

Freeing Freedom from Illusion:

B. Kamran Swanson

Honors Thesis

April 6, 2005

“The strong man has ever first in his thoughts, that all things follow from the necessity of the divine nature...”–Spinoza (236)

“The wise is one thing, to be acquainted with true judgement, how all things are steered through all.”–Heraclitus (Kirk, 202)

“The mind has greater power over the emotions and is less subject thereto, in so far as it understands all things as necessary.” –Spinoza (250)

“You would not find out the boundaries of soul, even by traveling along every path: so deep a measure does it have.” –Heraclitus (Kirk 203)

Cover Letter

This thesis paper attempts to dispel what I believe to be a common misconception of free-will. It was motivated from my conversations with students and professors at Bemidji State University, as well as what I have understood to be the common conception of free-will that is inherent in western culture and religion. It is regrettably lacking in “scholarship,” in that I have not made great use of the current discussions concerning free-will that have been made in recent years by professional philosophers.

As a capstone undergraduate paper, I have mixed feelings of satisfaction. I am mostly content with the paper as an expression of my current philosophy. I came to BSU with a very Platonic worldview. In fact, I just assumed that all philosophers were Platonists at the time: that there is such a thing as an immaterial soul, universal truths, an ultimate good, a priori knowledge and so forth. That view was subsequently shattered by the end of my first year, and I spent the next two years without any beliefs. While intellectually honest (at the time), the position is disabling to thought—or so it seems to me. Lately, however, many things began to come into focus and come together, and I have been able to re-assemble a pragmatic worldview of sorts; one that is far from concrete or certain, but at least it is a paradigm that contains beliefs and arguments that I can review, modify, or reject. One of the purposes of this paper is to present the majority of this worldview while dealing with the problem of free-will.

As an exercise in writing, I am dissatisfied. Many professors on this campus have given me excellent commentary and critique on the structure of my writing, and although my writing has improved, it has not improved nearly as much as it could have had I made more of an effort to learn my lessons. I fear that I will disappoint.

As an argument, there are certainly some places that are more concrete and clear than others. In my core argument, that the traditional conception of free-will violates the first law of thermodynamics, I believe the logic to be sound, clear, and irrefutable without the unintelligible and insupportable introduction of divine or magical miracles. I have greater doubts in my ability to explain the phenomenal and natural world paradigms, and in my ability to use the explanation in support of my main argument.

Freeing Freedom from Illusion:

B. Kamran Swanson

In the year 500BC., a Greek by the name of Heraclitus wrote a book titled “On Nature.” All that remains of this book are fragments, and from these fragments we can get a flavor for the sort of problems that Heraclitus tackled. His nickname is “The Dark Philosopher,” a fitting name for three reasons. He was dark in his own day because he lived in solitude, and he remained a mysterious hermit to his fellow Ionians. He is dark to us because so few of his words are left, and what remains is more poetic and metaphorical than what has come to be considered good philosophy by today’s academic philosophers. But he is dark to everyone because of the subject of his work. Heraclitus described a universe that was in constant flux, but governed by War. In this world, most humans appear to be arrogant cattle, confident that they understand truth and are in command of their own destiny, but in reality are slaves to external forces and their own passions. But there are a few who are the “best”; because of some special knowledge they have of the natural world, they have attained freedom, are masters of their own lives, and are equal to ten thousand other men. These “dry” men are gods and immortals among slaves. It is not surprising to see why many have viewed Heraclitus as a pessimist towards human nature and a fascist. But I think that Heraclitus deserves more credit; he saw something about free will that seems to have been ignored, only to be explored over two thousand years later by Benedict de Spinoza; humans do not have free will, although our ignorance of nature often leads us to believe that we do; but we can win a different sort of freedom that is dependent on *wisdom*.

