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Do We Have Free Will?

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Abstract and Keywords

This article takes an experimental approach to the question of whether we have free will, with special reference to the role consciousness plays in free voluntary action. It shows that voluntary acts are preceded by a specific electrical charge in the brain (the "readiness potential"), which begins several hundred milliseconds before the human subjects become consciously aware of their intention to act. This suggests that the volitional process is initiated unconsciously. Some philosophers and scientists have been tempted to conclude that willed actions are determined by unconscious forces and hence that our awareness of conscious control is illusory. However, it is argued that there is still a role for consciousness in controlling the outcome of willed actions, since consciousness can veto the act once underway. Thus, free will is not necessarily excluded, though novel neuroscientific findings place constraints on how free will could operate and how we are to make sense of it in terms of current research on the brain.

Keywords: consciousness, conscious will, voluntary action, volition, brain

I have taken an experimental approach to the question of whether we have free will. Freely voluntary acts are preceded by a specific electrical change in the brain (the "readiness potential", RP) that begins 550 msec, before the act. Human subjects became aware of intention to act 350–400 msec, *after RP* starts, but 200 msec, before the motor act. The volitional process is therefore *initiated* unconsciously. But the conscious function could still control the outcome; it can veto the act. Free will is therefore not excluded. These findings put constraints on views of how free will may operate; it would not initiate a voluntary act but it could *control* performance of the act. The findings also affect views of guilt and responsibility.

But the deeper question still remains: Are freely voluntary acts subject to macro-deterministic laws or can they appear without such constraints, nondetermined by

natural laws and “truly free”? I shall present an experimentalist view about these fundamental philosophical opposites.

The question of free will goes to the root of our views about human nature and how we relate to the universe and to natural laws. Are we completely defined by the deterministic nature of physical laws? Theologically imposed fateful destiny ironically produces a similar end-effect. In either case, we would be essentially sophisticated automatons, with our conscious feelings and intentions tacked on as epiphenomena with no causal power. Or do we have some independence in making choices and actions, not completely determined by the known physical laws?

I have taken an experimental approach to at least some aspects of the question. The operational definition of free will in these experiments was in accord (p. 552) with common views. First, there should be no external control or cues to affect the occurrence or emergence of the voluntary act under study; that is, it should be endogenous. Second, the subject should feel that he or she wanted to do it, on her or his own initiative, and feel he or she could control what is being done, when to do it or not to do it. Many actions lack this second attribute. For example, when the primary motor area of the cerebral cortex is stimulated, muscle contractions can be produced in certain sites in the body. However, the subject (a neurosurgical patient) reports that these actions were imposed by the stimulator, that is, that he did not will these acts. And there are numerous clinical disorders in which a similar discrepancy between actions and will occurs. These include the involuntary actions in cerebral palsy, Parkinsonism, Huntington's chorea, Tourette's syndrome, and even obsessive compulsions to act. A striking example is the “alien hand syndrome.” Patients with a lesion in a fronto-medial portion of premotor area may find that the hand and arm on the affected side performs curious purposeful actions, such as undoing a buttoned shirt when the subject is trying to button it up; all this occurs without or even against the subject's intention and will. (See Spence and Frith 1999: 23.)

1. Timing of Brain Processes and Conscious Will

Performance of “self-paced” voluntary acts had, surprisingly, been found to be preceded by a slow electrical change recordable on the scalp at the vertex (Kornhuber and Deecke 1965). The onset of this electrical indication of certain brain activities preceded the actual movement by up to 1 sec or more. It was termed the “Bereitschaftpotential” or “readiness potential” (RP). To obtain the RP required averaging the recordings in many self-paced acts. Subjects were therefore asked to perform their acts within time intervals of 30 sec. to make the total study manageable. In our experiments, however, we removed this constraint on freedom of action; subjects performed a simple flick or flexion of the wrist at any time they felt the urge or wish to do so. These voluntary acts were to be

performed capriciously, free of any external limitations or restrictions (Libet et al. 1982). RPs in these acts began with onsets averaging 550 msec, before activation of the involved muscle (Figure 25.1).

