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The Status of Free Will: A Philosophical and Empirical Analysis

Gordon Kerns

While the problem of Free Will has been deliberated for many years, it continues to be a relevant subject of discussion, for as Flanagan says, “The belief in free will is a central component of the dominant humanistic image in the West”¹² (Flanagan, 111). Free Will¹³ is a very important, though mysterious, concept in the West, and so a problem with Free Will is a very important problem. This paper will explore why the supposed existence of this faculty is threatened, and whether or not the problematic aspects of Free Will can be identified and resolved. Unfortunately, large-scale speculation about the ramifications of my conclusions goes beyond the scope of this paper. The consequences of my findings should not sway any of my arguments for or against Free Will per se, as they are another problem altogether, and therefore will only be mentioned briefly.

Any investigation into the existence of Free Will must first define that which it is investigating. The difficulty in defining Free Will, though, is what makes understanding it so problematic. Due to the subjective nature of Free Will (in that, because my actions seem free to me I assume I have Free Will) the concept is vague at best, so any derivations made from this concept only blur the issue further. For example, eating

¹² Owen Flanagan, The Problem of the Soul (New York: Basic Books, 2002) 110-152

¹³ In this paper I capitalize ‘free will’ when it is meant to refer to the concept “ordinary people of common sense” hold, namely a self-caused mode of mental processing—self-caused in the sense that there exist no antecedent conditions for its existence, save for the pure exercise of the will

a slice of pie that may or may not contain apples does not make it any easier to locate an apple in a grocery store. Without a clear definition you cannot even know what you are looking for. In order to clarify the matter to allow a sufficient understanding of Free Will's current status, I will look at the various problems surrounding Free Will and some of the proposed solutions. Neither science—more specifically neuroscience—nor philosophy is sufficient on its own to paint a complete (or even satisfactory) picture of Free will, so with a combined analysis through both disciplines it will be shown that the classical conception of Free Will is irreparably flawed and our perceived capacity for free choice in general is an illusion.

The problem with Free Will as I have defined it—the self-caused mode of mental processing—is that it appears logically inconsistent with the theory of causality; if everything that exists is an effect of sufficient causes, there can be no self-caused actions. In an attempt to bypass this logical inconsistency, Libertarians claim that, “for *any* choice to be free, it must be absolutely *uncaused*”¹⁴ (Churchland, 203). But as Hume points out, “free choices and decisions are in fact caused by other events in the mind: desires, beliefs, preferences, feelings, and so forth” (Churchland, 203; from Hume's *A Treatise on Human Nature*). A choice with no antecedent determining desires, intentions or beliefs is actually considered *out* of that person's control and not something they are held responsible for. Having never acquired much of a taste for coffee, if the desire to walk to the nearest coffee shop and order a double espresso suddenly popped into my head “without antecedent connection to my other desires

¹⁴ Patricia Churchland, Brain-wise: Studies in Neurophilosophy (Cambridge: MIT Press, 2002) 203-236

or...general character” I would feel like someone was controlling my brain. Not only is responsible choice logically inconsistent with Libertarianism, but also by having to account for an uncaused entity that possesses intention, Libertarianism only confuses Free Will more. Since the Libertarian version of Free Will is incompatible with causality, it seems one of the two must be wrong. To help this matter, Flanagan says, “The regulative idea that this world...is fully natural, obedient at every juncture to whatever laws nature abides, has proved again and again to be progressive, to yield knowledge. The regulative ideal that holds out for the sort of causation required of free will has led nowhere” (Flanagan, 152). As we understand it now, the theory of causality is fundamental to the operations of the entire universe; Free Will only to humans. If one is wrong, it seems more likely to be the latter. For this reason I will focus on the issue of Free Will.