Is it the case that humans have free will? In other words, is the “I” the master of all the

choices the “I” makes and the one who is wholly responsible for its choices? Is the “I” the initial cause for the series of events that begins with choice and proceeds to behavior, subsequent thought, and beyond? Or is it the case that conscious decision is simply a link in the chain of causality; a peculiar entity, but ultimately determined by the non-conscious events that occurred prior to the choice? Alternatively, is there a third option? Could it be the case that some of our choices are of the first type (the free will choice) and some are of the second type (the determined choice)? Or that a particular choice could have free will aspects *and* deterministic aspects?

In this essay, I will attempt to answer these questions. In order to do this, free will must be examined from different paradigms, because free will looks and functions differently in different paradigms. The two primary paradigms are the natural world paradigm and the phenomenal world paradigm. Within these paradigms, the themes of language, causality, and agency will be analyzed in terms of each paradigm. Once this groundwork has been established, the interaction between the two paradigms will be investigated; this is the critical point in understanding free will, as free will requires the phenomenal world activity of **choosing** to affect changes in the natural world.

The first task is to establish the paradigms. The natural world paradigm is the world that exists independently of perception, or pre-perceptual. In the natural world, colors cannot be thought of as “red;” the object that is red must instead be thought of as an object that reflects lightwaves of 559nm. The phenomenal world is the world in which we perceive, experience, and dwell. The phenomenal world is a representation of parts of the natural world, but it is not a perfect reflection. If it were, we could perceive the light waves themselves, the atoms that

compose objects, the objects blocked from our sight by intervening objects, radio waves, x-rays, the forces of gravity, etc.. No one lives in or deals with the natural world directly, although we all deal with it indirectly, through the perceptual world. However, we can step into a natural world *paradigm*. In other words, we can try to understand the “truth” of the world in terms of the natural world paradigm or the phenomenal world paradigm without actually leaving the phenomenal world. Entering the paradigm is using a particular epistemology; an entire structure with its own definitions for knowledge and its own methods for coming to that knowledge.

To illustrate this point, consider Roberto and Jessica, who are both looking at a red rubber ball. They start to discuss what they are seeing. The discussion might sound something like this:

Roberto: This is a red rubber ball.

Jessica: No, that’s just what you perceive. What we’re looking at is some of the matter out in the natural world. It is composed of molecules in a spherical configuration. The only reason we can see it is because the white light from our light bulb is striking the surface, and as the light is composed of light waves of all visible wavelengths, and the surface reflects light waves of around wavelength 559nm and absorbs the rest, these long waves strike our retina and inhibit our long cone photoreceptors, which excites the bipolar cells and so on, and after different messages have been transmitted to every corner of our brain, the message is eventually translated into the conscious experience of “red rubber ball.” So, whatever it is that is causing this perception bears no resemblance to the red rubber ball that we see. Thus, that is not really a red rubber ball.

Roberto: Sure, I recognize the fact that the object does not perfectly resemble what I perceive. But that doesn't mean that this is not a red rubber ball. You mentioned that the brain activity is translated into the conscious experience of red rubber ball. But how can that even possibly be explained? How does pure activity somehow create consciousness? This question is unanswerable, and red is something that cannot be reduced to a purely material explanation, even if the correlating brain activity can be explained. Thus, red exists, and so rubber ball.

Jessica is thinking of the world in the natural world paradigm and Roberto is thinking of the world in the phenomenal world paradigm, although they both live and perceive in the phenomenal world. For Jessica, the truth about the ball can only be understood in terms of the natural world, and she probably regards the redness as an illusion and a figment of her imagination. Roberto considers the red rubber ball as an object in itself. It makes sense for him to say that what he perceives is a reality. He does not deny the existence of the natural world object that Jessica described, but he will say he has never perceived that natural world object so there is no way that he knows what it is, and maybe that he cannot know it is there. He has dealt with red rubber balls and redness in general, so the redness may not be the whole story, but it is both true and more relevant to his life and conception of the world than the natural-world-object—even if the red rubber ball is dependent on the existence of the natural world object to exist.