The brain was evidently beginning the volitional process in this voluntary act well before the activation of the muscle that produced the movement. My question then became, *When* does the *conscious* wish or intention (to perform the act) (p. 553) appear? In the traditional view of conscious will and free will, one would expect conscious will to appear before, or at the onset, of the RP, and thus command the brain to perform the intended act. But an appearance of conscious will 550 msec, or more before the act seemed intuitively unlikely. It was clearly important to establish the time of the conscious will relative to the onset of the brain process (RP); if conscious will were to *follow* the onset of RP, that would have a fundamental impact on how we could view free will.

To establish this temporal relation required a method for measuring the time of appearance of the conscious will in each such act. Initially, that seemed to me an impossible goal. But after some time it occurred to me to try having the subject report a "clock-time" at which he or she was *first aware* of the wish or urge to act (Figure 25.2) (Libet et al., 1983a). The clock had to be much faster than the usual clock, in order to accommodate time differences in the hundreds of msec. For our clock, the spot of light of a cathode ray oscilloscope was made to revolve around the face of the scope like the sweep-second hand of an ordinary clock, but at a speed approximately 25 times as fast. Each of the marked off "seconds" around the periphery was thus equivalent to about 40 msec. When we tried out this method, we were actually surprised to find that each subject reported times for *first awareness of wish to act* (W) with a reliability of 20 msec., for each group of 40 such trials. A test for the accuracy of such reports was also encouraging. In this, the subject remained relaxed and did *not* perform any voluntary act. Instead, a weak electrical stimulus was delivered to the skin of the same hand. The stimulus was applied at random times in the different trials. The experimental observers knew the actual time for each stimulus. The subject did not know this actual time but was asked to report the clock-time at which he felt each such stimulus. Subjects accomplished this with an error of only −50 msec.

1.1. The Experiment

In the actual experiment, then, each RP was obtained from an averaged electrical recording in 40 trials. In each of these trials, the subject performed the sudden flick of the wrist whenever he or she freely wanted to do so. After each of these trials, the subject reported W, the clock-time associated with the first awareness of the wish to move (Libet et al. 1983a).

1.2. Brain Initiates Voluntary Act Unconsciously

Fig. 25.1. Readiness potentials (RP) preceding self-initiated voluntary acts. Each horizontal row is the computer-averaged potential for 40 trials, recorded by a DC system with an active electrode on the scalp, either at the midline-vertex (Cz) or on the left side (contralateral to the performing right hand (Cc).

When every self-initiated quick flexion of the right hand (fingers or wrist) in the series of 40 trials was (reported as having been) subjectively experienced to originate spontaneously and with no planning by the subject, RPs labeled type II were found in association. (Arrowheads labeled MN indicate onset of the “main negative” phase of the vertex recorded type II RPs in this figure; see Libet et al 1982. Onsets were also measured for 90% of the total area of RP). When an awareness of a general intention or planning to act sometime within the next second or so was reported to have occurred before some of the 40 acts in the series, type I RPs were recorded (ibid). In the last column, labeled S, a near-threshold skin stimulus was applied in each of the 40 trials at a randomized time unknown to the subject, with no motor act performed; the subject was asked to recall and report the time when he became aware of each stimulus in the same way he reported the time of awareness of wanting to move in the case of self-initiated motor acts.

The solid vertical line through each column represents o time, at which the electromyogram (EMG) of the activated muscle begins in the case of RP series, or at which the stimulus was actually delivered in the case of S series. The dashed horizontal line represents the DC baseline drift.