Since Libertarianism fell short of providing a satisfactory account of Free Will, other solutions must be considered. The most straightforward solution might be to eliminate the idea of free will altogether. Would it be so bad if we only thought of ourselves as automata, reacting only to our environment like we suppose many non-human animals do? Why do we believe to possess a freedom of the will in the first place? For the latter, a simple answer may be that we have been conditioned to believe it. Every day instances occur where we seem to make a choice. When deliberating a course of action given two or more equal possibilities, the deciding factor seems to be nothing else than an exercise of the will (more on this topic will be discussed later). Furthermore, our whole lives we are held responsible for our actions, thus conditioning us to think of them as *our* actions (the significance for this will also be discussed later).

To answer the first question, yes, getting rid of free will completely would be bad. Perhaps the most substantial group of people to be affected would be participants of any religious faith that places consequences on various actions. For example, in the Judeo-Christian tradition a person's actions (willed thought, behavior, etc.) determine their position in the afterlife. It does not make sense for us to be punished or rewarded for actions during life if we have no control over them. So if all of our choices are just links in the causal chain, they cannot be free. On the other hand, as mentioned earlier, supposing our choices are completely uncaused actually makes the picture worse. Also, in order to be responsible for our actions the religious view must be similar to Libertarianism in that free choices must be uncaused; they must be *our* choices. For a choice to be actualized—to have an effect in the world in the desired manner—a causal relationship must be present. Therefore Free Will necessitates causality. But the choice itself must be completely uncaused, leading to the view of the agent as a prime mover, itself unmoved. Such a capacity is generally reserved for God, and I doubt many theologians want to extend it to humans.

A second reason for our actions to be *our* actions is that it seems “necessary to an agent’s learning, both emotionally and cognitively, how to evaluate the consequences of certain events and the price of taking risks” (Churchland, 236). Similarly, “It would undermine, possibly destroy, the meaning and significance of my life if *I* am not an agent, if who and what I am is in no way the result of choices I make” (Flanagan, 143). This is also the driving force behind the judicial and ethical systems in Western culture, and hence the removal of some way to ascribe responsibility would cause a big problem.

Given these responses it seems necessary that free will, in some form, exist. Therefore, "...to explain how the notion...of responsibility can make sense in the context of causation" (207), Churchland presents several traditional attempts at harmonizing caused and free choice (this distinction will be illuminated more completely later, but for now it suffices as is). First is the thought that "voluntary causes are internal, they involve the agent's intentions, and the agent must be aware of his intention." Churchland rejects this hypothesis by considering how a patient with obsessive-compulsive disorder may want and intend to wash his hands (for example), be aware of this desire and intention, know they are his, and yet the patient's actions are considered out of his control. A second conception is that a choice is free if the agent could have done otherwise. Churchland dismantles this hypothesis as well by considering, "What exactly does 'could have done otherwise' mean?" Churchland reasons, "If all behavior has antecedent causes, then 'could have done otherwise' seems to boil down to '*would have done otherwise if antecedent conditions had been different.*'" Considering this interpretation reveals the unconstructive nature of the hypothesis. It is like saying "I would have done otherwise if I had done otherwise"; the antecedent conditions lead to a certain position, and a different position can be obtained only if the antecedent conditions lead to it (Churchland, 208-210).

Free Will is incompatible with causation, yet some form of free choice is still necessary for responsibility. In the previous paragraph, attempts to harmonize responsibility and causation were unsuccessful. The solution then is to eliminate Free Will as a self-caused mental faculty and investigate other possibilities. Continuing with the apple metaphor presented earlier, not only do you not know what apples

are, you cannot even be sure you ate some, nor whether they exist at the store.

This investigation will begin by coming to understand how the previous definition of free will led to inconsistencies, beyond consideration of causation. Flanagan presents the problem as mistakenly merging the “incoherent picture of free will to the ordinary conception of voluntary action” (Flanagan, 111). He believes it is necessary to separate the two concepts, and by differentiating between voluntary and involuntary action there will arise a new notion of free agency that does not involve “a self-initiating ego” that will still allow people the idea that they are free.