Notice that I did not state that everyone is exclusively in a single paradigm: there are obviously many who straddle both paradigms, or more likely, conduct daily life in the

phenomenal world paradigm and only use the natural world paradigm while engaging in science or certain areas of philosophy. But for many of these latter people, primacy is given to the natural world paradigm. They often admit that although they use the phenomenal world paradigm when acting in everyday life, it is nothing more than an unavoidable illusion. Truth and reality exist in the natural world that we cannot perceive or know, but basic principles and theories can be constructed about the natural world that give us an approximation on the truth of the natural world.

Roberto did bring up an important point. How is it that the natural world creates the phenomenal world? A traditional religious response is that the natural world does not create the phenomenal world; we are given souls by God and the brain sends messages to the soul and the soul transmits messages back to the brain. In fact, this is exactly what the philosopher Rene Descartes proposed. He argued that the "I" was categorically distinct from the natural world. He did this by saying if there was anything about himself that he could doubt, it is the case that the doubted quality was not an essential part of himself. For example, it may be the case that I have been deceived about the existence of my left hand. But the left hand is not an essential quality of my existence. If I lost my left hand, I would still exist. In fact, the only thing that he cannot doubt is the fact he is experiencing *thinking*, even if everything that he *does* think is entirely false. And since there is thinking, there must be a thinking thing, which is himself. This leads to the famous proclamation, "I think, therefore I am." Assuming this argument is sound, all proves the existence of an *I*, albeit without proving the existence of anything in the world.

Thus, the *I* is distinct from the world, and he calls the *I* the soul. He also claims that it is through the pineal gland in the brain that the soul communicates with the body and the body

with the soul. This view is a metaphysical dualism, often simply called “dualism;” the belief that reality and humans are composed of two distinct types of nature. On the one hand is the material world, the world where matter exists and possesses extension (depth, width, length) and mass. The ideal world includes things like the soul and God, and this world does not operate by the same principles as the material world would. A soul has no dimensions nor mass, and it cannot be perceived with our sensory equipment (eyes, ears, etc.).

This paints a certain picture of the soul that is pervasive in our culture; not everyone agrees with it, but everyone is all too familiar with it. In Descartes’s explanation, the soul is a single, indivisible thing that resides in the brain and uses the brain to perceive the material world, *but it is not dependent on the brain for its existence*. The brain can die, and since the soul is merely attached to the brain but is not of the material world, the soul will persist in time after bodily death. (Descartes’s philosophy of the soul works perfectly well with religious beliefs that hold humans have an afterlife.) Finally, the “I” is an entity that exists outside of the material world, does not exist according to the rules of the material world, and yet, if the “I” possesses free will, it must be able to cause a change in the body, which is a part of the material world. In other words, *there must be a cause in the “I” that has an effect in the material world*. This is a very important point, and one that will be returned to later.

It should be noted that this metaphysical dualism is a very different sort of dualistic nature of the natural world versus phenomenal world. The dualism between natural and phenomenal world is perhaps better described as an epistemological dualism. Descartes’s dualism is metaphysical because it concerns two different sorts of worlds or dimensions that exist independently of and parallel to one another. There is interaction, but the rules that govern

the material world are not those that govern the spiritual or ideal world. The epistemological dualism is not about two different substances or worlds, but two different ways of seeing, understanding, or *knowing* the same world. The phenomenal world is not independent of the natural world, and it still behaves according to the natural world's laws of physics—at least to the same degree that the natural world behaves according to the laws of physics (virtually all the time, but not necessarily). (Would *dual-aspect epistemology* be a more apt term than epistemological dualism?)

Also, to avoid confusion, the material and ideal world of metaphysical dualism do not correspond to the natural and phenomenal world of epistemological dualism. The material and ideal world are concerning two different worlds that interact, but operate with different truths and principles. The ideal world is not subject to dimensions like mass and extension or the laws of physics. The natural and phenomenal world are about two different perspectives of the material world. If the dualists are right, then the ideal world comes into play in that the locus of awareness and selfness is the ideal “I,” and what it perceives is of the material world. The materialist monist would say there is no ideal world, and both the phenomenal world and natural world are aspects of the material world. The Cartesian dualist would posit that the “I” of the ideal world is the thing that experiences the perceptual world, but since the perceptual world may be nothing more than a hallucination, it cannot be considered the same thing as, or part of, the phenomenal world.