For subject S.S., the first RP (type I) was recorded before the instruction “to let the urge come on its own, spontaneously” was introduced; the second RP (type II) was obtained after giving this instruction in the same session as the first. For subjects G.L., S.B., and B.D., this instruction was given at the start of all sessions. Nevertheless, each of these subjects reported some experiences of loose planning in one of the 40-trial series, those series exhibited type I RPs rather than type II. Note that the slow negative shift in scalp potential that precedes EMGs of self-initiated acts (RP) does not precede the skin stimulus in S series. However, evoked potentials following the stimulus are seen regularly to exhibit a large positive component with a peak close to +300 ms. (arrow indicates this time), this P300 event-related potential had been shown by others to be associated with decisions about uncertain events (in this case, the time of the randomly delivered stimulus), and it also indicates that the subject is attending well to the experimental conditions.

The results of many such groups of trials are diagrammed in Figure 25.3. For groups in which all the voluntary acts were freely spontaneous, with no reports (p. 554) (p. 555) of rough planning of when to act, the onset of RP averaged −550 msec, (before the muscle was activated). The W times for first awareness of wish to act averaged about −200 msec., for all groups. This value was the same even when subjects reported having pre-planned roughly when to act! If we correct W for the −50 msec, error in the subjects' reports of timings of the skin stimuli, we have an average corrected W of about −150 msec. Clearly, the brain process (RP) to prepare for this voluntary act began about 400 msec, before the appearance of the conscious will to act (W). This relationship was true for every group of 40 trials and in every one of the nine subjects studied. It should also be noted that the actual difference in times is probably greater than the 400 msec; the actual initiating process in the brain probably starts before our recorded RP, in an unknown area that then activates the supplementary motor area in the cerebral cortex. The supplementary motor area is located in the midline near the vertex and is thought to be the source of our recorded RP.

2. Any Role for Conscious Will?

The initiation of the freely voluntary act appears to begin in the brain unconsciously, well before the person consciously knows he wants to act!. Is there, then, any role for conscious will in the performance of a voluntary act? (see Libet, 1985) To answer this it must be recognized that conscious will (W) does appear about 150 msec, before the muscle is activated, even though it follows onset of the RP.

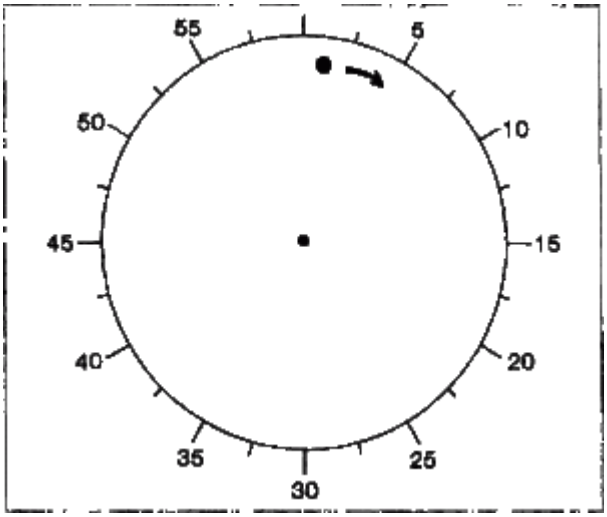

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Fig. 25.2 Oscilloscope “clock.” Spot of light revolves around periphery of screen, once in 2.56 sec. (instead of 60 sec. for a sweep-second hand of a regular clock). Each marked off “second” (in the total of 60 markings) represents 43 msec, of actual time here. The subject holds his gaze to the center of the screen. For each performed quick flexion of the wrist, at any freely chosen time, the subject was asked to note the position of the clock spot when he or she first became aware of the wish or intention to act. This associated clock time is reported by the subject later, after the trial is completed.

(p. 556)

An interval of 150 msec, would allow enough time in which the conscious function might affect the final outcome of the volitional process. (Actually, only 100 msec, is available for any such effect. The final 50 msec, before the muscle is activated is the time for the primary motor cortex to activate the spinal motor nerve cells. During this time the act goes to completion with no possibility of stopping it by the rest of the cerebral cortex.)

Potentially available to the conscious function is the possibility of stopping or vetoing the final progress of the volitional process, so that no actual muscle action ensues. *Conscious will could thus affect the outcome* of the volitional process even though the latter was initiated by unconscious cerebral processes. Conscious will might block or veto the process, so that no act occurs.