To this end it is not necessary to employ a distinction between voluntary and involuntary action that distinguishes “between acts initiated by a completely self-initiating will and those that are fully explicable in causal terms” (Flanagan, 112). According to Flanagan both voluntary and involuntary acts are caused, “it is not that one sort of act is caused and the other uncaused, or that one sort of act is caused by an agent who chooses in accordance with her ‘free will’” (Flanagan, 110). Instead, Flanagan says that the difference between the two types of acts is the way in which they are caused. The distinction comes when voluntary acts are thought to involve “the agent knowing what action she is performing and acting from reasons and desired that are her own” (Flanagan, 113). Basically, an act is voluntary if the agent is conscious of it as well as the internal antecedent conditions (desires, beliefs, reasons, etc.) that contribute to the act.

To illustrate this point Flanagan uses the example of how the pupil contracts in response to light (though any entity not governed by will works equally well). It is not possible to “will that my pupils not contract to light” for that capacity is not governed by

the will. While direct manipulation of the pupil is not possible, it is possible to intervene by manipulating a different system that in turn can act on the pupil. "...if I don't want my pupils to contract there is something I can do, namely close my eyes. If I know what is happening and can find a system or subsystem that is cognitively penetrable, in this case the motor system, I can intervene to get the result I want" (Flanagan, 113). Similarly, it is not possible to will your heart to beat faster, but by consciously accelerating your breathing rate or doing some jumping jacks you can achieve the desired effect.

This example shows how we are able to override certain processes, which we would normally have no control of, by being aware of our desires and actions and manipulating a process we can control. The process of manipulating the motor system is still a result of some causal process, it is just that we can be aware of it and so can react to it.

An important note about this interpretation of voluntary versus involuntary acts is that since the act is still a result of some causal process, we are no freer to choose one act over the other. This means that from the perspective of causality, both acts are identical; they are equally caused. The difference then is how the acts appear from our perspective. Well, by even using the term perspective I have shown the difference. Actions are voluntary if they, along with the reasons and desires that gave rise to them, reach our consciousness. If we are not conscious of an action or of the reasons that gave rise to it, it is involuntary.

This leads to the conclusion that acts are never free in terms of the Libertarian notion of Free Will. On the down side, this means we really are just reacting to the world around us and don't have executive control over our actions. To get away from all of the problems this conclusion can cause, the plus side is that things still

appear the same to us. Free Will either exists or it doesn't regardless of how humans conceive of the world and therefore it is possible to redefine the notion of free will so that it fits better with our causal conception of the world and still retain the perception of a capacity to make free choices. If it still seems the same to us, if we still believe we can make free choices, then there is no effect on the entities that require a form of free will to exist (i.e., the Western ethical and judicial systems).

The conclusion that we can act voluntarily but Free Will is an illusion, as shown by Flanagan, was derived philosophically. There exists a discrepancy among definitions, and by sorting these out we come to a viable theory. What is important is what science can tell us about this theory. Since everything has been included in the causal chain that is the physical world, it is possible to test the theory empirically. There have been multiple experiments that lend support to this theory that we do not actually make free decisions but instead are only aware of some thought processes and actions and not others. I will discuss one such experiment carried out by Benjamin Libet.

Libet's experiment showed that a subject's cerebral cortex would prepare for a movement a short time before the subject was conscious of it, seeming to suggest that the supposedly conscious decision to move had actually been determined unconsciously beforehand.

The experiment involved 5 subjects, each put through at least 6 different experimental sessions consisting of 40 self-initiated movements. The subjects were asked to move one hand at an arbitrary moment decided by them, and to report when they made the decision. At the same time the electrical activity of their brain was monitored. Subjects were able to obtain timings related to their mental experiences by observing

a Wundt clock, on which there was a small light that went around a circle every 2.56 seconds¹⁵ (NC). “The reportable time for appearance of the subjective experience of ‘wanting’ or intending to act” was compared with “the recordable cerebral activity that precedes a freely voluntary, fully endogenous motor act”¹⁶ (Libet). This preceding cerebral activity is called the ‘readiness potential’ and was found by Kornhuber and Deecke in 1964 (NC) when they averaged many EEG recordings from subjects who were about to move a finger. They discovered that the increase in potential could start up to 2 seconds before the movement.