Regardless of whether we are materialists and need to answer Roberto's question or we are dualists and can avoid *that* problem, we all must understand the relationship between the natural world and the phenomenal world. Looking at the nature of both the natural world and

the phenomenal world, from an aparaigmatic perspective, (not really a perspective at all; this is essentially knowing all things without any bias, while having awareness and intentionality towards *all* things and everything as one equally, which is impossible to achieve for anything short of an all-knowing god) we can see some new things about the two worlds. One thing that we notice is that there is only one natural world, and everything shares it. All organisms, the Earth, gravitational forces, distant galaxies, and the space-time continuum all exist in the natural world. Also, the natural world is the same for everything. Although people may perceive it differently, it is absurd to think that the nature of the natural world changes from the vantage of a particular object (in fact, there are no particular objects, but more on that later). The natural world can be described as universal and objective.

On the other hand, there are multiple phenomenal worlds. Every being that experiences the world lives in their own private phenomenal world. In other words, no one can experience the same thing, from the same vantage of inside *my* head, that I am experiencing right now. Yes, Roberto and Jessica were both experiencing the same red rubber ball. In all likelihood, the images were very much the same. But Jessica's brain was processing a different grouping of light waves, and perceiving a different picture in her head than Roberto had. If Jessica had something wrong with the parietal lobe of her brain (the central unit for processing visual stimuli), she would be perceiving a very different picture of the world than the one Roberto is perceiving. Roberto's thoughts and experiences are his own; it is impossible for anyone else to experience them, even if Roberto can effectively communicate what he perceives to Jessica. For this reason, the phenomenal world is particular and subjective.

The phenomenal worlds are isolated in one way, and connected in another. The

phenomenal worlds are isolated metaphysically because there is no continuity from one phenomenal world to the next. However, people can communicate with one another to such a relatively high degree of agreement that it appears we live in the same phenomenal world. This happens because sensory equipment and brain dynamics from one person to the next is fairly similar; they seem to work the same way and by how communicable the world is, they likely translate the neuron firing into conscious experience in the same way. Roberto and Jessica can talk about the red rubber ball because they both see it in a very similar way and their word meaning is similar enough that language is meaningful. If their word meanings were very different, we are then basically dealing with people who speak different languages. If the sensory equipment of one person is so different from the status quo that they perceive the world in a radically different way, the person will find it very difficult to function in society; it is not surprising that this sort of person is often the patient of a psychologist or psychiatrist.

The point that I wish to convey with this distinction is that the world can be understood in two different paradigms, and what is understood as truth is different in each world. For Robert, the truth is that red does exist, and for Jessica, red is an illusion. This is not to say that truth is relative. In a paradigm, certain things are assumed true, so they operate as truths for the individual; but it does not follow that these functional truths are objectively true, from an ap paradigmatic perspective. In examining free will, the distinction between different understandings of truth needs to be noted. If our goal is to remove confusion about free will, then it must be understood from both paradigms. The confusion that exists is caused by a lack of understanding of these two paradigms.

Free-will as it is traditionally understood runs something like this: To have free will is

to have the ability to make my own choices. What this means is that there is something that is an *I*; an entity that is indivisible and gives me that spark of life that allows me to be aware and conscious. This is the thing that Descartes proved existed when he said “I think, therefore I am.” This thing is often called a soul. The soul communicates with the brain, which is a material object. In the material world, things happen by cause and effect. Free-will means that some actions have their initial cause in my mind: causes that are not effects of previous causes. If these causes were effects of previous causes, then my choices were determined, and if all of my choices were like this, then there is no free will. For free-will to exist, the *I* must be the ultimate determiner of *some* of my body’s behavior.