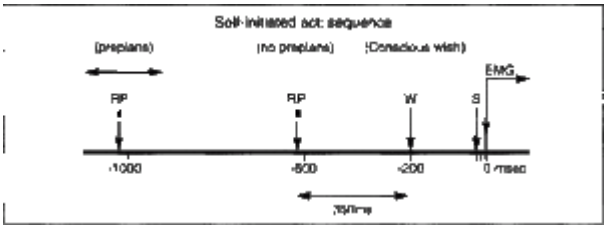

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Fig. 25.3 Diagram of sequence of events, cerebral and subjective, that precede a fully self-initiated voluntary act. Relative to o time, detected in the electromyogram (EMG) of the suddenly activated muscle, the readiness potential (RP an indicator of related cerebral neuronal activities) begins first, at about −1050 ms. when some planning is reported (RP I) or about −550 ms. with spontaneous acts lacking immediate planning (RP II). Subjective awareness of the wish to move (W) appears at about −200 ms., some 350 ms. after onset even of RP II; however, W does appear well before the act (EMG). Subjective timings reported for awareness of the randomly delivered S (skin) stimulus average about −50 ms. Relative to actual delivery time (from Libet 1989).

(p. 557)

The existence of a veto possibility is not in doubt. The subjects in our experiments at times reported that a conscious wish or urge to act appeared but that they suppressed or vetoed that. In the absence of the muscle's electrical signal when being activated, there was no trigger to initiate the computer's recording of any RP that may have preceded the veto; thus, there were no *recorded* RPs with a vetoed intention to act. We were, however, able to show that subjects could veto an act planned for performance at a prearranged time. They were able to exert the veto within the interval of 100 to 200 msec, before the preset time to act (Libet et al., 1983b). A large RP preceded the veto, signifying that the subject was indeed *preparing* to act, even though the action was aborted by the subject. All of us, not just experimental subjects, have the experience of vetoing a spontaneous urge to perform some act. This often occurs when the urge to act involves some socially unacceptable consequence, like an urge to shout some obscenity at the professor. (Incidentally, in the disorder called Tourette's syndrome, subjects do spontaneously shout obscenities. These acts should not be regarded as freely voluntary. No RP appears before such an act. A quick reaction to an unwarned stimulus also lacks a preceding RP, and it is not a freely voluntary act.)

Another hypothetical function for conscious will could be to serve as a “trigger” that is required to enable the volitional process to proceed to final action. However, there is no evidence for this, such as there is for a veto function, and (p. 558) the “trigger” possibility also seems unlikely on other grounds. For example, voluntary acts that become somewhat “automatic” can be performed with no reportable conscious wish to do so; the RP is rather minimal in amplitude and duration before such automatic acts. Automatic acts clearly go to completion without any conscious trigger available.

2.1. Does The Conscious Veto Have a Preceding Unconscious Origin?

One should, at this point, consider the possibility that the conscious veto itself may have its origin in preceding unconscious processes, just as is the case for the development and appearance of the conscious will. If the veto itself were to be initiated and developed unconsciously, the choice to veto would then become an unconscious choice of which we *become* conscious, rather than a consciously causal event. Our own previous evidence had shown that the brain “produces” an awareness of something only after about a 0.5 sec. period of appropriate neuronal activations (see reviews by Libet 1993, 1996).

Some have proposed that even an unconscious initiation of a veto choice would nevertheless be a genuine choice made by the individual and could still be viewed as a free will process (for example. Velmans 1991). I find such a proposed view of free will to be unacceptable. In such a view, the individual would not consciously control his actions; he would only become aware of an unconsciously initiated choice. He would have no direct conscious control over the nature of any preceding unconscious processes. But a free will process implies one could be held consciously responsible for one's choice to act or not to act. We do not hold people responsible for actions performed unconsciously, without the possibility of conscious control. For example, actions by a person during a psychomotor epileptic seizure, or by one with Tourette's syndrome, and so on, are not regarded as actions of free will. Why, then, should an act unconsciously developed by a normal individual, a process over which he also has no conscious control, be regarded as an act of free will?