Using this information, Libet found that for experimental sessions in which the subject “reported that all of the 40 self-initiated movements in the series appeared ‘spontaneously’ and capriciously,” the readiness potential preceded the reported time of intention to act by an average of 350 ms. Trials “in which an experience of preplanning occurred in some of the 40 self-initiated acts,” the readiness potential preceded the reported time by an average of 500 ms. Comparable values were yielded when two different modes of recall were utilized. The “subjects distinguished awareness of wanting to move from awareness of actually moving” and the reported times for wanting to move were “consistently and

¹⁵ The Neuroscience of Consciousness (NC).

<http://www.users.globalnet.co.uk/~lka/conz3a.htm> (last visited 12/17/2004)

¹⁶ Benjamin Libet, et al. Time of conscious intention to act in relation to onset of cerebral activity (readiness-potential). The unconscious initiation of a freely voluntary act. (Oxford University Press 1983) *Brain* 106, Issue 3: 623-642

http://brain.oupjournals.org/cgi/content/abstract/106/3/623?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&author1=libet&andorexactfulltext=and&searchid=1102889927874_1364&stored_search=&FIRSTINDEX=0&sortspec=relevance&resourcetype=1&journalcode=brain (last visited 12/17/2004)

substantially...in advance of” the mean times reported for the awareness of actually moving (Libet).

Libet concludes that the “cerebral initiation of a spontaneous, freely voluntary act can begin unconsciously, that is, before there is any...subjective awareness that a ‘decision’ to act has already been initiated cerebrally” (Libet). Before interpreting Libet’s results further, it is important to acknowledge several challenges. First, the significance of readiness potentials could be brought into question. If it is found that readiness potentials are not what previously thought, the whole experiment could be rejected. Second, and to me most importantly, there seems to be much room for error when the time-scale of the experiment is in the hundredths of seconds. Given that the experiment relies on detecting and comparing brain activity, and that there exist at least two mental reporting processes (one to do with the occurrence of the decision, and one to do with the state of the clock) it is possible that any judgment of simultaneity could be problematic—a very small difference in time could throw off the whole experiment. Also, the small number of test subjects may incorrectly represent the larger population.

Fortunately, Libet’s results have been reproduced (Keller & Heckhausen 1990), substantiating them enough to draw conclusions. While the results pose a problem for the “potentiality for conscious initiation and control of voluntary acts” (Libet), they “are consistent with the idea of the cortex as a modeling system that constructs a consistent model of events to pass on to whatever mediates conscious experience” (NC). This is a fancy way of saying that free will is an illusion.

It seems that a rational reconsideration of the notion of free will from the philosophical perspective,

as well as studies in the empirical sciences, agree that not only is Free Will as a self-caused mental faculty incompatible and incoherent, but also that our capacity for free choice is an illusion. Empirical evidence shows the illusion to be due the extremely close proximity of the conscious forming of an intention, the unconscious preparation for an action, and the execution of that action. Philosophically, Flanagan claims the illusion is due to the fact that we “overrate the causes we are in touch with first-personally.” He explains, “When I deliberate and choose among the options before me, I am in touch with the relevant processes, the processes of deliberation and choice. I am not in touch with...what causes me to deliberate and weight my options as I do” (Flanagan, 114). It is this misstep that that causes us to perceive deliberation as self-caused.

Of course it is not possible to satisfy everybody with this new theory of free will, I doubt theologians are willing to concede uncaused choices, but for most people the change should not affect anything except their mindset. The non-existence of a self-causing entity resolves the issue of causation. The most important thing to consider is the consequences this theory has on responsibility. How can we have an ethical system? How can we justify putting someone in jail? How can people learn how to evaluate consequences of events and the price of taking risks? The answer to all of these is simple: changing the definition of free will does not change its role in our society. If the theory is correct and free choice is an illusion, then it is the case that it has always been an illusion, we just were not aware of it, and so it is obviously possible for all the things we have to continue to exist. It doesn't matter if it is an illusion if we still believe we are in control.