It is not necessary to say that free will require that *all* choices begin in consciousness. Most free will proponents admit that many of our actions are instinctual or habitual; we choose some things based on various influences that are so strong, the choice was not really a choice at all. For example, Roberto may flinch when Jessica snaps her fingers in his face, or Jessica may lose her temper and fly into a rage at Roberto, admitting later than she had lost control.

The traditional free will assumes that there is an *I*, that this *I* is a real thing that is distinct from my body, and this *I* is not a material thing. It also assumes that the *I* can interact with the material world. The traditional conception is also based on our *experience* of choice. I can take a simple action like choosing between light roast coffee or dark roast coffee, and recognize that I can choose either one. Nothing is stopping me from choosing one over the other, both choices are possible, and although I ended up choosing dark roast, I could have chosen the light roast instead. Thus, this traditional free will conception is based on the assumption that there are immaterial souls that can affect changes in the material world and that our capacity for free will

is proved by our experiences, much in the same way as Roberto proves “red” exists. There is a third assumption that *activity in the nonmaterial world can be a cause to an effect in the material world.*

From the phenomenal paradigm, I can understand the basis for the view. I cannot argue, nor do I want to, that I cannot make choices. I *can* make choices that I have determined. It is clear in choosing between the dark roast and light roast that I am presented with a choice and no one or thing is coercing me to pick the dark roast. I take the dark roast because I want it, and tomorrow I may want the light roast. In fact, even if I wanted the dark roast, I still may decide to choose the light roast, thus showing that even the “want of the dark roast” is not the necessary cause for the effect of choosing the light roast. I have to admit that most of my actions are habitual; I do not consider and intentionally choose all of my behavior. The casual itch, ordering another drink during a celebration, eyes following a pretty girl, or the precise movement of my legs during a walk are all behaviors that I choose, but often they are not intentional choices but habitual choices. (I admit that I come to this from introspection from my own thought processes, and it may be the case that nobody operates quite like that, but I think it is a fairly safe assumption to think that there are others, in fact virtually *all* others, who operate in this way—just as it is a safe assumption to believe that other people possess consciousness and self-awareness, even though I have never observed any consciousness other than my own.) Even among free-will proponents, there will be dispute about whether or not free will is in play during habitual choices, but all free will proponents must hold that free will is in play during at least some instances of intentional choices (a hard-free will proponent holds that all of our choices are exemplars of free will, while a soft free-will proponent may hold that some of our intentional

choices lack free-will; but so long as one can make a single intentional choice, there is such a thing as free will). But is it the case that simply because I *experience* free-will, that free-will exists? I would like to ask another question first: is it the case that simply because I experience red, that red exists?

As I explained above, in the natural world, red does not exist as we perceive it. It is not a color, unless color is defined by a lightwave of a wavelength within a certain range of wavelengths (the visual spectrum). It is strange to talk of red or color in this way, because by describing it in that way, we have done nothing to explain the phenomenal sensation of what red is; no amount of natural world paradigm talk can approach or do justice to the phenomenal paradigm nature of red. Jessica would say that this just shows that the sensation of red has no reality at all. For her, all of our conscious activity arises due to a dynamic brain; the brain possess billions of neurons, always in the process of firing in trillions of possible patterns, and from this, our conscious experience is somehow created. She will admit that no one can show how this translation occurs, but the alternative has been ruled out. The alternative is, of course, that consciousness is real, and because I experience the world as if there was a central *I*, there *must be* a central *I*. This is in contradiction to what brain research has gathered. Parts of the brain can be damaged, removed, or affected by electrical, chemical, or mechanical influences, and consciousness will be affected. However, no single part of the brain, if removed, will destroy consciousness. This eliminates the possibility of a single organ of the brain serving as the seat of consciousness, so a material indivisible *I* is ruled out, and a dualist “port” of communication between brain and soul is ruled out (Descartes thought the pineal gland existed for this function).