I propose, instead, that the conscious veto may *not* require or be the direct result of preceding unconscious processes. The conscious veto is a *control* function, different from simply becoming aware of the wish to act. There is no logical imperative in any mind-brain theory, even identity theory, that requires specific neural activity to precede and determine the nature of a conscious control function. And there is no experimental evidence against the possibility that the control process may appear without development by prior unconscious processes.

Admittedly, to be conscious of the decision to veto does mean one is aware of the event. How may one reconcile this with my proposal? Perhaps we should (p. 559) revisit the concept of awareness, its relation to the content of awareness, and the cerebral processes that develop both awareness and its contents. Our own previous studies have indicated that *awareness* is a unique phenomenon in itself, distinguished from the contents of which one may become aware. For example, awareness of a sensory stimulus can require similar durations of stimulus trains for somatosensory cortex and for medial lemniscus. But the *content* of those awarenesses in these two cases is different, in the subjective timings of sensations (Libet et al. 1979). The content of an unconscious mental process (for example correct detection of a signal in the brain *without any awareness* of the signal) may be the same as the content *with awareness* of the signal. But to become

aware of that same content required that stimulus duration be increased by about 400 msec (see Libet et al. 1991).

In an endogenous, freely voluntary act, awareness of the intention to act is delayed for about 400 msec after brain processes initiate the process unconsciously (Libet et al. 1983; Libet 1985). Awareness developed here may be thought of as applying to the whole volitional process; that would include the content of the conscious urge to act and the content of factors that may affect a conscious veto. One need not think of awareness of an event as restricted to one detailed item of content in the whole event.

The possibility is not excluded that factors, on which the decision to veto (control) is *based*, do develop by unconscious processes that precede the veto. However, the *conscious decision to veto* could still be made without direct specification for that decision by the preceding unconscious processes. That is, one could consciously accept or reject the program offered up by the whole array of preceding brain processes. The *awareness* of the decision to veto could be thought to require preceding unconscious processes, but the *content* of that awareness (the actual decision to veto) is a separate feature that need not have the same requirement.

3. What Significance Do Our Findings Have for Voluntary Acts in General?

Can we assume that voluntary acts other than the simple one studied by us also have the same temporal relations between unconscious brain processes and the appearance of the conscious wish/will to act? It is common in scientific researches to be limited technically to studying a process in a simple system; and then to find that the fundamental behavior discovered with the simple system does indeed (p. 560) represent a phenomenon that appears or governs in other related and more complicated systems. For example, the charge on a single electron was measured by Milliken in one isolated system, but it is valid for electrons in all systems. It should also be noted that RPs have been found by other investigators to precede other more complex volitional acts, such as beginning to speak or to write; they did not, however, study the time of appearance of the conscious wish to begin such acts. We may, therefore, allow ourselves to consider what general implications may follow from our experimental findings, while recognizing that an extrapolation to encompass voluntary acts in general has been adopted.

We should also distinguish between *deliberations* about what choice of action to adopt (including planning of when to act on such a choice) and the final intention actually "to act now." One may, after all, deliberate all day about a choice but never act; there is *no voluntary act* in that case. In our experimental studies we found that in some trials subjects engaged in some conscious planning of roughly when to act (in the next second or so). But even in those cases, the subjects reported times of the conscious wish to actually act to be about −200 msec.; this value was very close to the values reported for fully spontaneous voluntary acts with no planning. The onset of the unconscious brain process (RP) for preparing to act was well before the final conscious intention "to act now" in all cases. These findings indicated that the sequence of the volitional processes "to act now" may apply to all volitional acts, regardless of their spontaneity or prior history of conscious deliberations.

4. Ethical Implications of How Free Will Operates

The role of conscious free will would be, then, not to initiate a voluntary act, but rather to *control* occurrences of the act. We may view the unconscious initiatives for voluntary actions as "bubbling up" in the brain. The conscious-will then selects which of these initiatives may go forward to an action or which ones to veto and abort, with no act appearing.

