then lost. It is possible for that same matter to be raised up again and once again become recognized life. We see that this process is orderly. Everywhere we look we find orderliness.

Even probability analysis relies upon orderliness. We observe the orderliness and use it to analyze the universe. We mimic motion activity with physics theory. Physics theory is useful for mechanical purposes. The more useful it becomes, the more correct we believe it to be. Physics theory borrows its usefulness from the natural orderliness of the universe. The fundamental properties that constitute life and intelligence also exist in their disassociated generalized form. Their effects, at this level of development, are so unlike our human concept of evidence of life and intelligence that we fail to discern their existence.

We don't seem to be able to begin from the bottom up, but we can try beginning from the top down. We can try to trace the properties of intelligence by looking backward from its result. Human free will is the ultimate result of the fundamental properties of intelligence. The physical origin of the universe contained the fundamental properties of intelligence. They are orderly. In other words, they are deterministic. How then is human free will the supreme result?

How does individual freedom of thought emerge from universal control? It occurs because the orderliness of the universe is not communicated to us fully intact. We are released intellectually from the control of universal determinism. This results from the method by which we view the universe. We do not see the universe in its continuous form. We see it as discontinuous and incomplete. This results from our receiving discontinuous and curtailed information via photons. We use our incomplete genetic intelligence to interpret the incomplete information. In a sense, we must generate complete, smooth thoughts from piecemeal data.

The anticipation of change is what allows us to connect together independent pieces of information. Our minds search for ways to connect discrete pieces of information together. We imagine what change may be occurring based upon our genetic knowledge of change possible. The data is always about change. Even though received information is always about change, our thoughts are not only about change. Our thoughts include both change and *no change*.

We experience change, but we invent *no change*. We do this because *no change* exists as a genetically programmed idea. It is an intellectual given. Ideas are what we are genetically given as the tools to be used for understanding information. *No change* is an essential idea to human thought. This idea is not based upon anything ever experienced at anytime or any place in the universe. No living thing has ever observed *no change*. However, we are intelligently predisposed to understand the concept of *no change*.

Our view of the universe is an interpretation of an approximation. We picture the universe differently from its physical nature. Our view is a mix of approximation and interpretation. We are genetically programmed to know the universe in a useful, intelligent manner. We subconsciously contain an intelligent, specialized understanding of the nature of the universe. Here I use the word intelligent to distinguish human perception from the mechanical perspective presented by physicists and endorsed by scientists in general.

Our conclusions can be shallow or deep depending upon the effort we put into forming them. The more facts we have the more likely our conclusion will be deeply supported. The more we think something over, the more deeply our mind will search for a better conclusion. This inexact method of matching ideas to information is an important part of creating human free will.

Scientists seek to learn how the universe differs from our human perception. They find that the universe is very different from how we perceive it. When scientists describe what they have learned, they believe they are removing interpretation and replacing it with objectivity. This is only partially true, because scientists also rely heavily upon interpretation. We cannot escape from the need for interpretation. We often experience difficulty in separating out invented interpretations from intrinsic, genetically based, interpretations. So long as scientists do not recognize the existence of genetically based interpretations, they will offer many invented interpretations.

The information we receive is anticipated by our intrinsic intelligence. Everything we will learn is already within us in the form of probable and possible meanings. However, our individual interpretive abilities are made flexible. There is inexactness and incompleteness both in the meanings we contain and the information we receive. The mix of these for each of us is unique. The discontinuity of received information is the extrinsic part of free will. Our store of genetically generated meanings is the intrinsic part of free will. The combination of these two properties forms the basis of free will. In both cases they are uniquely incomplete. None of us has the same store of knowledge or receives the same information. It is possible that the meanings we choose may be right or wrong, and will often be different for each of us. This is why I say: It is the rationing of knowledge that gives rise to free will.

The universe is continuous in its nature. This follows from the fact that it is controlled. Control requires absolute continuity. However, our share of intelligence overlays an interpretation based on discontinuity. We see the universe as being discontinuous. We do not view the properties of the universe in their full forms. The missing information helps facilitate choice about the meaning of the information we use. The possible meanings often include approximate choices that lend themselves to a variety of interpretations.

Intelligent discontinuity is inserted between the universe and us, making our choices flexible. This flexibility of choice is the essence of free will. Our inexact individual choices produce conflicts in perception among individuals. This makes alternative and even opposing interpretations appear reasonable to different people. The result is that reasonable people can honestly disagree. There are also environmental and cultural components to choice; however, it is the fundamental discontinuity and incompleteness of the interpretive process that lays the foundation for free will.