The experience of something does not necessarily imply its existence. For example, if I perceive an oasis in the middle of the desert, it may be a hallucination. If it is a hallucination, then I have perceived something that does not exist, although it is still true that the perception of the oasis did occur. Suppose my perception of the oasis was not a hallucination and I perceived an oasis was really there. In this case, we say the oasis is really there because there was an oasis 'out there,' in the natural world, independent of my perception of the oasis. To simply perceive the oasis is not proof that the oasis exists. The perception of the oasis occurs in the phenomenal world, but it requires the existence of the oasis-object in the natural world to honestly say that the oasis exists. Thus, the perception of an object does not necessitate its existence, because the object is of the natural world, which is not perceived, although the phenomenal object is proven to exist (the image of the oasis) simply by its perception. The perception of object x does not necessitate the natural world object x 's existence, but it does necessitate the phenomenal object x .

However, unlike the oasis, red is inherently and exclusively a phenomenal world object. As I explained above, there is no red in the natural world. The closest thing that corresponds with red in the natural world are objects that reflect light of wavelength 559 nm and the light waves themselves, but there is nothing *red* about these object; they are colorless (they are less than colorless, for "colorless" usually implies grey or transparency, both of which are phenomenal objects).

Most objects, and virtually everything that we deal with, exist in some form in the natural world, which when detected by our sensory equipment, is translated into a phenomenal object. For these things—chairs, oases, cups of coffee—they exist if they exist in the natural world

because they are natural world objects (the natural-world-object of chair is, of course, so different from our perception of chair that “chair” is in fact a phenomenal world object, but it refers directly to a natural world object that is not perceived and cannot be accurately thought about; in any case, we do not deal with that natural world chair in everyday life). However, since “red” is a phenomenal-world-object, then red does exist if the phenomena of red exists, for the two are identical.

However, existence for the phenomenal objects are of a different sort than existence for natural world objects. A rock in natural form can exist independently of any perception of the rock. Red cannot; it is dependent on the existence of a perceiver, who is dependent on the natural world. Furthermore, there is nothing about one person’s perception of red that is necessarily constant with another person’s perception of red. Roberto’s red sensation may be identical to Jessica’s yellow sensation from Roberto’s perspective; in other words, they both receive the same input of a light with wavelength 559nm, and they both call what they see red, because they have been taught that red corresponds with that particular wavelength. However, if Roberto could step inside Jessica’s consciousness, he *may* see that what he has always seen as red objects now appear as yellow, but Jessica would be adamant that these objects are red; the world does not correspond perfectly with sensation, nor does sensation correspond perfectly with the wavelength. (The word “red” and wavelength do not correspond perfectly either; three non-red wavelengths can be combined to create the sensation of red, which is then labeled as red. Yellow bananas do not reflect wavelengths that individually correspond to the sensation of yellow.)

Thus, the existence of red is contingent and amorphous in comparison to natural world

objects, and “existence” should be considered to carry different meanings in each world paradigm. What does all of this mean about the relationship between the perception of free will and the existence of free will?

If free will is merely a phenomenal object, then it exists, as I have shown above that I experience free-will. On the other hand, if free-will is the sort of thing that should be considered a natural world property then its existence is not proved from the premise that it is perceived. How are we to determine if free will is a phenomenal or a natural world object?

One determiner is simply in how free-will is defined, which is arbitrary. If the definition is simply having the ability to choose, then clearly we do possess free-will; I engage in the activity of choosing hundreds, if not thousands of times per day. However, this is a relatively weak form of free-will. As the existence of phenomenal objects are contingent on the activities of the natural world, the phenomenal character of free-will is contingent on the activities of the natural world as well. Even when the sensation of red is given to consciousness independently of any light waves (as in imagination, dreams, or hallucinations), the red still occurs as a result of a particular firing formation of neurons. The phenomenal free-will permits the possibility that choices are determined by the firing of certain neurons reacting to other neurons, stimuli (in the case of receptor neurons) or various drugs floating around the synapse clefts. In other words, yes, we have the ability to choose, but just as the red we perceive has no existence, is illusory, and is not even meaningful from the natural world paradigm, free-will also lacks existence and is not even meaningful from the natural world paradigm. Stated in other terms, this conception of free-will allows that all of our choices are determined despite the phenomenal experience of free-will. This would be a sort of free-will that allows us the ability to choose x or y , but that

this choice is determined in the natural world independently of the perception of the choice, and prohibits the actor from making any choice other than the one made. Free-will based on nothing more than the experience of free-will is not free-will in the traditional sense at all.