This kind of role for free will is actually in accord with religious and ethical strictures, which commonly advocate that you “control yourself” Most of the Ten Commandments are “do not” orders.

How do our findings relate to the questions of when one may be regarded as guilty or sinful, in various religious and philosophical systems? If one experiences a conscious wish or urge to perform a socially unacceptable act, should that be (p. 561) regarded as a sinful event even if the urge has been vetoed and no act has occurred? Some religious systems answer yes. President Jimmy Carter admitted to having had urges to perform a lustful act. Although he did not act, he apparently still felt sinful for having experienced a lustful urge.[1] But any such urges would be initiated and developed in the brain unconsciously, according to our findings. The mere appearance of an intention to act could not be controlled consciously; only its final consummation in a motor act could be consciously controlled. Therefore, a religious system that castigates an individual for simply having a mental intention or impulse to do something unacceptable, even when this is not acted out, would create a physiologically insurmountable moral and psychological difficulty.

Indeed, insistence on regarding an unacceptable urge to act as sinful, even when no act ensues, would make virtually all individuals sinners. In that sense such a view could provide a physiological basis for “original sin”! Of course, the concept of “original sin” can be based on other views of what is regarded as sinful.

Ethical systems deal with moral codes or conventions that govern how one behaves toward or interacts with other individuals; they are presumably dealing with actions, not simply with urges or intentions. Only a motor act by one person can directly impinge on the welfare of another. Since it is the performance of an act that can be consciously controlled, it should be legitimate to hold individuals guilty of and responsible for their acts.

5. Determinism and Free Will

There remains a deeper question about free will that the foregoing considerations have not addressed. What we have achieved experimentally is some knowledge of the way free will may operate. But we have not answered the question of whether our consciously willed acts are fully determined by natural laws that govern the activities of nerve cells in the brain, or whether acts and the conscious decisions to perform them can proceed to some degree independently of natural determinism. The first of these options would make free will illusory. The conscious feeling of exerting one's will would then be regarded as an epiphenomenon, simply a byproduct of the brain's activities but with no causal powers of its own.

First, it may be pointed out that free choices or acts are *unpredictable*, even if they should be completely determined. The “uncertainty principle” of Heisenberg precludes our having a complete knowledge of the underlying molecular activities. Quantum mechanics forces us to deal with probabilities rather than (p. 562) with certainties of events. And, in chaos theory, a random event may shift the behavior of a whole system, in a way that was not predictable. However, even if events are not predictable in practice, they might nevertheless accord with natural laws and therefore be determined.

Let us rephrase our basic question as follows: *Must* we accept determinism? Is non-determinism a viable option? We should recognize that both of these alternative views (natural law determinism versus nondeterminism) are unproven theories, that is, unproven in relation to the existence of free will. Determinism has, on the whole, worked well for the physical observable world. That has led many scientists and philosophers to regard any deviation from determinism as absurd and witless, and unworthy of consideration. But no evidence, nor even a proposed experimental test design, definitively or convincingly demonstrates the validity of natural law determinism as the mediator or instrument of free will.

There is an unexplained gap between the category of physical phenomena and the category of subjective phenomena. As far back as Leibniz, it was pointed out that if one looked into the brain with a full knowledge of its physical makeup and nerve cell activities, one would see nothing that describes subjective experience. The whole foundation of our own experimental studies of the physiology of conscious experience (beginning in the late 1950s) was that externally observable and manipulable brain processes and the related reportable subjective introspective experiences must be studied simultaneously, as independent categories, to understand their relationship. The assumption that a deterministic nature of the physically observable world (to the extent that may be true) can account for subjective conscious functions and event, is a speculative *belief*, not a scientifically proven proposition.