Human intelligence is the single greatest effect in the universe. However, this effect is not realized in a single form. The triumph of human free will is represented by the totality of human life. Our macroscopic understanding of intelligence is represented by the totality of all life forms. It is realized in their collective abilities. We are each different from all others. Our individual intelligences are unique by virtue of what they lack. Each of our portions of intelligence is uniquely limited. Universal Intelligence uses inexactness and incompleteness to help make human free will possible.

It is in this partial state of simulated intellectual disorder that free will begins. Then intelligence artificially removes the induced disorder by adding an artificial form of continuity back onto the information received from the universe. So, it is intelligently made possible for order to arise from disorder. This is only possible because the disorder was overseen by an orderly universal intelligence. The two-step process of intelligently creating discontinuity and then inserting a new continuity is the means for the realization of free will. Since the apparent disorder is always under control, it is more accurately described as planned disassociation. Free will arises not from true disorder but from intelligently designed disassociation.

In other words, the information of the universe is first cut to pieces by our intelligence. Then, we select some of the pieces and join them together, forming approximations of interpretations of reality. Some information is lost or even misinterpreted. We take what we think we have and smooth it back together to form a new kind of continuity. For example, we see limits on the structure of individual objects. Usually this technique yields an interpretation that is better in the sense of usefulness for life. Sometimes it is misleading. At other times it is clearly wrong. In each case the interpretation is often presented to our conscious mind as a certainty.

Our sense of constancy or permanence is imposed upon our limited perspective of the universe. There are two general components to intelligence: The pre-existence of all required understanding and the information generated by the operation of the universe. The information has an important common foundation. The information delivered to us by the universe is always information about change. That is because it is delivered via photons. Everything in the universe is continuously experiencing change. Photons are the messengers of accelerating matter. Matter only communicates with us when it is changing its velocity. We do not directly experience permanence.

Energetic photons are caused by change and end by causing change. Change is the ingredient that is constantly present in the universe. The universe exists because of change. Change guarantees that no two experiences will be identical. We live because of change. From the limited perspective of physicists, change is viewed as the variation of motion. However, there is a fullness to change that communicates far more than just change of velocity. It is the impetus for activating intelligence. Our intelligence is fueled by change.

It is through change that we are made aware. It is through change that we learn. We act through change. It is through change that we express our will. Even with all the change constantly

occurring in the universe, there is also stability. The properties that cause change are stable. They are the orderly properties of the universe. Their orderliness is what makes change useful. Change makes sense to us because it is the result of orderliness. We require both change and order. We rely upon change for existence, but we seek order for meaningfulness and understanding. We need both change and stability. There is a natural stability in the laws of the operation of the universe. The natural stability of the universe is in its orderliness.

There is also an induced stability. The inducement of stability is due to commonness of culture and environment. We establish society to introduce stability into life. There is a tendency to bring a significant degree of constancy and sameness into our experiences. Sharing a common environment and culture gives us stability. Our cultures and environments tend to establish norms and habits for us. While nothing is experienced exactly the same by each of us, there is often a high degree of similarity that closely approximates sameness. In many ways we become culturally programmed to perform in predictable manners.

However, we are not fully predictable. We have different experiences. We are capable of breaking with the past. We are born with the means to do this. Our individual experiences activate different parts of our intrinsic intelligence. We escape cultural and environmental conditioning by contemplating two things. We contemplate the comparison of external impression with individual, unique, internal guidance. Learned behavior is repeatedly tested against internally generated choice. Also, we escape by drawing upon our internal, genetically transmitted reserve of yet untapped knowledge. This can sometimes be a struggle of such magnitude that it may lie dormant unless we vigorously pursue it. Those who succeed in doing this demonstrate the existence of free will. Those who do not make the effort can foster doubt.

If the future was really the product of a simpler mechanical past, then the universe would consist of dumb objects, some simple and some complex, bumping around with not even a hint of awareness. There would be no life. There would be no intelligence. There would be no such thing as free will. We know free will exists. We know this because we can choose not to be chained to the past. We know this because we willfully rush forward into new levels of understanding that repeatedly break with the past. Not all pieces need to be in place and yet we can suddenly become aware of how to solve each puzzle. We cause ourselves to become aware of the existence of missing pieces that were not yet known. We *will* complete knowledge into existence. We freely do this.

Our universe is not properly represented by the mechanical model that physics theory offers to us. This universe that gave birth to us is a universe with the inherent ability to generate recognizable intelligent properties. It can do this only if it is first in possession of its own intelligent properties. It is probably the case that all apparent properties are different aspects of a universal intelligence, and there are no fundamental mechanical properties. We live in a universe that has the talent to generate free will from determinism. The universe may not have free will, but it has the means to give us an ability that very closely approximates it. That is a supremely intelligent accomplishment.