The traditional sense of free-will is one that requires a choice that is perceived, just as in the previous form of free will, but also allows that the actor had the choice to not make the decision that was actually made. This genuine free will means that the I was the initial cause of the behavior that exists in the physical world. What does this mean?

In order for a being to have free will, that being must be able to have the power to affect a change in the world. Roberto asserts that he has free will. He says, "I can choose to drink this cup of coffee or not to drink this cup of coffee." He is asserting that his I can be the cause for an effect in the material world. If the I is a thing of the ideal world, then the I must have the power to affect a change in the material world. The cause exists in the ideal world and the effect exists in the material world.

There is a problem with this analysis, however. In order for causality to bridge the gap between the ideal world and the material world, the ideal world is going to need to activate something in the material world. In terms of making a choice and translating it into material behavior, such as choosing to flex my muscle, the choice in the ideal world must excite the appropriate neurons in the motor cortex of my brain; this would be the immediate effect, which would serve as a cause to another effect, and so on until the message is received by my muscle to flex. The choice must be the initial cause, otherwise the choice is determined by a previous cause, in which case this is not an act of free will. In the ideal world, this is possible. Assuming the ideal world exists, it does not need to operate on the principles of causation that govern the

material world. Something can begin without having a cause to begin. But the same does not apply in the physical world. The first law of thermodynamics states that energy cannot be created or destroyed. It can change form from one sort of energy to another, or even into matter and matter into energy. Energy can also coagulate or disperse, such as in the collision between a bat and a ball. Energy is a material world thing; it is not possessed by the ideal world, at least, not in its material form. If it was possessed by the ideal world in its same form, then a choice could not exist as a first cause, because that would imply that some sort of process has come into being out of nothing, which is also in violation of the first law of thermodynamics.

In order to translate the choice of the ideal world into the activity of the material world, the choice needs to activate the neurons. Neurons require energy to fire. An individual neuron receives messages from other neurons, external energy (in the case of sensory neurons), or chemicals floating in the brain. The only message a neuron can receive is excitatory or inhibitory. If the neuron receives enough excitatory messages, and does not receive enough inhibitory messages to balance out the neuron, then the neuron may reach an action potential. The action potential is fixed, but once it is reached, an electro-chemical reaction involving the exchange of potassium and sodium ions begins. If the action potential is not reached, there is no further activity, but regardless of how far beyond the action potential the energy of the neuron goes, the level of activity is always the same. This exchange occurs through the single axon that a neuron possesses: a long rod that connects to other neurons (Carlson 42-62). The practical effect is that each neuron is simply an on-off switch: ones and zeroes.

All of our physical behavior can be traced to these neuron firings, which can be traced further and further back. This reveals a complicated pattern of causation, for the catalyst for any

behavior can be traced back to sensory stimulation (where external energy was transformed into patterns of neuron firings), but assisted by messages coming from memories, habits, or chemical balances in the system. Every neuron, in order for it to fire, requires energy inputted from outside that neuron. If a neuron had no energy coming in from beyond the neuron, then firing would be impossible. If it fired, it would have created energy, in violation of the first law of thermodynamics.