Nondeterminism, the view that conscious will may, at times, exert effects not in accord with known physical laws, is of course an unproven speculative belief. The view that conscious will can affect brain function in violation of known physical laws takes two forms. In one it is held that the violations are not detectable, because the actions of the mind may be at a level below that of the uncertainty allowed by quantum mechanics. (Whether this last proviso can in fact be tenable is a matter yet to be resolved). This view would thus allow for a nondeterministic free will without a perceptible violation of physical laws. In a second view it may be held that violations of known physical laws are large enough to be detectable, at least in principle. But, it can be argued, detectability in actual practice may be impossible. That difficulty for detection would be especially true if the conscious will is able to exert its influence by minimal actions at relatively few nerve elements; these actions could serve as triggers for amplified nerve cell patterns of activity in the brain. In any case, we do not have a scientific answer to the question of which theory (determinism or nondeterminism) may describe the nature of free will.

(p. 563) However, we must recognize that the almost universal experience that we can act with a free, independent choice provides a kind of prima facie evidence that conscious mental processes can causatively control some brain processes (Libet, 1992, 1994). This creates, for an experimental scientist, more difficulty for a determinist than for a non-determinist option. The phenomenal fact is that most of us feel that we do have free will, at least for some of our actions and within certain limits that may be imposed by our brain's status and by our environment. The intuitive feelings about the phenomenon of free will form a fundamental basis for views of our human nature, and great care should be taken not to believe allegedly scientific conclusions about them that actually depend upon hidden ad hoc assumptions. A theory that simply interprets the phenomenon of free will as illusory and denies the validity of this phenomenal fact is less attractive than a theory that accepts or accommodates the phenomenal fact.

In an issue so fundamentally important to our view of who we are, a claim for illusory nature should be based on fairly direct evidence. Such evidence is not available; nor do determinists propose even a potential experimental design to test the theory. Actually, I myself proposed an experimental design that could test whether conscious will could influence nerve cell activities in the brain, doing so via a putative “conscious mental field” that could act without any neuronal connections as the mediators (Libet 1994). This difficult though feasible experiment has, unfortunately, still to be carried out. If it should turn out to confirm the prediction of that field theory, there would be a radical transformation in our views of mind-brain interaction.

My conclusion about free will, one genuinely free in the nondetermined sense, is then that its existence is at least as good, if not a better, scientific option than is its denial by determinist theory. Given the speculative nature of both determinist and nondeterminist theories, why not adopt the view that we do have free will (until some real contradictory evidence may appear, if it ever does)? Such a view would at least allow us to proceed in a way that accepts and accommodates our own deep feeling that we do have free will. We would not need to view ourselves as machines that act in a manner completely controlled by the known physical laws. Such a permissive option has also been advocated by the neurobiologist Roger Sperry (see Doty 1998).[2]

I close, then, with a quotation from the great novelist Isaac Bashevis Singer that relates to the foregoing views. Singer stated his strong belief in our having free will. In an interview (Singer 1968) he volunteered that “The greatest gift which humanity has received is free choice. It is true that we are limited in our use of free choice. But the little free choice we have is such a great gift and is potentially worth so much that for this itself life is worthwhile living.”

Notes:

(1.) President Carter was drawing on a Christian tradition deriving from the following two verses in the Sermon on the Mount: “[Jesus said], ‘Ye have heard that it was said by them of old time, Thou shalt not commit adultery: But I say unto you, That whosoever looketh on a woman to lust after her hath committed adultery with her already in his heart’ ” (Matthew 5.27–28).

(2.) The belief by many people that one's fate is determined by some mystical reality or by divine intervention produces a difficult paradox for those who also believe we have free will and are to be held responsible for our actions. Such a paradox can arise in the Judeo-Christian view that (a) God is omnipotent, knows in advance what you are going to do, and controls your fate, while (b) also strongly advocating that we can freely determine our actions and are accountable and responsible for our behavior. This difficulty has led to some theological attempts to resolve the paradox. For example, the Kabbalists proposed that God voluntarily gave up his power to know what man was going to do, in order to allow man to choose freely and responsibly and to possess free will.

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