We cannot observe the ideal world, because our sensory equipment detects physical stimuli, not spiritual stimuli. Our eyes detect light waves, not psychic or spiritual stuff from another dimension. For this reason, we cannot make any predictions or theories about how the ideal world operates; we cannot even provide verifiable evidence for its existence. However, if it exists, it cannot affect change in the material world. To do so would require the firing of neurons without a material cause: the outright creation of energy: a violation of the first law of thermodynamics. But this is what is required for free will to exist. Having ruled out the possibility of cause and effect bridging the gap between the ideal and the material, *there can be no free will.*

If there is an ideal world, then we cannot observe it. If there is an ideal world, then it cannot have any affect on the material world, either in the form of a conscious I making a decision or for any other reason. This sort of interaction would require something that is impossible; a miracle for example, but miracles by their very nature are impossible to rationally believe in, for their very nature is a contradiction to what is physically possible, and thus absurd. If my I exists in the ideal world, then even if it can make choices, the choices cannot translate into any brain process, meaning that the movement of my arm really isn't an act of free-will. If

it can be shown that even the thought of moving my arm causes specific neurons to fire, then even this thought has material causes, and even the thought is determined. It has been shown by psychophysicists and neurologists that thinking of moving my arm causes (or is caused by) the firing of neurons, and none of them will deny it, to my knowledge.

If our *I*s exist in the material world, and only in the material world, then everything about the *I* is determined; all processes that the *I* is involved in are parts of the chains of causation that determine the world. Everything in the natural world is in process; it is a single substance that is always shimmering, things slowly manifesting, moving about, then dispersing again. Every mode of this process is determined by other activities in this substance, and nothing is “free” in the sense that a mode, which is nothing more than a sub-process, can somehow be its own determiner of its future activities. Everything is conditional.

What causes the confusion, then? Why have so many people come to think that there is a free will? How can the phenomenal defense be constructed? The phenomenal defense requires, that the *I* is not experiencing the causes of the *I*'s choices. Brain activity often causes conscious experiences, but that does not mean that consciousness is of a separate substance as the brain (in the dualistic interpretation). Conscious experiences do have causes, and these causes do not exist within our phenomenal world: they exist in the natural world. The cause for my seeing the color red does not exist in the phenomenal object of the red rubber ball; it comes from the direction of some colorless, round rubbery object “out there,” and the light waves that are reflected are transformed into neuron firings, traveling to different parts of the brain, firing more neurons, and so on until red rubber ball exists in my phenomenal world. All of this brain activity, since it exists outside my phenomenal world, is not something I am aware of: I am

Heraclitus recognized that the universe is a single fire, and we, infinitesimally small sparks with ridiculously short life spans, are completely at the mercy of the universe.

Of the Logos which is as I describe it men always prove to be uncomprehending, both before they have heard it and when once they have heard it. For although all things happen according to this Logos men are like people of no experience, even when they experience such words and deeds as I explain, when I distinguish each thing according to its constitution and declare how it is; but the rest of men fail to notice what they do after they wake up just as they forget what they do when asleep.

Heraclitus called this eternal fire the Logos, a term that has been translated as the Word and Divine Reason, and it possesses a meaning that is strikingly similar to that of Spinoza's God; a God without desire, purpose, or personality: it simply is the eternal that directs everything. This God is merciless, but without revenge. The chaotic, directionless nature with an infinite number of forces working against each other necessarily create a universe in constant conflict. "It is necessary to know that war is common and right is strife and that all things happen by strife and *necessity*." Our section of the war usually moves slowly, so we are ignorant that it is even there, but for those that recognize the nature of the universe, freedom is possible. "War is the father of all and king of all, and some he shows as gods, others as men; some he makes slaves, others free." But this freedom is not something that is inherent in some, and which war merely exposes. It must be earned through knowledge and clear, critical thinking. "Thinking

well is the greatest excellence and wisdom: to act and speak what is true, perceiving things according to their nature.”

Works Cited

Carlson, Neil. The Physiology of Behavior. 8th ed. Boston: Pearson, 2004.

Kirk, G.S., J.E. Raven, and M. Schofield. The Presocratic Philosophers. 2nd ed. Cambridge:
Cambridge, 1983.

de Spinoza, Benedict. The Ethics. Trans. R.H.M. Elwes. New York: Dover, 1955.